WORLDDONORS TRACKING DONATION SYSTEM

By MANEA ABDULLAH BADHEYAB

Bachelor of Computer Science(Software Engineering)

UNIVERSITI MALAYSIA PAHANG

UNIVERSITI MALAYSIA PAHANG

DECLARATION OF THESIS AND COPYRIGHT

Author's Full Name : MANEA ABDULLAH MANEA BADHEYAB

Date of Birth : _____ : ____

Title WorldDonors Tracking Donations System_

_____

_____

Academic Session : __SEMESTER: II 2022/2023_____

I declare that this thesis is classified as :

☐	: CONFIDENTIAL	(Contains confidential information under the Official Secret Act 1997)*
☐	: RESTRICTED	(Contains restricted information as specified by the organization where research was done)*
☑	: OPEN ACCESS	I agree that my thesis to be published as online open access (Full Text)

I acknowledge that University Malaysia Pahang reserves the following rights:

1. The Thesis is the Property of University Malaysia Pahang
2. The Library of University Malaysia Pahang has the right to make copies of the thesis for the purpose of research only.
3. The library has the right to make copies of the thesis for academic exchange.

Certified by:

_____
(Student's Signature)

MANEA ABDULLAH
_____
New IC/Passport Number
Date: 18th JUNE 2023

_____
(Supervisor's Signature)

ROZLINA MOHAMED
_____
Name of Supervisor
Date: **24th JUNE 2023**

NOTE : * If the thesis is CONFIDENTIAL or RESTRICTED, please attach a thesis declaration letter.

SUPERVISOR'S DECLARATION

I/We* hereby declare that I/We* have checked this thesis/project* and in my/our* opinion, this thesis/project* is adequate in terms of scope and quality for the award of the degree of *Doctor of Philosophy/ Master of Engineering/ Master of Science in ……..

_____

(Supervisor's Signature)

Full Name : **ROZLINA MOHAMED**

Position : **SENIOR LECTURER**

Date : **24th JULY 2023**

_____

(Co-supervisor's Signature)

Full Name :

Position :

Date :

STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at University Malaysia Pahang or any other institutions.

_____

(Student's Signature)

Full Name : MANEA ABDULLAH MANEA BADHEYAB

ID Number : CB20135

Date : 18 June 2023

WORLDDONORS TRACKING DONATION SYSTEM.

MANEA ABDULLAH MANEA BADHEYBA

(SUPERVISOR: DR. ROZLINA BT MOHAMED)

Thesis submitted in fulfillment of the requirements
for the award of the degree
Bachelor of Computer Science (Software Engineering) with Honors

Faculty of Computer Science

UNIVERSITI MALAYSIA PAHANG

JUNE 2023

ACKNOWLEDGEMENTS

In embarking on this project, I am deeply indebted to the invaluable guidance and support of several individuals who have played a crucial role in its successful completion. I would like to extend my sincerest gratitude to Dr. Rozlina bt Mohamed, my esteemed supervisor at the University Malaysia Pahang, whose unwavering commitment and expert advice have been instrumental in shaping and refining this project. Her continuous guidance and numerous consultations have provided me with invaluable insights and direction throughout this journey. Additionally, I am immensely grateful to Dr. Fauziah bt Zainuddin for her invaluable contributions and mentorship, which have greatly enhanced my academic endeavours.

Furthermore, I would like to express my heartfelt appreciation to all those who have directly and indirectly supported me in accomplishing this project. My deepest thanks go to the entire faculty and staff of my university, Malaysia Pahang, for providing me with an exceptional educational environment and the opportunity to grow both academically and personally. It has been an immense privilege and honor for me to be a student at this esteemed institution. I would also like to extend my gratitude to my beloved family, whose unwavering trust, encouragement, and support have been my driving force throughout this endeavour. Their constant belief in me and their unconditional love have given me the strength and motivation to overcome challenges and pursue excellence. Additionally, I am indebted to my friends, whose invaluable comments, suggestions, and discussions have served as a source of inspiration, propelling me to enhance the quality and scope of my project.

Finally, I would like to express my heartfelt thanks to everyone who has contributed to the successful completion of this project. Your assistance, encouragement, and collaboration have been truly invaluable, and I am deeply grateful for your unwavering support.

ABSTRAK

Sistem Derma Penjejakan WorldDonors ialah penyelesaian teknologi canggih yang bertujuan merevolusikan cara derma dijejak dan diurus. Sistem ini memanfaatkan kuasa teknologi digital untuk menyediakan maklumat masa nyata tentang status derma, dari sudut sumbangan hingga ke tempat pengagihan. Platform ini menyediakan pandangan yang komprehensif tentang proses pendermaan, membolehkan semua pihak berkepentingan kekal dimaklumkan tentang kemajuan dan kesan sumbangan mereka. Sistem Derma Penjejakan WorldDonors menyediakan repositori terpusat maklumat tentang derma, penerima dan projek. Data ini boleh diakses oleh pihak berkepentingan yang dibenarkan, termasuk penderma, organisasi bukan untung dan agensi kerajaan. Sistem ini menyepadukan pelbagai sumber data untuk memberikan pandangan menyeluruh tentang proses derma, termasuk kemas kini masa nyata mengenai penggunaan dana, butiran penerima dan kemas kini projek.

Platform ini juga memudahkan komunikasi dan kerjasama antara pihak berkepentingan, membolehkan mereka berkongsi maklumat dan idea untuk meningkatkan kesan sumbangan mereka. Dengan menyediakan platform yang selamat dan telus untuk menjejak derma, Sistem Derma Penjejakan WorldDonors membantu membina kepercayaan dan meningkatkan kecekapan proses derma. Matlamat sistem ini adalah untuk memastikan setiap sumbangan sampai kepada penerima yang disasarkan dan digunakan dengan berkesan untuk membawa perubahan positif.

ABSTRACT

The WorldDonors Tracking Donation System is a cutting-edge technology solution aimed at revolutionizing the way donations are tracked and managed. The system leverages the power of digital technologies to provide real-time information on the status of donations, from the point of contribution to the point of distribution. This platform provides a comprehensive view of the donation process, enabling all stakeholders to stay informed about the progress and impact of their contributions. The WorldDonors Tracking Donation System provides a centralized repository of information on donations, recipients, and projects. This data can be accessed by authorized stakeholders, including donors, non-profit organizations, and government agencies. The system integrates various data sources to provide a comprehensive view of the donation process, including real-time updates on the utilization of funds, recipient details, and project updates.

The platform also facilitates communication and collaboration between stakeholders, allowing them to share information and ideas to enhance the impact of their contributions. By providing a secure and transparent platform for tracking donations, the WorldDonors Tracking Donation System helps to build trust and increase the efficiency of the donation process. The goal of this system is to ensure that every donation reaches its intended recipient and is utilized effectively to bring about positive change.

TABLE OF CONTENT

DECLARATION

TITLE PAGE

ACKNOWLEDGEMENTS ii

ABSTRAK iii

ABSTRACT iv

TABLE OF CONTENT v

LIST OF TABLES ix

LIST OF FIGURES x

CHAPTER 1 INTRODUCTION 1

1.1 Introduction: 1

1.2 Problem Statement: 2

1.3 OBJECTIVES: 3

1.4 SCOPE: 3

1.5 REPORT ORGSNSTION: 4

CHAPTER 2 LITERATURE REVIEW 5

2.1 Introduction: 5

2.2 Review existing websites: 5

2.2.1 Islamic Relief Malaysia: https://islamic-relief.org.my/ 5

2.2.2 YAYASAN UMP: https://yayasan.ump.edu.my/index.php/ms/ 7

2.2.3 LaunchGood: https://www.launchgood.com/ 9

2.2.4 Social Media: 11

2.3 Comparison of Existing systems. 12

2.4 Methods used to track: 13

2.4.1 Divided the total money. 13

2.4.2 Use Track Receipt ID number. 14

2.5 Review Blockchain method used in Conference Paper 15

2.5.1 Aid, Charity and Donation Tracking System Using Blockchain: 15

2.5.2 A Track Donation System Using Blockchain: 17

2.5.3 Blockchain-based donations traceability framework: 18

2.6 Comparison of the review papers 19

2.7 Summary 20

CHAPTER 3 **21**

METHODOLOGY **21**

3.1 Introduction 21

3.2 Project management framework: 21

3.2.1 Requirements Planning 22

3.2.2 User Design: 22

3.2.3 Construction: 23

3.2.4 Cutover: 23

3.3 Project Requirement : 24

3.3.1 Functional Requirements: 24

3.3.2 Non-Functional Requirements: 25

3.3.3 Constraints and Limitation: 26

3.3.4 User requirements: 26

3.3.5 Software and Hardware Requirements: 26

3.3.6 Work Breakdown Structure(WBS): 27

3.4 Proposed Design: 28

Flowchart: 28

Context diagram: 30

Use case diagram: 30

Activity diagram: 43

Storyboard 47

3.5 Data Design: 52

Entity Relationship Diagram (ERD) 52

Data Dictionary 52

3.6 Proof of Initial Concept: 57

3.6.1 Prototype: 58

3.7 Testing Plan/Validation Plan: 72

3.8 Potential of Use Proposed Solution: 72

3.9 Gantt chart: 72

CHAPTER 4 **73**

IMPLEMENTATION, RESULTS AND DISCUSSION 73

4.1 Introduction 73

4.2 Development Tools 73

4.3 Implementation 74

4.3.1 WORLDDONOR web application 74

4.3.2 Login and Registration 75

4.3.3 Donor pages 80

4.3.4 Organization Page 88

4.3.5 Admin Pages 96

4.3.6 Controller of the PHP connection 103

4.3.7 The Tracking Part 108

4.3.8 Realtime Database Setup 110

4.4 Testing 113

4.4.1 User Acceptance Test (UAT) 114

4.5 Result And Discussion 119

4.6 Summary 120

CHAPTER 5 **121**

CONCLUSION 121

5.1 Introduction 121

5.2 Limitation And Constraint 121

5.3 Objective Revisited 125

5.4 Future Work 126

REFERENCES **128**

APPENDIX A SAMPLE APPENDIX 1 **129**

LIST OF TABLES

Table 1:Advantages and Disadvantages of existing system of Islamic Relief website. 7
Table 2: Advantages and Disadvantages of existing system of YAYASAN UMP. 9
Table 3: Advantages and Disadvantages of existing system of LaunchGood. 10
Table 4:Advantages and Disadvantages of existing system of LaunchGood. 12
Table 5:Comparison table of existing systems. 12
Table 6:Comparison of the review papers. 19
Table 7: Manage Login Table. 31
Table 8: Manage Donate and Payment Table. 33
Table 9: Manage MyDonation Table. 34
Table 10: Manage Main Page Table. 35
Table 11: Manage Account Table. 36
Table 12:Manage Donation Table. 37
Table 13:Manage Transactions Table. 39
Table 14:Manage Update Transactions Table. 41
Table 15:Donor data dictionary table. 52
Table 16:Organization data dictionary table. 53
Table 17:Donations data dictionary table. 53
Table 18:DonateReceipt data dictionary table. 54
Table 19:Admin data dictionary table. 54
Table 20:Donation_Box data dictionary table. 55
Table 21:Donation_Receipt data dictionary table. 55
Table 22:Transactions data dictionary table. 55

LIST OF FIGURES

Figure 1Global Growth Number of Donation ([1], n.d.). 1
Figure 2: Islamic Relief Malaysia website 5
Figure 3: Islamic website divide the donation amount into four types. 6
Figure 4: Payment process in Islamic Relief. 6
Figure 5: Receipt given from Islamic Relief after donating. 6
Figure 6: YAYASAN UMP website 7
Figure 7: YAYASAN UMP website divide the donation amount into four types. 8
Figure 8:Payment process in YAYASAN UMP website. 8
Figure 9: LaunchGood website. 9
Figure 10: The two options to donate provide from LaunchGood. 10
Figure 11: The user donation in the Given list at LaunchGood website. 10
Figure 12: Examples of social media advertisements. 11
Figure 13:Total money of the donations divided among the donation's websites. 13
Figure 14:Goodwill website. 14
Figure 15: The page which user can enter the track number in Goodwill. 14
Figure 16: The system design. 15
Figure 17: The system architecture. 16
Figure 18:Proposed Blockchain Track Donation System Architecture. 17
Figure 19: Blockchain Track Donation System Report 17
Figure 20:blockchain-based donation traceability framework. 18
Figure 21: The structure of blockchain. 19
Figure 22: The i-th block in the system of the blockchain structure. 19
Figure 23: RAD model with its phases. 21
Figure 24:Work Breakdown Structure. 27
Figure 25:User Flowchart. 28
Figure 26:User Flowchart A. 29
Figure 27: Admin Flowchart. 29
Figure 28:Context diagram. 30
Figure 29:Use case diagram. 30
Figure 30:Use Case Diagram for Manage Login Module. 31
Figure 31:Use Case Diagram for Manage Donate and Payment Module. 32
Figure 32:Use Case Diagram for Manage MyDonation Module. 34
Figure 33:Use Case Diagram for Manage Main Page Module. 35

Figure 34:Use Case Diagram for Manage Account Module. 36
Figure 35:Use Case Diagram for Manage Donation Module. 37
Figure 36:Use Case Diagram for Manage Transactions Module. 39
Figure 37:Use Case Diagram for Manage Update Transaction Module. 41
Figure 38:main page 47
Figure 39:register page for the Donor and Organization. 47
Figure 40:Login and reset password pages. 48
Figure 41:Donor main page and donation page. 48
Figure 42: Payment and receipt pages. 48
Figure 43: MyDonation and the tracking donation pages. 49
Figure 44:Admin login and main pages. 49
Figure 45:Admin Users and Donation requests pages. 49
Figure 46:Admin Transaction page 50
Figure 47:Organization Main and Donation pages. 50
Figure 48: Organization request donation page. 50
Figure 49:Organization Transaction page. 51
Figure 50:Organization update transaction page. 51
Figure 51:Entity Relationship Diagram for WordDonors. 52
Figure 52: describe how the flow of the tracking happened in the data. 56
Figure 53:Donation Box. 56
Figure 54:Donation Box after take an amount from it. 57
Figure 55:Login page , donor or charity organization can enter to the system from this page. 58
Figure 56:Donor registers page from here they can fill in their information. 58
Figure 57:Charity Organization registers page from here they can fill in their information, also they can select the funs method of the organization. 59
Figure 58:Reset password page, if the user forgets the password can enter the email of the account and the system will send a link to reset the password shows in the next figure. 59
Figure 59:After the system gives the link, user can enter the new password and need to confirm it. 59
Figure 60:The main page of the WordDonors which display the active donation to the users. 60
Figure 61: Donor main page the main page which display the active donations. 60
Figure 62:This page for the user how did not login and after user click on the donation from the main page, the system will display all the details of the donation. 60

Figure 63:This page for the Donor who already login and if the donor clicks on the donation from the main page, the system will display all the details of the donation. 61

Figure 64:Page for anonymous or ghost mode, after choosing the donation and amount of donate user need to fill in the information to process the payment. 61

Figure 65:After filling in the donate information user need to add all the required details of the payment and then click on process payment. 61

Figure 66:After done the payment in the ghost mode the user will get notify from the system about the donate status if done successfully or not. 62

Figure 67:If the user wants to get a receipt need to login to the system. 62

Figure 68: Donor donates page which need to enter the information of the donate. 62

Figure 69:After filling in the donate information Donor need to add all the required details of the payment and then click on process payment. 63

Figure 70:After done the done successfully, the system will give the donor receipt which has all the information of the donate with the tracking number. 63

Figure 71:My Donation page, the donor can see all the donate had been done and also from this page the donor can enter the donate tracking number to see all the details about what the donor donate use for. 63

Figure 72:Example of using tracking number to check the details, the system gives no details because the donate amount still in the donation box. 64

Figure 73:another example of using the tracking number to check the details in the system gives all the details of what the donated amount used for. 64

Figure 74:If the user wants to see the image of what the amount is used for can click on the image button. 64

Figure 75:Donor Account page and from here the user can edit the account information. 65

Figure 76:Charity organization main page. 65

Figure 77:Charity organization donations page. 65

Figure 78:Charity organization donations page and the page to send the donation request to admin. 66

Figure 79:Donations page After send the donation request. 66

Figure 80:Charity organization Transaction page. 66

Figure 81:Organization Transaction withdrawal information page. 67

Figure 82:Organization bank accounts. 67

Figure 83:Organization Transaction withdrawal information page after the withdrawal. 67

Figure 84:Organization Update Transaction page which displays all the transaction withdrawal information and its status. 68

Figure 85:After clicking on the transaction they want to update, they can enter the proofs and click on send to update it. 68
Figure 86:Update transaction page after done the update. 68
Figure 87: Admin Login page. 69
Figure 88: Admin main page. 69
Figure 89:Admin Users page, allowed the admin to check and edit the user data. 69
Figure 90:Admin Donations request page. 70
Figure 91:Admin request donations confirmation page. 70
Figure 92:Admin Donations request page after update. 70
Figure 93:Admin Transaction page, display all the transactions from the organization. 71
Figure 94:Admin Transaction page after clicking on not proofed transaction. 71
Figure 95:Admin Transaction page after clicking on Proofed transaction with the image and receipts. 71
Figure 96 The pages flow and files. 74
Figure 97 General idea about the code files for the system 74
Figure 98 Login page for WorldDonors website 75
Figure 99 The system requires user to enter the data before click on Login. 76
Figure 100 User select type at the Login page. 76
Figure 101 Notification of the login , the Sign-up and forget password links. 76
Figure 102 Login Page source code. 77
Figure 103 Forget Password page with the source code. 77
Figure 104 The switch function of the page for the type of user. 78
Figure 105 Sing-up pages for both users Donor and Organization. 78
Figure 106 Username notify message. 79
Figure 107 Donor Signup page source code. 79
Figure 108 Donor Organization Signup page source code 80
Figure 109 Main page for the Donor user. 81
Figure 110 Donor Main page source code. 81
Figure 111 Donation Information for Donor. 82
Figure 112 The required data to Donate or to do a payment. 83
Figure 113 Donate notifies message. 83
Figure 114 Donate receipt. 84
Figure 115 The receipt print page. 84
Figure 116 Donor Profile information at Account page. 85
Figure 117 Account page for Donor source code. 85

Figure 118 MyDonation page with the Donor donations. 86
Figure 119 Donation and receipt information. 86
Figure 120 MyDonation page if the Donor does not have any donations. 87
Figure 121 Donor MyDonation page result of the tracking. 87
Figure 122 MyDonation page source code. 87
Figure 123 The home page and the navigation bar of the organization. 88
Figure 124 Organization Donation page. 89
Figure 125 Organization Donation page source code. 89
Figure 126 Donation ID live check. 90
Figure 127 Organization Donation page with the live check function. 90
Figure 128 Organization Transaction page. 91
Figure 129 Organization transaction page source code. 91
Figure 130 Display the transaction information page . 92
Figure 131 Source code of the transaction display page. 92
Figure 132 The Approve Transaction page. 93
Figure 133 Approve transaction page source code. 93
Figure 134 Update transaction page. 94
Figure 135 Display update transaction page source code. 94
Figure 136 Account page for the Organization. 95
Figure 137 Organization account page source code. 95
Figure 138 Admin Main page . 96
Figure 139 Admin User list at Donor table page. 96
Figure 140 Admin User List Organization table. 97
Figure 141 Admin User List page source code. 97
Figure 142 Admin Donation request page. 98
Figure 143 Donation request page source code. 98
Figure 144 Check the donation data and he Dismiss or Confirm buttons. 99
Figure 145 Check donation information page source code. 99
Figure 146 Admin Organization request. 100
Figure 147 Admin Registration Source code. 100
Figure 148 Admin Transaction page. 101
Figure 149 Admin Transaction page source code. 101
Figure 150 Admin Tracking Box page. 102
Figure 151 Tracking Box page source code. 102
Figure 152 Organization Donation ID live checking. 103

Figure 153 Donor and Organization Id live checking. 104
Figure 154 if user signup with the button for Donor. 104
Figure 155 if user signup button for Organization. 104
Figure 156 Send the donation request . 105
Figure 157 Donor Donate the system adds and update the database. 105
Figure 158 Generate and save the tracking number. 105
Figure 159 If non-user or Ghost user make the donate. 106
Figure 160 Organization makes a transaction. 106
Figure 161 Update and proof the transaction. 106
Figure 162 if user click login button. 107
Figure 163 Display Donor and Organization Profile. 107
Figure 164 Admin User List Search button. 107
Figure 165 The confirm and dismiss organization registration. 108
Figure 166 A general explanation of how the tracking done in the system. 108
Figure 167 The flow of the Donation box. 109
Figure 168 The Tracking transaction source code from the controller file. 109
Figure 169 Admin table. 110
Figure 170 Donor Table. 110
Figure 171 Organization table. 111
Figure 172 Donations table. 111
Figure 173 Donations Receipts table. 111
Figure 174 The test or the donation box table. 112
Figure 175 The tracking box table. 112
Figure 176 Transactions table. 112
Figure 177:Gantt Chart For PSM1 129
Figure 178 Gantt Chart for PSM2 129
Figure 179:storyboard prototype. 130
Figure 180: Figma design prototype for all pages. 131
Figure 181 guardian of the project flow and functionality. 132

CHAPTER 1

INTRODUCTION

1.1 Introduction:

There are many organizations around the world that help many people and many issues using charity. After any natural disaster or economic crisis many people get damaged and lost the simple things to live like food, water, or even their houses. Those are some examples of critical issues. There are other issues like families needing an amount of money for health problems or a student needs to complete the studying etc. They try to share their stories around the world so that donors who want to help can donate to them, there are many charity organizations in this field, and they have different methods to get the donation some of them collect old clothes from the people who want to donate them and then they can deliver those clothes to the needers. And some try to give food and water to the area affected by the crises that led to famine and a shortage of nutritional resources. Moreover, some charity organizations collect money from donors and then use it for different donation types like building houses, giving nutritional resources, Digging wells for remote areas, and many others.

After getting the benefits, it was hard to deliver to them the benefits of the charity and in some cases, it is so expensive which may take most of the money. Nowadays, with the internet and the new technologies there are many websites built to give this field of charity the suitable environment tools that make it easy for people to donate through the internet using the online payment system no need any more to go by yourself to give them your donation.

Figure 1Global Growth Number of Donation ([1], n.d.).

However, most of the website finish the process after done the payment. So, the payer doesn't know what happened after that, do the money still at the organization? or it is already given to the people who need it? there is no tracking system used.

To raise the people to donate we can use tracking system to gives them details about their donations as possible as can. So, they can know the state of the issues or the donation which make them feel trusted to the process of the organization or to the website, and if they are comfortable, that lead to another donation in another time which mean increasing of the number of people who donate, and the number of people who get the benefits.

1.2 Problem Statement:

When it comes to finding a comprehensive and reliable donation system equipped with robust tracking capabilities, individuals often face significant challenges. Existing donation systems in charitable organizations frequently lack the necessary features to track donations effectively, leading to non-transparent processes and creating doubts in the minds of donors. This absence of a custom-built application specifically designed for donation tracking creates additional hurdles, particularly for organizations that do not have dedicated websites or IT expertise to develop such a system. Relying solely on social media platforms for fundraising campaigns further compounds the issue, as it hampers the ability to track and verify donations.

Charitable organizations heavily rely on their own websites or social media platforms to promote their donation campaigns and raise funds. However, not all organizations have the resources or technical capabilities to develop and maintain a dedicated website with advanced tracking functionalities. This limitation significantly hampers their ability to track donations accurately, ensure transparency in the utilization of funds, and provide donors with the necessary proof that their contributions are making a real impact. Furthermore, using social media platforms as the primary means of conducting donation campaigns presents its own set of challenges. While social media provides a broad reach and easy access to potential donors, it lacks the necessary infrastructure to track and monitor donations effectively. This often leaves both donors and organizations in a state of uncertainty, as they are unable to track the progress of the donation, verify its proper utilization, or receive updates on the impact made by their contributions.

To address these multifaceted challenges, there is an urgent need for a specialized donation system application that incorporates robust tracking features. Such an application would empower charitable organizations, regardless of their technical expertise or website presence, to efficiently manage their campaigns and ensure transparency throughout the donation process. By providing a reliable and user-friendly platform, the application would enable seamless tracking of donations, enhance transparency, instil donor confidence, and simplify the overall donation process. A comprehensive donation system with tracking capabilities would not only benefit donors by providing them with real-time updates and proof of impact, but it would also support charitable organizations in their efforts to build trust and engage more effectively with potential donors. With a dedicated application for donation tracking, organizations could efficiently manage their campaigns, track and acknowledge contributions, and provide

detailed reports on the utilization of funds. This, in turn, would enhance accountability, foster donor trust, and encourage greater participation in charitable causes.

In summary, the lack of an effective and reliable donation system with comprehensive tracking capabilities presents numerous challenges in the donation ecosystem. By addressing these challenges through the development of a custom-built application, charitable organizations would be able to overcome the limitations posed by website development and social media reliance, while donors would have the assurance and transparency they seek when making impactful contributions.

1.3 OBJECTIVES:

The following is an explanation of the purpose of the study:

i. Study the existing website that focuses on donations.

ii. Identify the method used in the donations website and tracking donation systems.

iii. Design and develop WorldDonors donation website and upgrade it with the tracking system.

1.4 SCOPE:

User scope:

- Allow donor to donate for the donations.
- Allow the organization to send a request for donation.
- Allow the charity organizations to withdrawal and do the transaction for the donation box.
- Allow the charity organizations to update the transactions proof receipt and images.
- Admin has the ability to see all the donation request and approve or reject them.
- Admin can check the users and transaction information in the system.

System scope:

- The system provides the ability to donate for a donation.
- The system provides the ability send request for donation campaign.
- The system records the information of donation in the database.
- The system provides all available donation in the system with the details.
- The system provides the ability to tracking the donate and gives it's information.

Development scope:

- Contains multimedia such as graphics and text.
- Using Figma, lucid-chart and Draw.io application to design the system.
- Technology use are HTML, CSS, JavaScrpit, PHP. MySQL

1.5 REPORT ORGSNSTION:

This thesis consists of three chapters.

- **Chapter 1**: discussed the introduction of my project which is the Tracking Donation System. This chapter consists of the problem statement, objective, and scope of the project.
- **Chapter 2**: discussed the literature review, and this chapter will discuss three existing websites which are also used to publish and collect donations from people and a comparison between them will be conducted. It also included the methods used to track the donation and three conference papers describing how Blackchin used to track donations among the charity organizations.
- **Chapter 3**: will talk about the methodology for doing this project. This chapter will describe on applied Tracking Donation System framework and the requirements of the project.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction:

There are many donation websites these days, but many of them don't provide all the characteristics and features that people who want to donate need, this section will discuss existing donation websites and the approaches used to track donations.

2.2 Review existing websites:

2.2.1 Islamic Relief Malaysia: https://islamic-relief.org.my/

"Islamic Relief is an independent international humanitarian aid. Until now, Islamic Relief has assisted more than 120 million people. The scope of Islamic Relief assistance covers emergency assistance, integrated sustainable development, disaster risk reduction and advocacy."

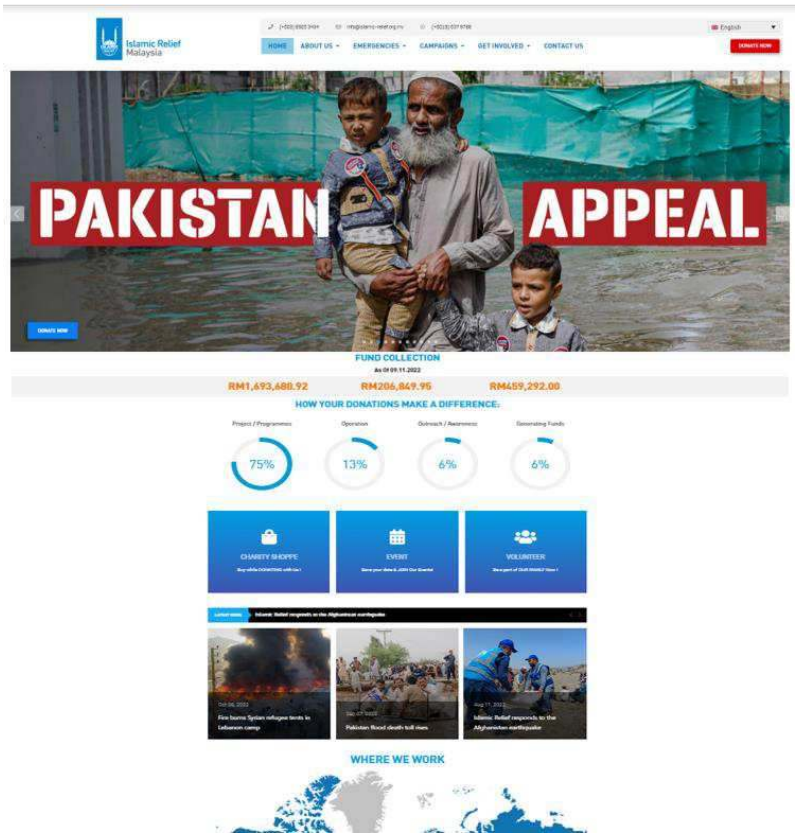


Figure 2: Islamic Relief Malaysia website

The website allows you to choose from the list of donations like donating for schools, Sedekah, Yateem, Emergencies…etc. After selecting the category and the amount of donation which is divided into four types RM10, RM50, RM100, or a specific amount.

Figure 3: Islamic website divide the donation amount into four types.

Moreover, the *Islamic Relief* gives you two choices of identification rather you want to be an Anonymous/Unknown donate and the system will not give you any receipt, or you can add your information which will confirm your identification and you will get a receipt including all the details showing in the Figuer0. After that you can continue with the payment process given In the Figure4 below which include real example of Successful donate and the receipt from *Islamic Relief*.

Figure 4: Payment process in Islamic Relief.

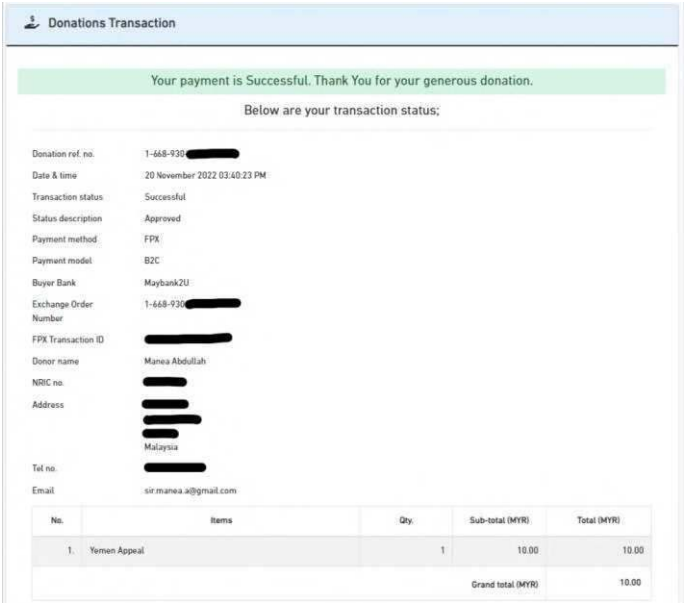


Figure 5: Receipt given from Islamic Relief after donating.

However there is no future information about your donation which mean the process end after the payment done successfully so the donor cannot know what happened to the donation.

Table 1:Advantages and Disadvantages of existing system of Islamic Relief website.

Strength	Many choices of donation around the world
Weakness	There is not any information provided after the donation, only an email message of confirmed the payment.
Advantages	Among a large union that brings together many countries, which facilitates the delivery of donations.
Disadvantages	Only owners can publishing a new donation

2.2.2 YAYASAN UMP: https://yayasan.ump.edu.my/index.php/ms/

A university efforts to collet and managing funds from the puplic, companies and institution for the welfare of UMP students as well as funding educational and community programs and providing additional learning facilities udesd by students and the university.

Figure 6: YAYASAN UMP website

The website has ability to show how much money has been donated or we can say, the total donation represented by percentage, which gives the basic information about the donation status only as a total.

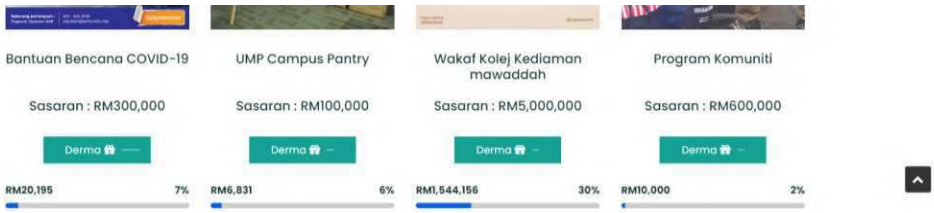


Figure 7: YAYASAN UMP website divide the donation amount into four types.

After click on the donate button, you will directly go to the payment page and from there you can add your and bank details to confirm the donation , then they give you a receipt and again same as *Islamic Relief* website the process done after the payment only one thing will be change which is the percentages of the donation will increase as result of your donation.

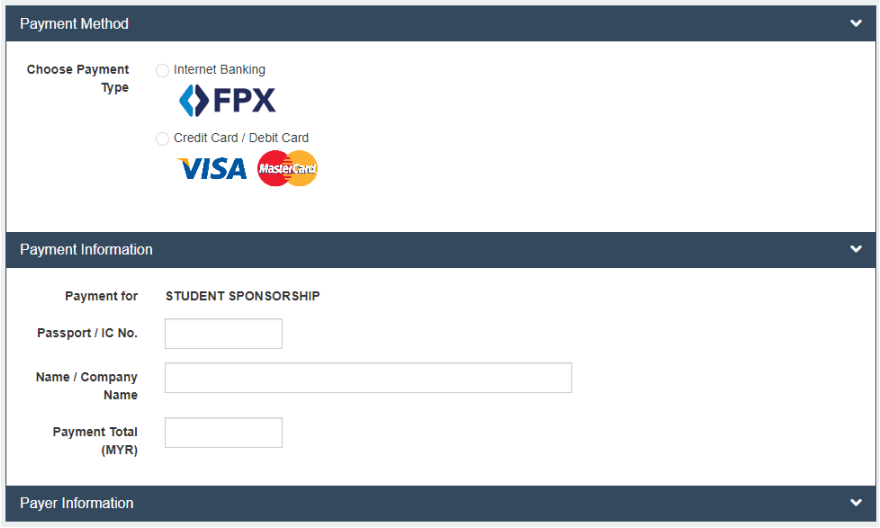


Figure 8:Payment process in YAYASAN UMP website.

Table 2: Advantages and Disadvantages of existing system of YAYASAN UMP.

Strength	Allows the user to know how much has been donated in the donation using percentage "%".
Weakness	There is no option to register on the website.
Advantages	Many methods are used to confirm the payment(Multi-Banks)
Disadvantages	Provide few donations and a long time to update them to give other donations.

2.2.3 LaunchGood: https://www.launchgood.com/

A team working that tackles challenge while grounded in values. They built a crowdfunding platform focused on the Muslim community around the world. In the first two years, the website has raised more than $3 million.

Moreover, it is one of several crowdfunding platforms to raise money from the public, which circumvents traditional investment avenues with 0%-profits.

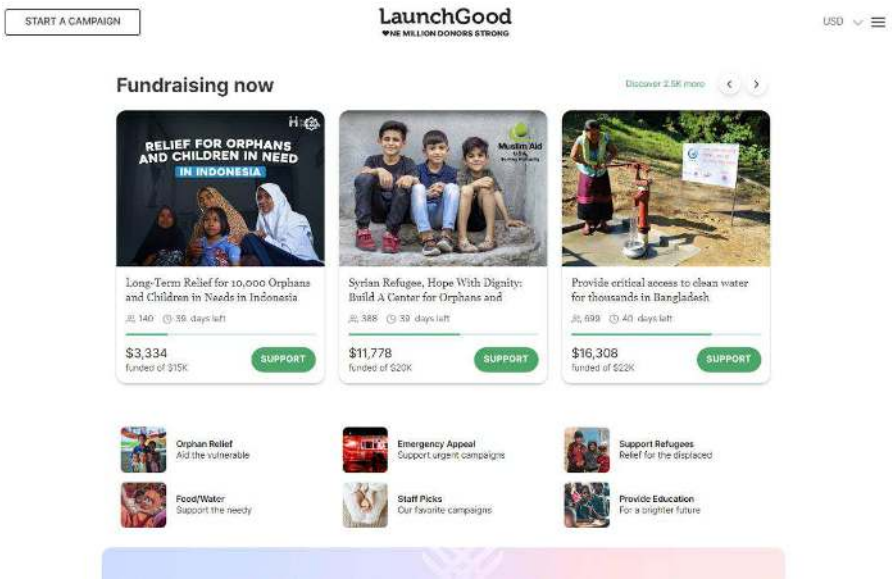


Figure 9: LaunchGood website.

The website publishes many different stories about people who need help and gives a final total number of donations,100k as an example. After that people around the world

donate to them until they get to the final amount of the donation or the final date for the donation.

Figure 10: The two options to donate provide from LaunchGood.

We can see that the website provides two options to donate ,account or as guest. However even using account you can only know your given not what happened to them.

When the user donated, it will be shown in the *Giving List* as an active donation until the donation finished.

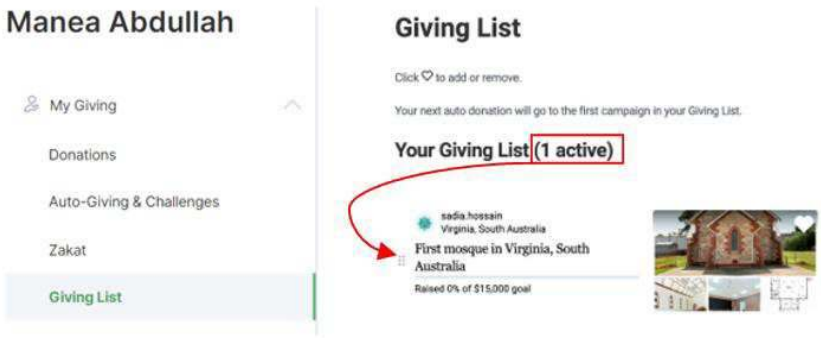


Figure 11: The user donation in the Given list at LaunchGood website.

Table 3: Advantages and Disadvantages of existing system of LaunchGood.

Strength	Allows the user to know how much has been donated in the donation using percentage “%”. Allowe yje users to know who many days left.

Weakness	Anyone can start a new donation which lead to many donation in the website with a few donors to have.
Advantages	Many methods are used to confirm the payment(Multi-Banks) Use data of user donation to make the donation list.
Disadvantages	Not all the donation will be display in the main page so some donation will be hard to find and can not get the full amount of donation.

2.2.4 Social Media:

In addition, another way for donors to donate to a charity is through the through social media advertisements. This way does not require any particular software or hardware. But some traditional users may believe that this is not a legitimate way to donate from it. They might be concerned that the donated items won't get to the right people. As a result, they decide not to donate anything.

Figure 12: Examples of social media advertisements.

Table 4:Advantages and Disadvantages of existing system of LaunchGood.

Strength	Anyone can start a donation campaign, which gives many donations available on the website
Weakness	Not all of the donations are complete as reason of many donations there
Advantages	Allows you to see all the information about the donation and the time given to complete the total amount of the donation.
Disadvantages	Very costly if paid from an overseas countries

2.3 Comparison of Existing systems.

Table 5:Comparison table of existing systems.

CHARACTERISTIC	**Islamic Relief Malaysia**	**YAYASAN UMP**	**LaunchGood**	**Social Media**	**WorldDonors Tracking Donations**
Globally known	Yes	No	Yes	No	No
Trusted	Yes	Yes	Yes	No	Yes
Different giving options	Yes	Yes	Yes	No	Yes
Login or as Guest	Yes	No	Yes	No	Yes
Percentage of the donation	No	Yes	Yes	No	No
Activation days	No	No	Yes	No	No
Use tracking donation	NO	No	No	No	Yes
Protection and security	Yes	Yes	Yes	No	Yes
Evaluate & update regularly	Yes	No	Yes	No	Yes
Allow Publishing Campaign	No	No	Yes	Yes	Yes

2.4 Methods used to track:

2.4.1 Divided the total money.

How does the total money of the donations divided among the donation websites or donation organizations? actually it is depended on the company, but the most used strategy is as below:

- The non-profit organization has different types of funds for different purposes, including:
- General funds, which are the main operating funds used for routine expenses and are typically made without donor restrictions in the form of grants, gifts, and annual subscriptions.
- Restricted funds, which are made from donations that have specific donor-imposed restrictions and can only be used for a specific purpose.
- Fixed asset funds, which are used for maintaining or purchasing buildings, property, and equipment, usually from special grants or with support from the general fund.
- Endowment funds, which are created from gifts and are meant to be maintained permanently, with the interest and investment returns used for the organization's purposes.

Figure 13:Total money of the donations divided among the donation's websites.

After we divide the money spending type it will be easy for us to know where does the money spend after identifying the type of spending, it is more consistent and flexible rather than use all the total amount as only one objective or one box, for example, a charity box divided into 4 types of boxes, each one of them responds for the General funds, Restricted funds, Fixed asset funds, and Endowment funds, respectively.

2.4.2 Use Track Receipt ID number.

To make the tracking efficient we can use ID number so we can make it as a reference.

A Goodwill company and many use the same idea as we can see from the figure below, they give ID number for every receipt made, so the user can in any time check the tracking details by using this ID number in the receipt.

Figure 14:Goodwill website.

By visit the website in the figure below from Goodwill who build it for their users to track their donate or product, the user can easily enter the tracking number in the receipt and the system will display all the information.

Figure 15: The page which user can enter the track number in Goodwill.

2.5 Review Blockchain method used in Conference Paper

2.5.1 Aid, Charity and Donation Tracking System Using Blockchain:

Aid, Charity and Donation Tracking System Using Blockchain | IEEE Conference Publication | IEEE Xplore

In the Paper the used the decentralized contribution tracking system built on blockchain technology's smart contracts records the transactions of the donor(s) and collects data on how the donations are being used.

Without the requirement for a reliable third party, smart contracts on the blockchain facilitate the direct transfer of tokens or virtual currencies between the parties involved in a transaction. The platform accepts and permits donations in the form of cryptocurrencies.

Due to the unique nature of each bitcoin transaction, the blockchain makes it simple to follow them. High levels of transparency and social responsibility can alleviate donors' concerns, inspire them to give, and enhance the positive perception of generous giving.

They divided the user of the system into three types:

- The Non-Government Organizations-NGO represent the organizations that work for the social cause. And the system will allow them to raise their requirements as per a specific format over the system dashboard.
- The Government Body approves the NGOs' requirements Only after this approval will the requirements be visible on the donor's dashboard, where they can be donated.
- The Donor who can view the requirements that were raised by the NGOs and approved by the government. They can donate as per their ability and preferences to different.

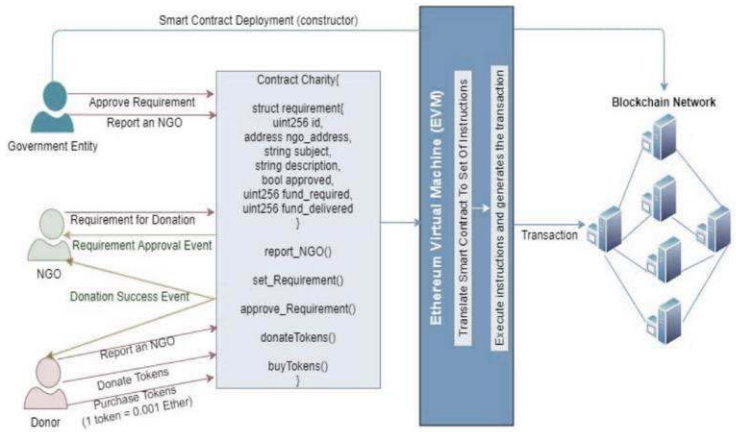


Figure 16: The system design.

The system design consists of a list of methods shown below:

- **Smart Contract**: smart contracts are basically a set of rules that are agreed upon by multiple parties in a blockchain network. It facilitates transparent transactions, eliminates the need for a third party, and promotes decentralization in the system.

- **Ethereum Virtual Machine**: The provider of a runtime environment for each node to execute their instructions. The smart contract is transformed into a set of instructions executed by nodes or computers.

- **Transaction**: As the proposed system is implemented on Ethereum blockchain, it implements each function of the smart contract in form of a transaction

- **Ethereum Network**: to add the transaction into that block over the network. So, this processing is done by the set of active users in the network called miners.

-

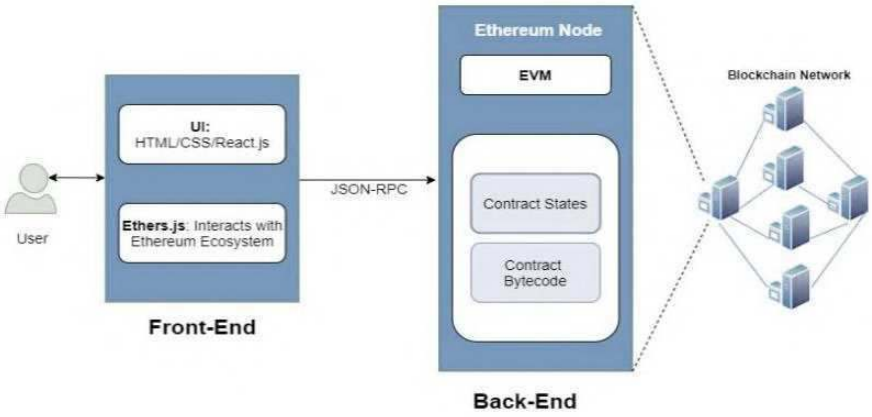


Figure 17: The system architecture.

The donor will be able to make donations, keep track of transactions, and see their total contribution on the dashboard. The following will permit the giver to get the most recent condition of exchange. The Non-Government Organizations demands would be valid if approved by the government agency. Additionally, they will be able to monitor the transactions.

2.5.2 A Track Donation System Using Blockchain:

A Track Donation System Using Blockchain | IEEE Conference Publication | IEEE Xplore

The confirmation of transferring aid and donations to beneficiaries within predetermined constraints is the focus of the proposed system. Since all network participants were assigned to the Blockchain system through predetermined authentication methods, there was no longer a third party between donors and poor people.

The system was split into several participants with specified roles. The proposed model has been turned into a real system that was tested and implemented using Blockchain technology. As a result, each transaction has its participants and their assets with a smart contract which makes the transaction a successful one.

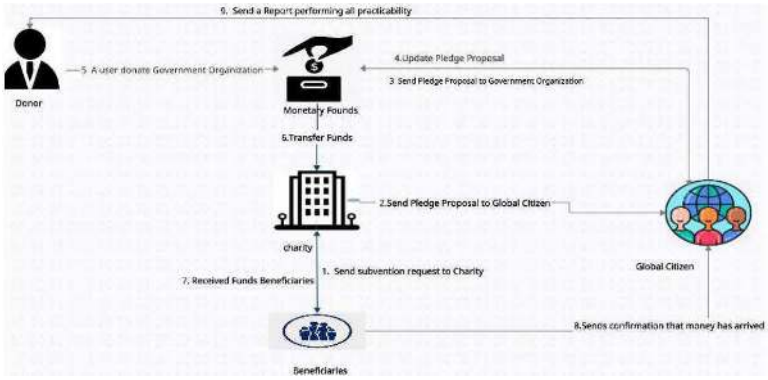


Figure 18:Proposed Blockchain Track Donation System Architecture.

After using the smart contract, terms, and rules when it's verified the transaction will not be changed anymore. A report with a transaction ID was sent to the user to verify transactions.

The implemented system saved time reduced the cost of donations and reduced the risk of reaching suspicious campaign donations or terrorist projects. And from the website users can track or send and receive reports created and a final report form was generated to ensure the transparency of the donation process.

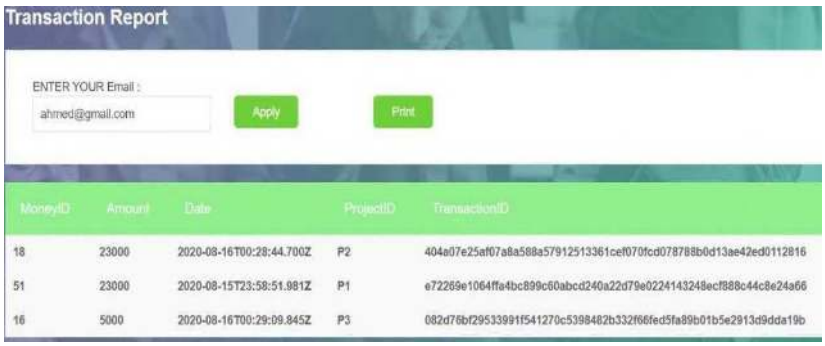


Figure 19: Blockchain Track Donation System Report

2.5.3 Blockchain-based donations traceability framework:

Blockchain-based donations traceability framework - ScienceDirect

A framework for putting into action a charity donation system based on the blockchain has been proposed in this study to make the charity donation process more traceable and transparent.

In addition, a web-based system based on the proposed framework has been implemented to test its adaptability and effectiveness. They include the ability to donate, receive a notification, and trace donations, among other positive aspects of the proposed system that have been successfully implemented.

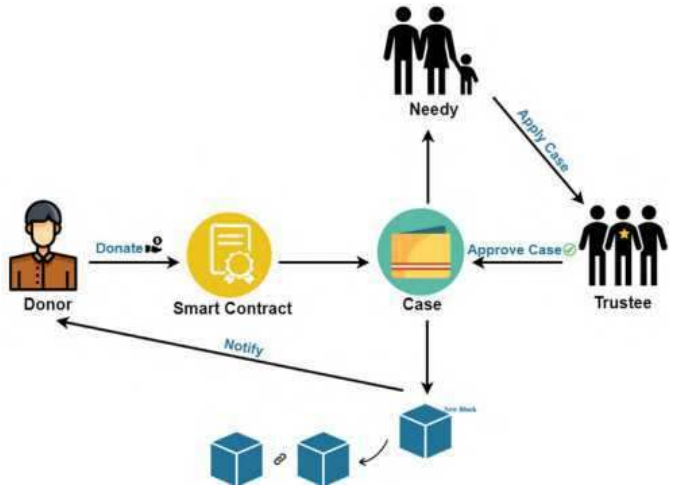


Figure 20:blockchain-based donation traceability framework.

Moreover, a security solution made to stop reentry attacks was also used to keep everyone's privacy and anonymity intact. To evaluate the proposed system, numerous test cases were run, demonstrating that it was effective at allowing charity donations to be traced.

The results of study findings that blockchain is an appropriate technology for use in the charity sector, where it can be adopted to replace conventional traceability techniques that are ineffective at meeting the needs of the involved parties or resolving the issues associated with centralized operation. Through a safe and reliable environment that makes use of immutable transactions to ensure the integrity of the charity donation process, the proposed framework makes it possible to track charitable donations in real-time until they are received by the intended recipients.

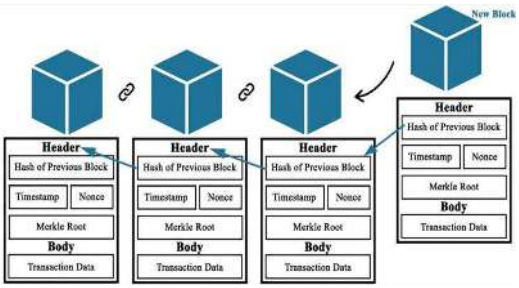


Figure 21: The structure of blockchain.

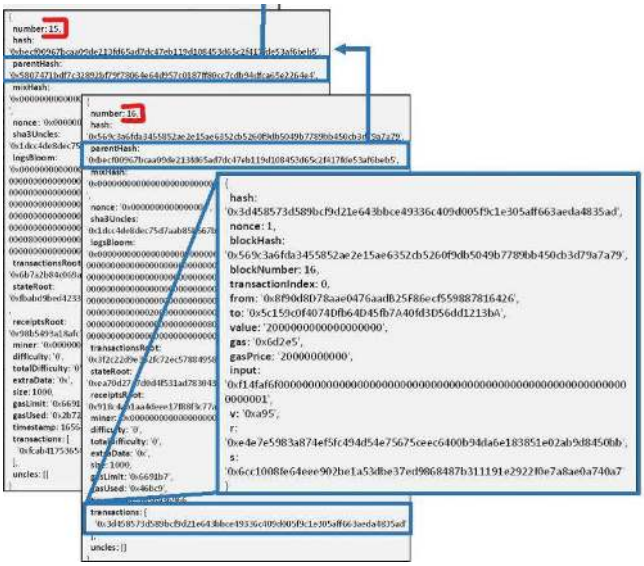


Figure 22: The i-th block in the system of the blockchain structure.

2.6 Comparison of the review papers

Table 6:Comparison of the review papers.

CHARACTERISTIC	Blockchain-based donations traceability framework	A Track Donation System Using Blockchain	Aid, Charity & Donation Tracking System Using Blockchain
Has Donation Website	No	Yes	Yes
System Report	Yes	Yes	Yes
Need Third-party	No	No	No
Use Smart Contract	Yes	Yes	Yes
Web3	Yes	No	Yes
Costly	Yes	No	No
Easy to Use & Adopt	No	Yes	No

2.7 Summary

Blockchain technology has been demonstrated to have useful applications in the charity sector, yet the sector has seen relatively low adoption rates compared to other industries such as healthcare and supply chain.

Despite this, the charity sector is just as important as these other industries and could greatly benefit from the implementation of blockchain technology.

While research on the use of blockchain in the charity sector is still in its early stages, it is expected to have a significant impact in the future.

However, currently, it can be challenging to compare different blockchain systems in the sector due to a lack of standardization. To address this, establishing performance standards in the charity sector could be a crucial step in evaluating various blockchain systems and ensuring their quality and effectiveness.

CHAPTER 3

METHODOLOGY

3.1 Introduction

The programming process is important for the proposed project because it ensures that the program will be completed within the allotted amount of time and money, the programming process is especially important for the proposed project. There are numerous methods, including incremental, agile, Rapid Software Development (RAD), and waterfall.

3.2 Project management framework:

The Rapid Application Development model was chosen as the system development methodology for this proposed project based on a number of factors. Within the limited time allotted to develop this proposed system, timeline flexibility is one of the criteria.

RAD helps cut down on development time. This is due to the fact that this model focuses on creating a prototype at the outset of the process. This could help developers avoid lengthy revision processes for their code.

In addition, the project's scalability is the subsequent criterion that has an impact on this methodology. This methodology is more adaptable and flexible, enabling developers to implement feedback elements more easily, in addition to the numerous modifications that will be made to the system's prototype at various fidelity levels prior to designing and developing the system. As a result, any feedback received can be easily incorporated into subsequent development by the development system.

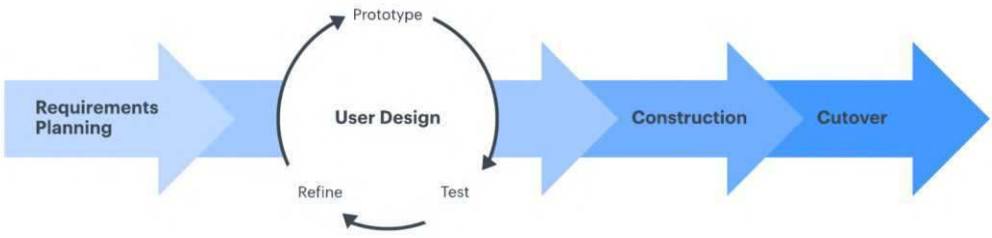


Figure 23: RAD model with its phases.

3.2.1 Requirements Planning

In the RAD model, the first phase is Requirement Planning. The requirements and specifications are defined during this phase. This phase's goal is to get a general understanding of the problem that was solved, the system's scope, and the requirement that will be used during development. In addition, this phase is crucial for learning and familiarizing oneself with the relevant existing system. Additionally, the system flow that will be developed will be identified by planning for the requirements.

The Tracking donation System requirement planning begins with a series of meetings between the developer and his or her supervisor. By establishing the system's and project's overall objective, these meetings kick off the development process. Researching the charity system current environment is the first task in this stage. The information gathered through this task will serve as the discussion's starting point.

By looking at other systems that are similar to the charity system such as Islamic Relief Malaysia, YAYASAN-UMP and LaunchGood, we can be familiar with the current system‘s environment.

The subsequent errand in this stage is to characterize prerequisites of the proposed framework. This task determines the proposed system's scope and outline model. It is important to make sense of the usefulness of the framework and the information plan that will be developed in the framework. This task will also identify the difficulties and constraints of the system that may have an effect on the development process.

3.2.2 User Design:

After gathering the project's requirements, the RAD model moves on to the user design phase. People will continuously be able to comprehend, modify, and provide feedback on the system's functioning model during this interactive phase, which is designed to meet the requirements. The prototyping, testing, and fine-tuning phases of this phase include Analysing the design data that correspond to the proposed system area is the goal of user design. In addition, system structure and screen layout are important aspects of user design.

The Charity Management System's system design outline will be created during this phase. This task identifies and designs the interaction between a number of functions and data. The system's structure and layout will be incorporated with the delivery of the required functions and design component.

To improve the system's design. The developer will examine the Charity websites' emerging design for interaction analysis and prototyping. It is possible to determine whether the system designs are consistent through analysis and prototyping. In addition,

the data or function that is missing will be identified. The inconsistencies will be resolved and the outline system design as well as the complete system model will be checked.

3.2.3 Construction:

The construction phase of the RAD model is the third phase. In this phase, prototypes and beta systems from the previous phase are used to create working models. During this phase, the developer is concentrating on integrating, testing, and implementing the user feedback to an acceptable level of performance.

Preparing for rapid construction is the task for this phase. Both the CASE software that system developers can use and the development environment, which serves as their workspace, need to be finalized. Additionally, the Charity system and the tracking system database must be built on top of the fundamental data structure that was created during the user design phase. In addition, the testing strategy must be finalized, and the system's software and hardware must be prepared.

In addition, the primary undertaking in this phase will be the construction of the Charity Management System. The developer will ensure that the system's coding and design for each function are completed in accordance with the Charity website System requirements and prototype.

A designed prototype will be iteratively modified by the developer to incorporate user feedback into a functioning system.

During this phase, the Charity Management System's working system will undergo unit, integration, and system testing to ensure smooth operation.

In order to validate the system's operation and the tracking system's effectiveness, this task requires the generation of test data.

3.2.4 Cutover:

Cutover is the final stage of Rapid Application Development. This phase's goal is to make sure that the system can do as much as the user wants it to. Before launch., the working model's features, functions, interface, and aesthetics will be finalized in this phase.

Converting data from the current system to the new Charity website system is a necessary step in this phase. The existing data sources will be formatted so that the new system can access them. And for the Tracking Donation System will also be incorporated into the production environment.

In addition, this phase necessitates user training for the system. The purpose of this task is to demonstrate how the new system works to potential users. Several individuals, including the developer supervisor and evaluator, may participate in this training.

3.3 Project Requirement :

Based on research into philanthropic activities and knowledge of an existing system that is comparable to the project under consideration. The Donation System has a number of requirements, restrictions, and limitations. This system has 3 types of users Admin, Donor, and Charity organization.

Besides, the modules that will be in the proposed system are Manage Registration and log in\out, Manage The donation, Manage Donation Request, Manage Tracking donation and Manage Admin Confirmation.

3.3.1 Functional Requirements:

Manage Registration**:**

- The system should allow the user to register a new account and then login to the system or using the system as a guest.
- The system should provide user the ability to a password recovery if the user forgot their password.
- The system should allow user to edit the profile information.

Manage The Donation:

- The system shall display available donation items that registered into the system.
- The system shall delete the item that has fully receive form donation entries.
- The system should update for the new donation balance and new donation.

Manage Donation Request:

- The system should allow the charity organization to add donation information into the system.

- The system shall be able to let donator to view support application information.
- The system should allow the charity organization to update or cancel the donation.
- The system shall add the available charity donation into the system database after getting the approve from the admin.

Manage Tracking Donation:

- The system should manage the traffic of the donation from the donors.
- The system should find any receipt of the donation from the database to display its details.
- The system should update the data of the tracking system to avoid any data redundancy.

Manage Admin Confirmation:

- The system should allow the administrator to confirm the donation request.
- The system should allow the administrator to edit or update information in the system.
- The system should allow the Admin to check and see all the details of the organization transaction.

3.3.2 Non-Functional Requirements:

- System should only be access when users enter their username and correct password.
- The system should easily maintenance and evolution for future based on user requirements.
- The system should be available to access via multi-platform devices.
- The system should be able for system administrator to resolve for any bugs or system fault.

3.3.3 Constraints and Limitation:

There are no fully confirmed systems that can be built, every system has constraints and limitations. The system should access the right user to their profile and only them after confirming the email and password, however, the guest user can donate directly to the donation, but no receipt be given.

The system must use the internet so if no connection to the internet the user cannot do anything as the system cannot get any data from the user.

Limited time, this project will take longer to complete because it required extra time to verify that the website could be expanded. Creating an account, logging in, managing requests, viewing requests, updating Donations, view, checking, and tracking donations are the primary functionalities of this system.

Limited features, to do donate we need to use a real payment as it is a donation website which collect amount of money from the donors unfortunately it is out of the ability of this project it will be very hard to add the payment methods and the project will be complex in a way that will not finish in time.

There are many features that might be included on the website and the tracking testing, so due to time constraints, needs to be done according to the time.

3.3.4 User requirements:

The user requirement come from multiple research and existing systems across the interknit which allow to see and validate all the requirement which help to design and develop the system.

3.3.5 Software and Hardware Requirements:

The process of system development involves a number of important considerations, one of which is the specifications of both the software and hardware components. These specifications are vital to ensuring that the system is developed and implemented successfully and that it runs smoothly and efficiently.

Furthermore, it is crucial that the system is able to meet the intended goals of both the software and hardware components.

Software requirements:

Windows 10.

Visual Studio.

Web design language (HTML,CSS,JS,PHP …etc) .

Design tools Figma, Draw.io.

Hardware requirements:

Internet connection to access to the system.

laptop with sufficient memory, processing power, and storage:

MSI gf65 , Intel Core i5-9th , 8GB .

Kingston-SSD 500g , HDD-1TB, NVIDIA GeForce GTX1650.

64-bit Operating System.

3.3.6 Work Breakdown Structure(WBS):

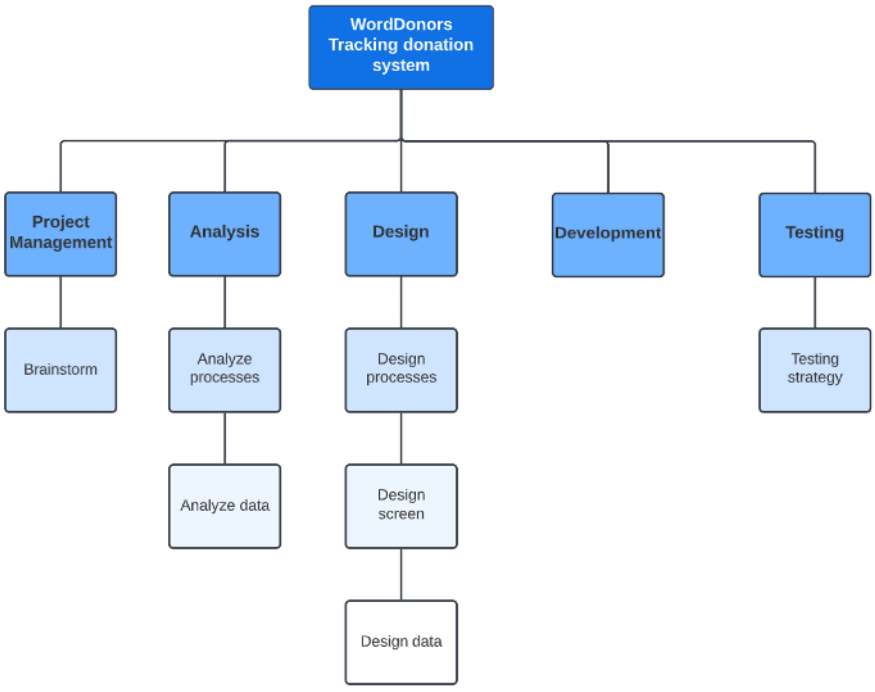


Figure 24:Work Breakdown Structure.

3.4 Proposed Design:

Flowchart:

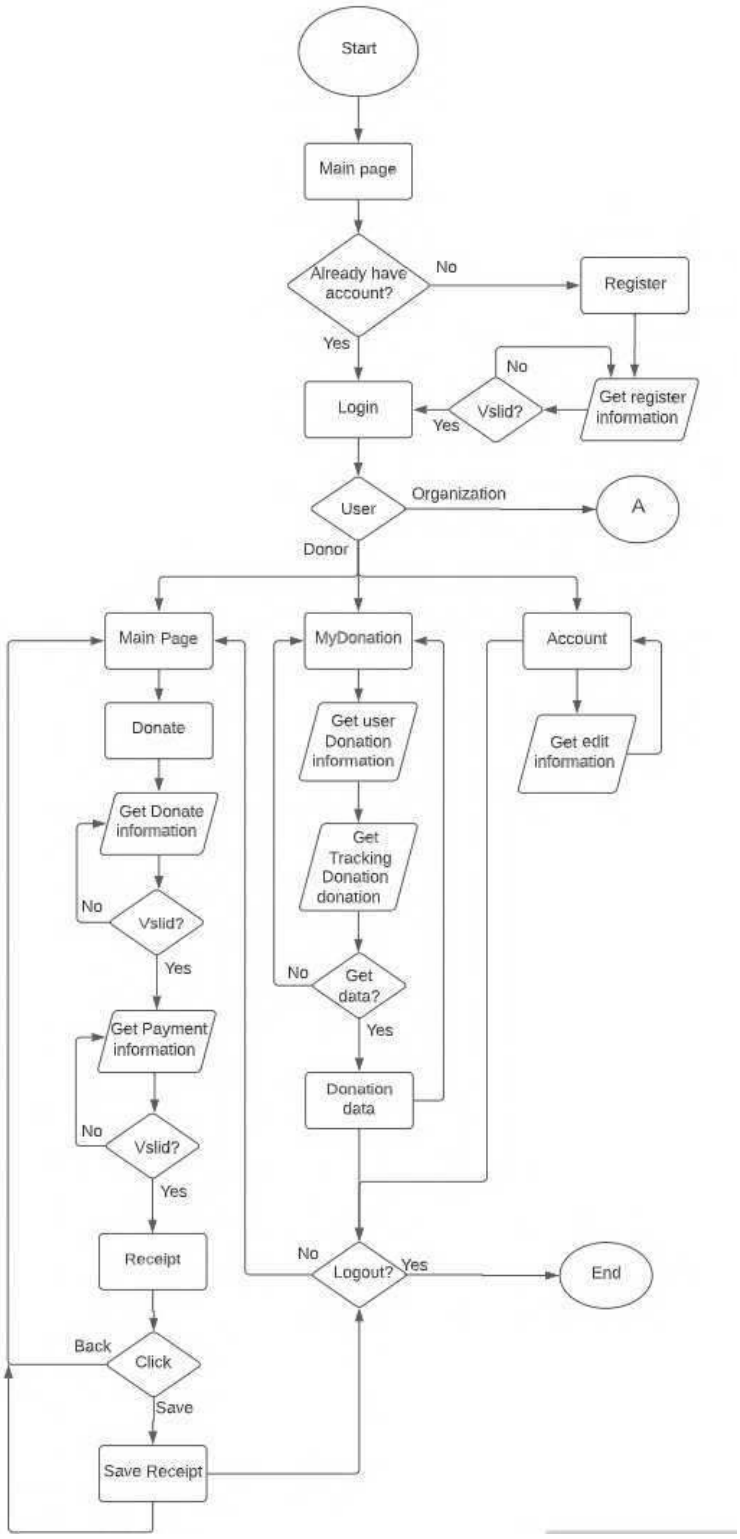


Figure 25:User Flowchart.

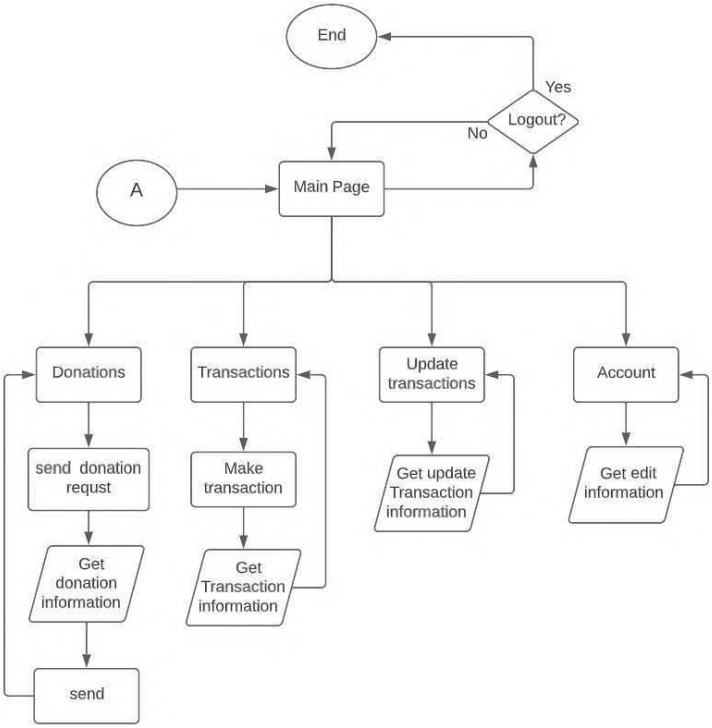


Figure 26:User Flowchart A.

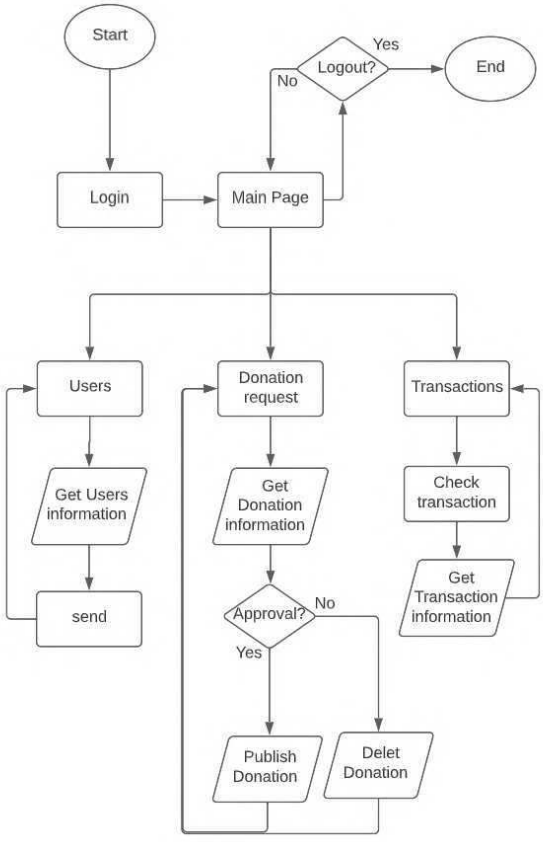


Figure 27: Admin Flowchart.

Context diagram:

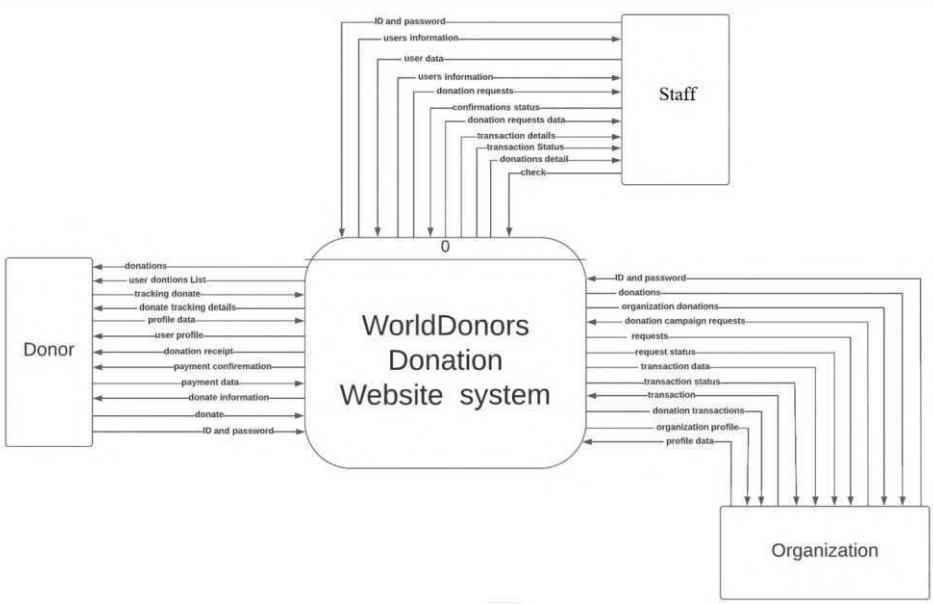


Figure 28:Context diagram.

Use case diagram:

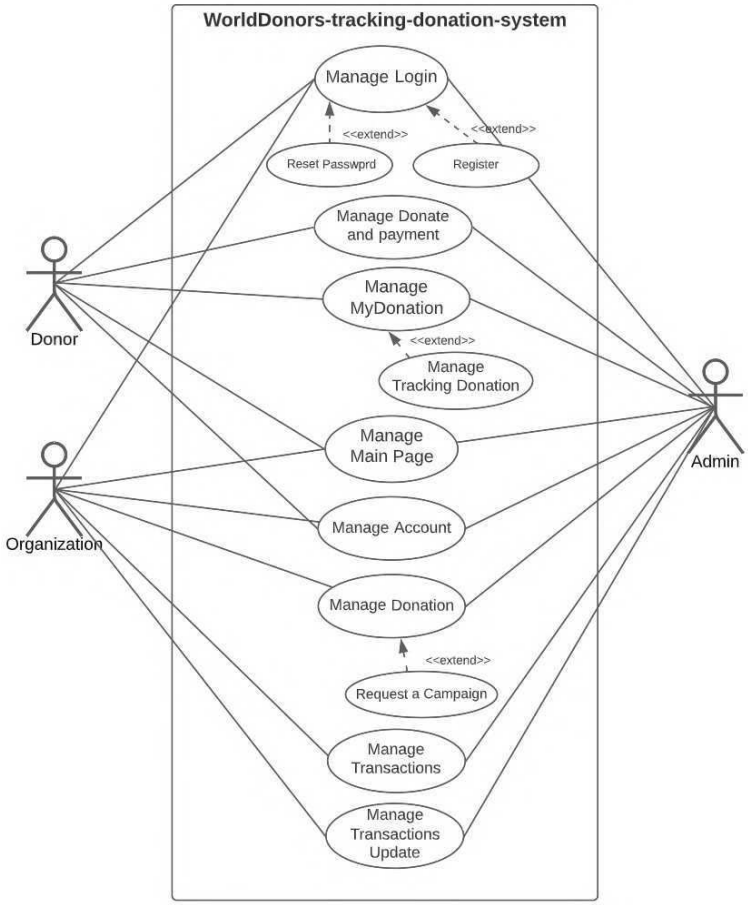


Figure 29:Use case diagram.

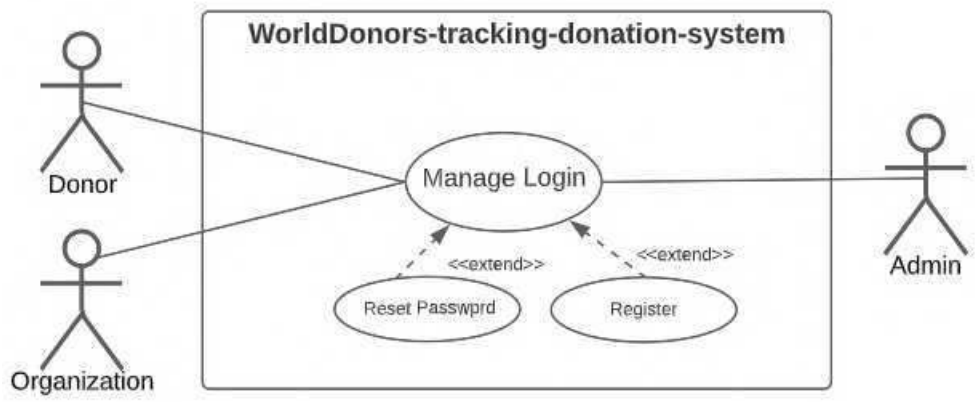


Figure 30:Use Case Diagram for Manage Login Module.

Table 7: **Manage Login** Table.

Use Case ID	UC01
Use Case	Manage Login
Brief Description	This use case describes for the users to login into the system by using registered
Actor	1.Donor 2.Orgnaization 3.Admin
Precondition	1. The user must already access the system.
Basic Flow	1. This use case starts when the user clicks on “Log In” button. 2. The system will display log in interface that require email address and password. 3. The user will enter the registered email and correct password. 4. The system will validate the enter email and password. [A1] [A2] 5. The system will start a session for the user account. 6. The system will display homepage.
Alternative Flow	A1: Sign up for new account. 1. The user clicks in “Sign Up” button.

	2. The system display signs up form that require user information. 3. The user enters all required information. 4. The system registers the new account. 5. The system save new registration data. 6. The system displays successful register message. 7. Back to basic flow step 6. A2: Forgot password. 1. The user clicks in “Forgot Password” button. 2. The system display account backup interface that requires email. 3. The user enters registered email. 4. The system validates the email. 5. The system sends the password to the email. 6. Back to basic flow step 1.
Exception Flow	
Postcondition	1. The system records the new registered account into the database.
Rules	The system only user to login with registered email and correct password.
Constraints	The system required correct input type

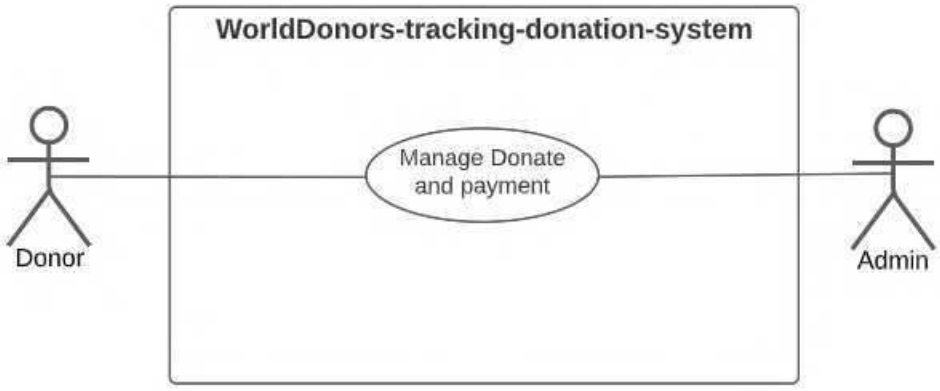


Figure 31:Use Case Diagram for Manage Donate and Payment Module.

Table 8: **Manage Donate and Payment** Table.

Use Case ID	UC02
Use Case	Manage Donate
Brief Description	This use case describes for the donor to donate for the donation in the system and for the admin to see all the details.
Actor	1.Donor 2.Admin
Precondition	1. The user must already access the system.
Basic Flow	**Donor** 1. This use case starts when the user clicks on “Donate” button. 2. The system will display all the requirement input of the donate. 3. The user will enter the requirements input. 4. The user choose “My Contact Details” mode. [A1] 5. Donor continue the process with the bank and if the donate done successfully, the system will print an receipt for the donor. 6. Donor click on “Back” button to go to donation page. 7. Use case end. **Admin** 1. This use case starts when admin enter to the users page 2. The system will display all the user information. 2.If admin clicks on “check” the system will display all the details of the user. 6. Admin click “Back “button and go back to users page. 7. Use case end.
Alternative Flow	**A1: Donor use Ghost Mode**. .1. Donor continues the process with the bank and if the donate done successfully. 2. Back to donation page

Exception Flow	
Postcondition	1. The system save all the receipts of the donation with a unique ID in the database
Rules	The system will not give any receipt and any tacking number if user donate in the Ghost mode .
Constraints	The system required correct input type

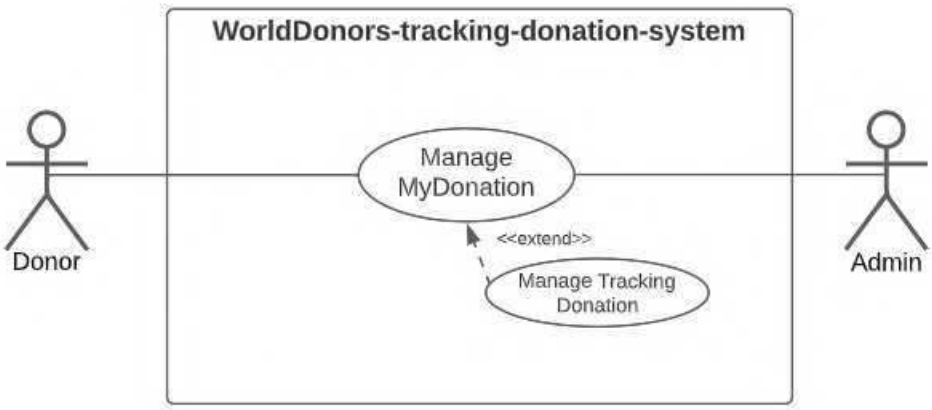


Figure 32:Use Case Diagram for Manage MyDonation Module.

Table 9: **Manage MyDonation** Table.

Use Case ID	UC03
Use Case	Manage My Donation
Brief Description	This use case describes for the donor to see all the donation had been donate to them and also to track their donation and see the information that system will display for them, Admin can see all the tracking information.
Actor	1.Donor 2.Admin
Precondition	1. The user must already access the system.
Basic Flow	**Donor** 1. This use case starts when the user clicks on “MyDonation” button.

	2. The system will display all the Donations user have. 3. The user click in the donation to see all the information. 4. The user enter the tracking number and the system will display the details. 5. Back to MyDonation page. **Admin** 1. This use case starts when admin access to the data. 2. The system will display all the tracking donation in the system.
Alternative Flow	
Exception Flow	
Postcondition	1. The system will enter the database to check for the information.
Rules	The user needs to give a valid tracking number.
Constraints	

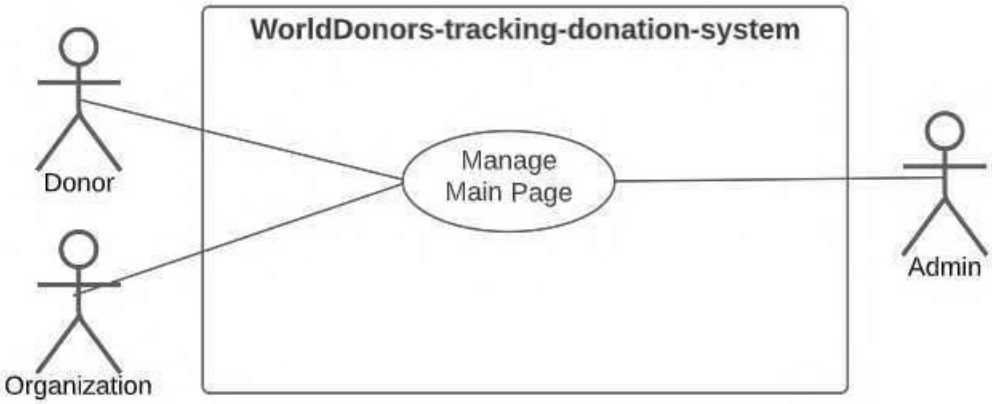


Figure 33:Use Case Diagram for Manage Main Page Module.

Table 10: **Manage Main Page** Table.

Use Case ID	UC04
Use Case	Manage Main Page
Brief Description	This use case describes for all the users in the system, the system will display all the available donation in the system and display it's information.

Actor	1.Donor 2.Admin 3.Organization
Precondition	1. The user must already access the system.
Basic Flow	1. This use case starts when the user clicks on “Main Page” button. 2. The system will display all the Donations In the system. 3. The user click in the donation to see all the information.
Alternative Flow	
Exception Flow	
Postcondition	1. The system will enter the database to check for the information.
Rules	
Constraints	

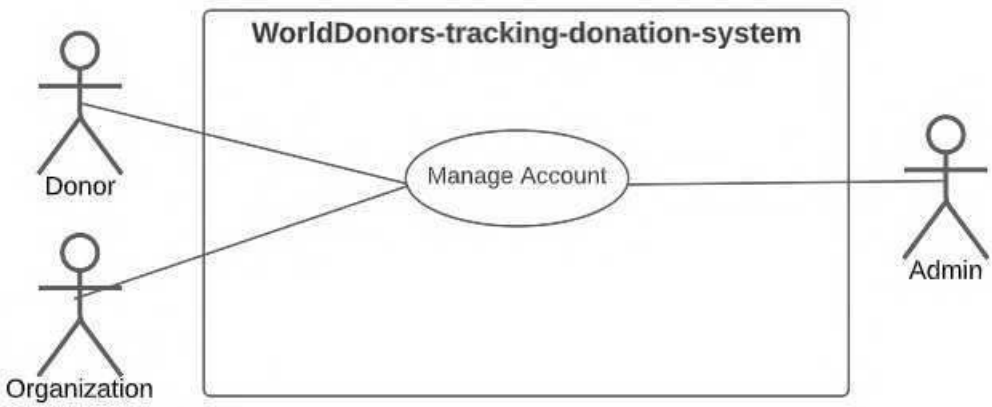


Figure 34:Use Case Diagram for Manage Account Module.

Table 11: **Manage Account** Table.

Use Case ID	UC05
Use Case	Manage Account

Brief Description	This use case describes for all the users in the system, it gives the ability to see all the user information and can edit them.
Actor	1.Donor 2.Admin 3.Organization
Precondition	1. The user must already access the system.
Basic Flow	1. This use case starts when the user clicks on “Account” button. 2. The system will display all the User information. 3. The user click “Edit” button the system will give user ability to edit the information. 4.Back to Account page.
Alternative Flow	
Exception Flow	
Postcondition	1. The system will enter the database to update the information.
Rules	Username cannot be edit for the users. The user needs to give a valid input for ever value.
Constraints	

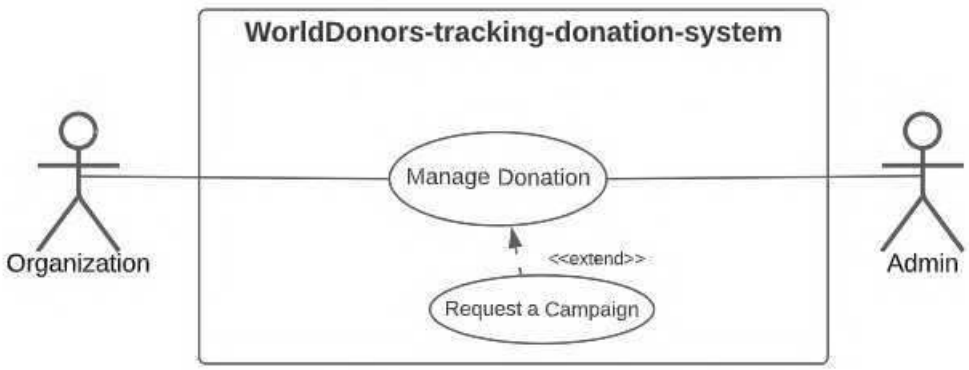


Figure 35:Use Case Diagram for Manage Donation Module.

Table 12:**Manage Donation** Table.

Use Case ID	UC06
Use Case	Manage Donation
Brief Description	This use case describes for the Admin to confirm and add the donation to the system which will be display to the doner so they can donate. Moreover, for the organization they can send a Donation publish request to the admin then wating for confirm or dismiss.
Actor	1.Admin 2.Organization
Precondition	1. The user must already login into the system.
Basic Flow	**Admin** 1. The user case start when admin click on “Donations Campaign” button. 2. The system will display all the donations requests from the organization to the admin. 3. The admin can choose any request and click on ”Check” button and the system will display all the information of the donation. 4. After checking all the requirement of the donation the admin can confirm the donation by click on “Approve” button[**A1**]. 5.The system will add the donation to the main page and notify the organization that their donation has been approved. 6.The system will update the donations request. 7.The use case end, system will go to the admin donation page. **Organization** 1. The user case start when organization click on “Start a Campaign” button in the organization Donation page. 2. The system will ask the organization to add all the requirement information of the donation. 3.The organization fills in all the information and then click on “Send Request” button. 4.The system will send the request to the admin and update the organization donation page which will add the new request to the page. 5. The use case end, system will go to the organization donation page.

Alternative Flow	**A1: Admin click "Reject" button**: 1. The admin click on "Reject" button. 2. The system will delete the donation from the database and notify the organization that their donation has been rejected.
Exception Flow	
Postcondition	1. The system records the new donation request information into database.
Rules	The organization needs to give valid input for all the information value.
Constraints	

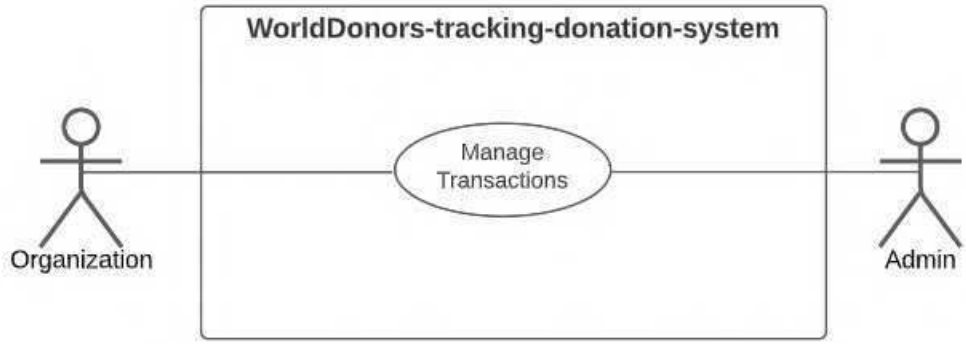


Figure 36:Use Case Diagram for Manage Transactions Module.

Table 13:**Manage Transactions** Table.

Use Case ID	UC07
Use Case	Manage Transactions
Brief Description	This use case describes the Admin checking and seeing all the withdrawal of the organization transaction and knowing if they give the proof after the expected date end or not. Moreover, the organization can withdraw an amount of the donation box money after adding all the information of the withdrawal with the expected date to give the proof required.
Actor	1.Admin 2.Organization
Precondition	1. The user must already login into the system.

	2. The organization must have a donation at least to withdraw money from it and the donation box has amount of money to use it.
Basic Flow	**Admin** 1. The user case start when admin click on “Transactions” button. 2. The system will check the database and display all the transactions sent from the organization in the system. 3. The admin can choose any request and click on ”Check” button and the system will display all the information of the transactions. 4. Admin can check all the information of the transaction and see the transaction status and if any proof had been gives or not. 5.Admin can click on “Back” button to go back to the transactions page. 5.The use case end. **Organization** 1. The user case start when organization click on “Transactions” button. 2. The system will display all the donation that the organization have. 3.The organization need to select donation and click on ”Make Transaction” button. 4.The system will check the information from the database and display them to the organization with the courant amount of the donation box. 5.The system will ask the organization to fill in all the requirement to process with the transaction.[**A1**] 6.The organization click on “Process” button to move for the bank information page.[**A2**] 7.The system will display all the bank account of the organization. 8.The organization choose one account and click on “Send” button.[**A3**] 9.The system will save all the transaction information into database. 10.The system will send the organization to the Transaction page after update the information that page has. 11.The use case end.

Alternative Flow	**A1: Organization click “Add” button**: 1. The organization click on ”Add” button to add a new line of transaction. 2.The use case end. **A2: Organization click “Back” button**: 1. The system will go back to the transactions page which display all the donation that the organization have. 2.The use case end.
Exception Flow	
Postcondition	1. The system records the new transaction information into database. 2.The transaction status will automatically be as Not proofed.
Rules	The organization needs to give valid input for all the information value. The Organization must have donation to withdrawal from it.
Constraints	

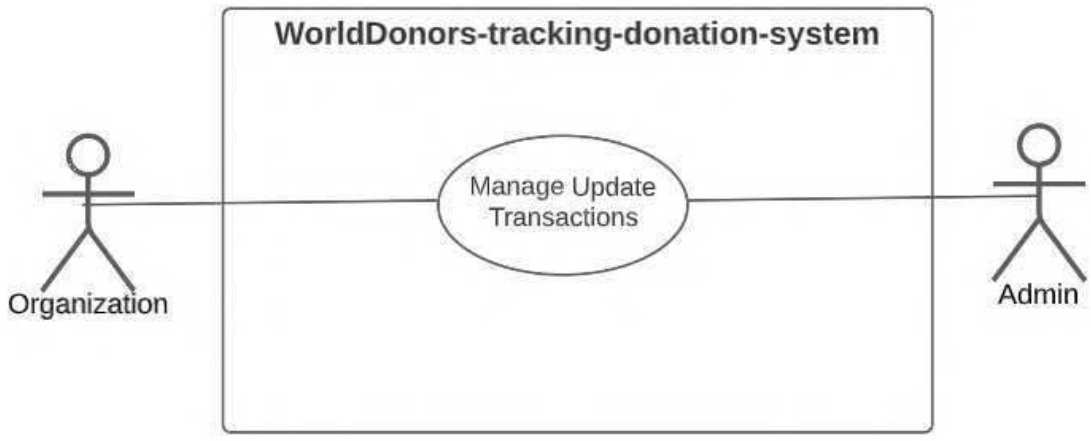


Figure 37:Use Case Diagram for Manage Update Transaction Module.

Table 14:**Manage Update Transactions** Table.

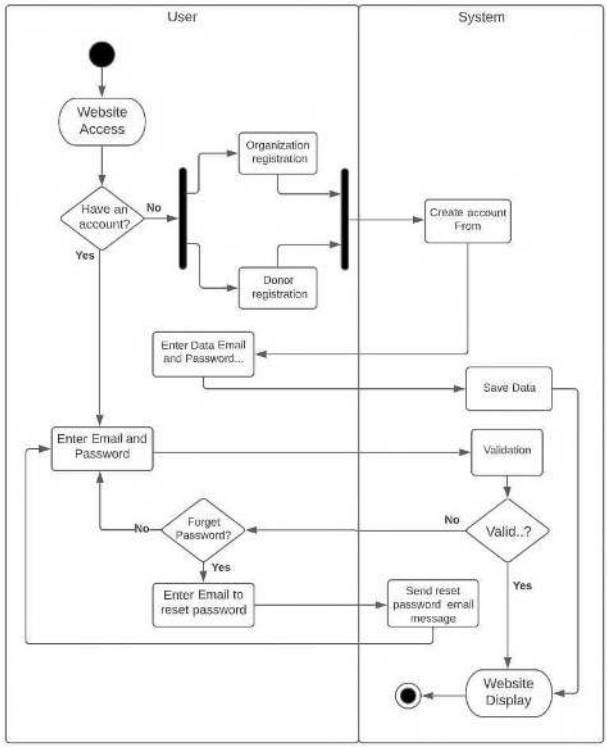
Use Case ID	UC08
Use Case	Manage Transactions

Brief Description	This use case describes the Admin checking and seeing all the proof and status of the organization withdrawals. In the organization, they can see all the withdrawals done on the transaction page and add the required information about the withdrawal.
Actor	1.Admin 2.Organization
Precondition	1. The user must already login into the system.
Basic Flow	**Admin** 1. The user case start when admin click on “Transactions” button. 2. The system will check the database and display all the transactions sent from the organization in the system. 3. The admin can choose any request and click on ”Check” button and the system will display all the information of the transactions. 4. Admin can check all the information of the transaction and see the transaction status and if any proof had been gives or not. 5.Admin can click on “Back” button to go back to the transactions page. 5.The use case end. **Organization** 1. The user case start when organization click on “Update Transactions” button. 2. The system will display all the Transactions that the organization had been done. 3. The organization clicks on the transaction to update the proofs. 4.The system will check the information from the database and display transaction details. 5.The system will ask the organization to fill in the information with the files and receipts.[**A1**] 6.The organization click on “Send” button to sand all the details. 7. The status of the transaction will update to proofed. 8.The use case end.
Alternative Flow	**A2: Organization click “Back” button**:

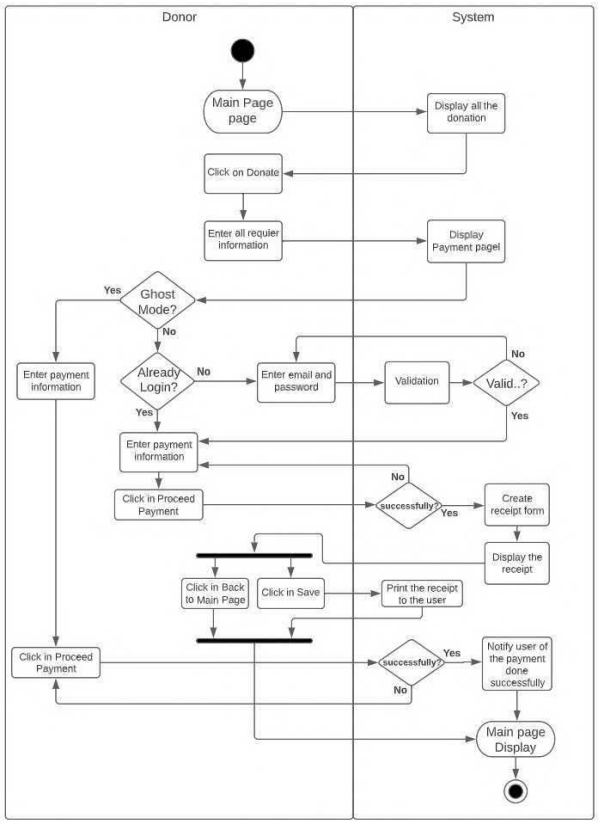
	1. The system will go back to the update transactions page which display all the transactions that the organization have. 2.The use case end.
Exception Flow	
Postcondition	1. The system records the new transaction information into database.
Rules	The organization needs to give valid input for all the information value.
Constraints	

Activity diagram:

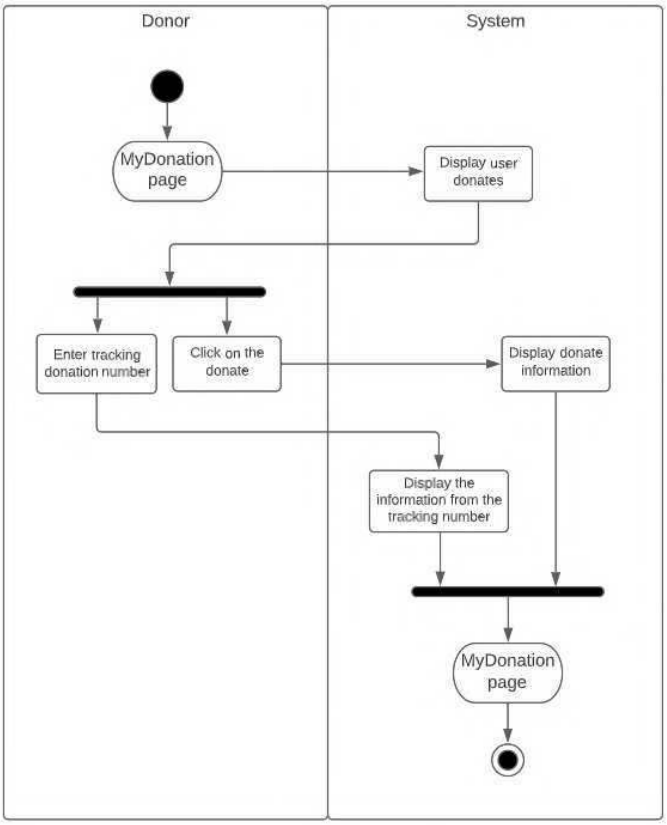
Manage Login



Manage Donate and Payment.

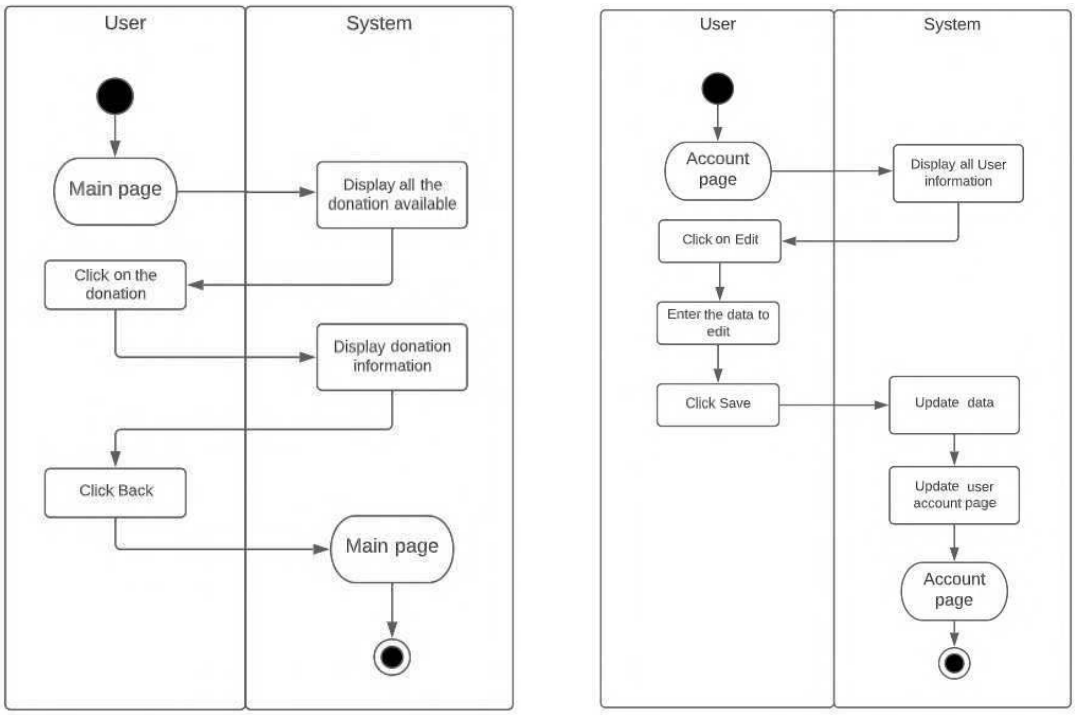


Manage MyDonation.

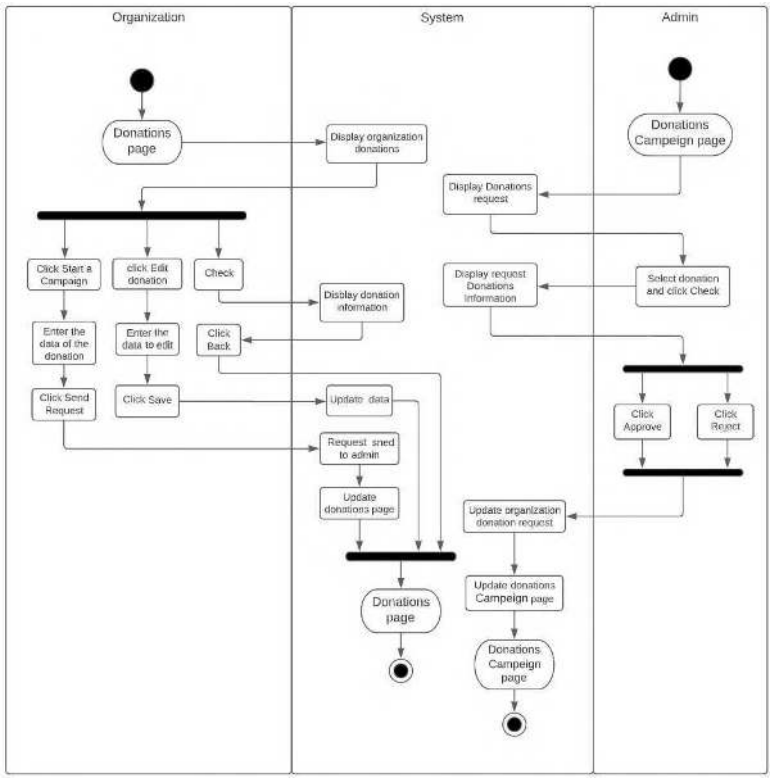


Manage Main Page.

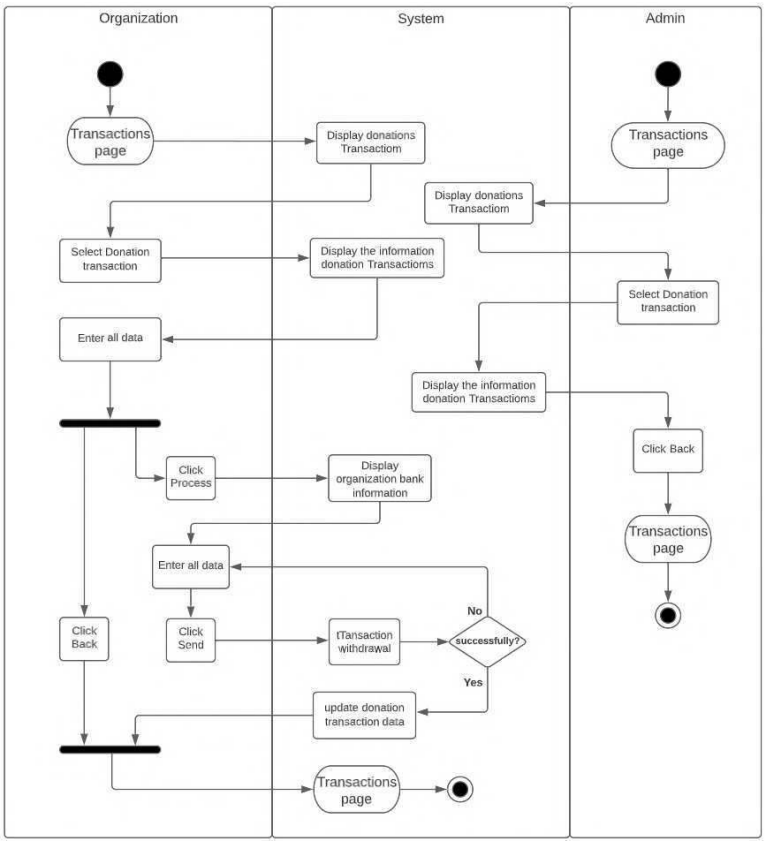
Manage Account.



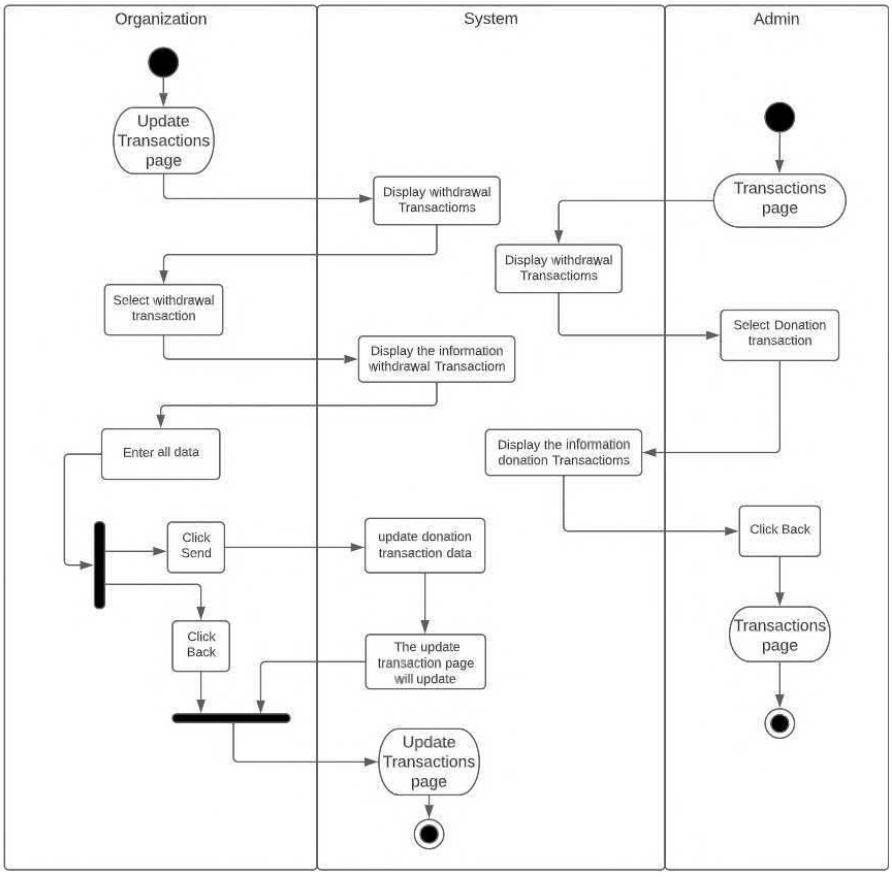
Manage Donation.



Manage Transactions.



Manage Update Transactions.



Storyboard

The storyboard of the system which have the Donor, Organization, and admin it is show the simple design of the pages for every user.

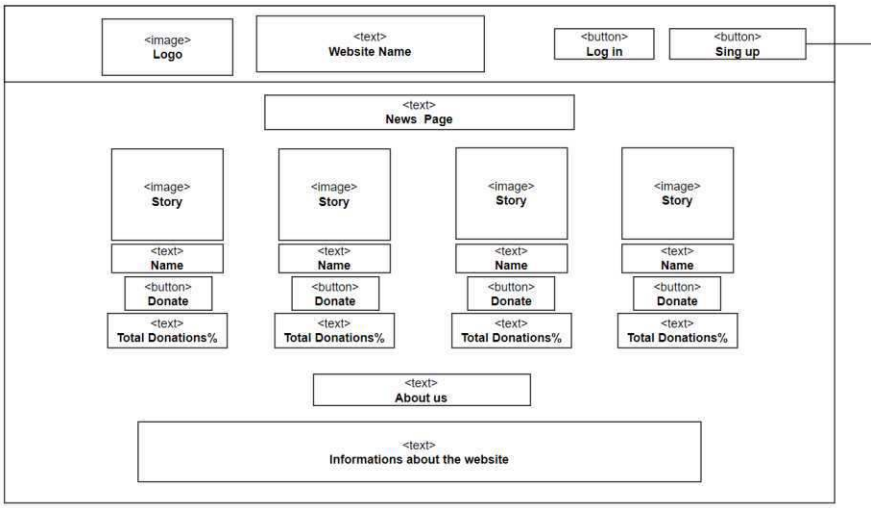


Figure 38:main page

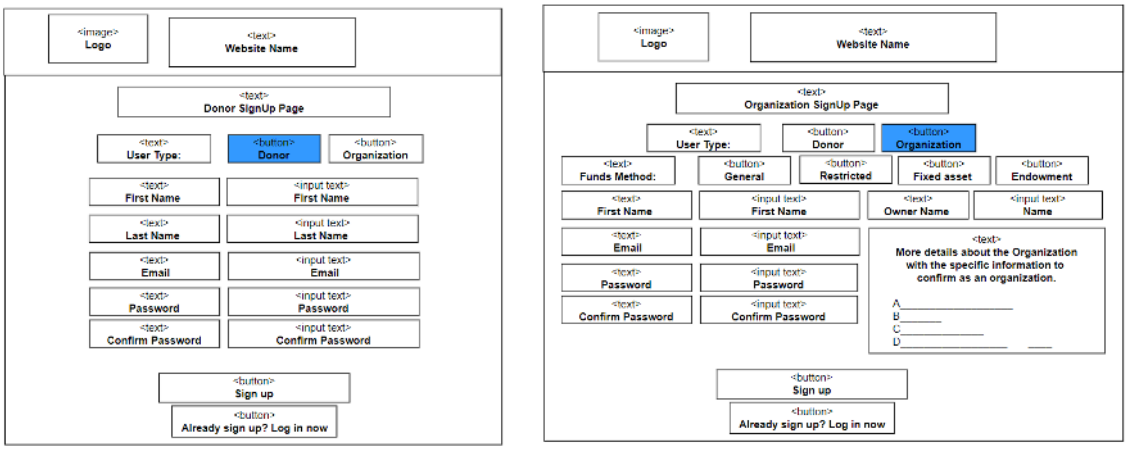


Figure 39:register page for the Donor and Organization.

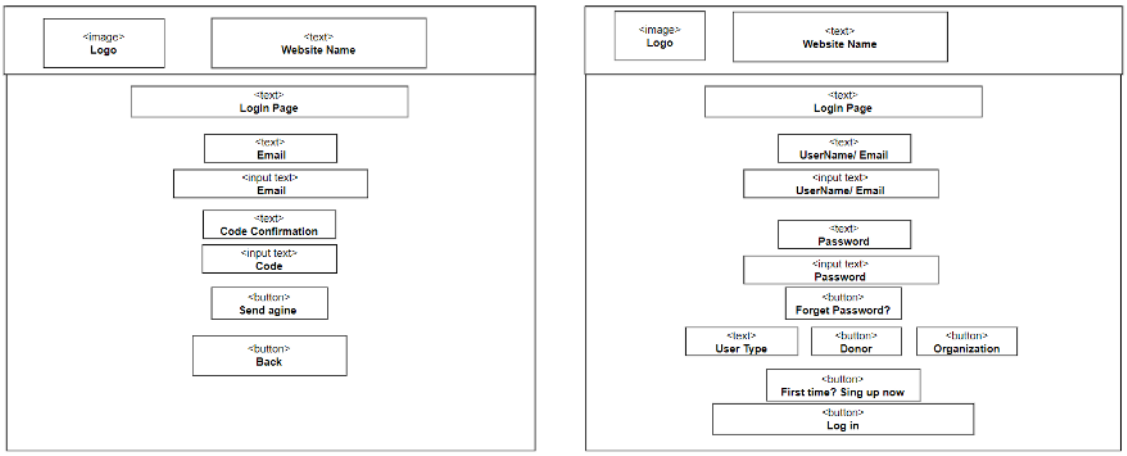


Figure 40:Login and reset password pages.

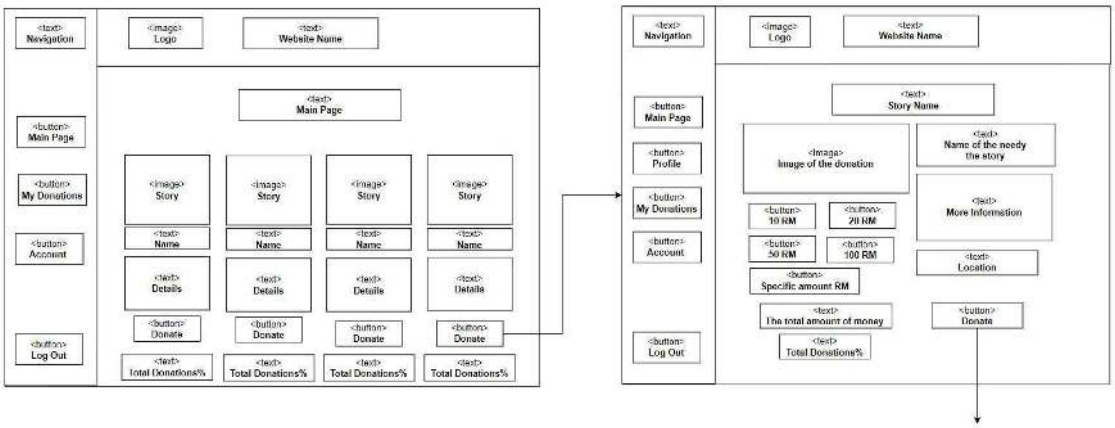


Figure 41:Donor main page and donation page.

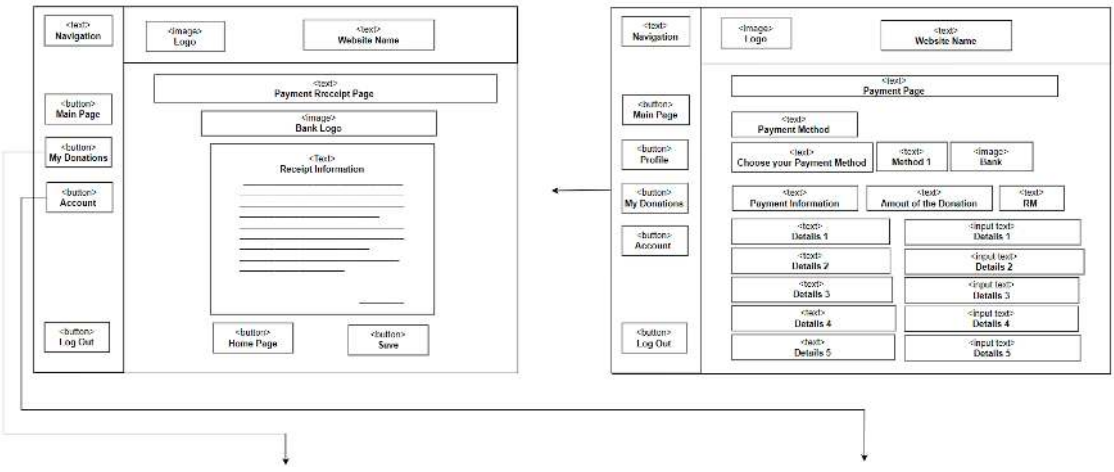


Figure 42: Payment and receipt pages.

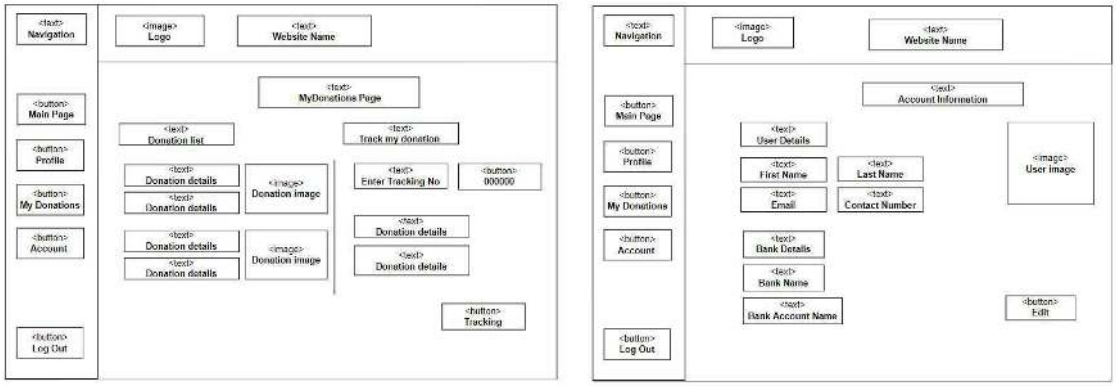


Figure 43: MyDonation and the tracking donation pages.

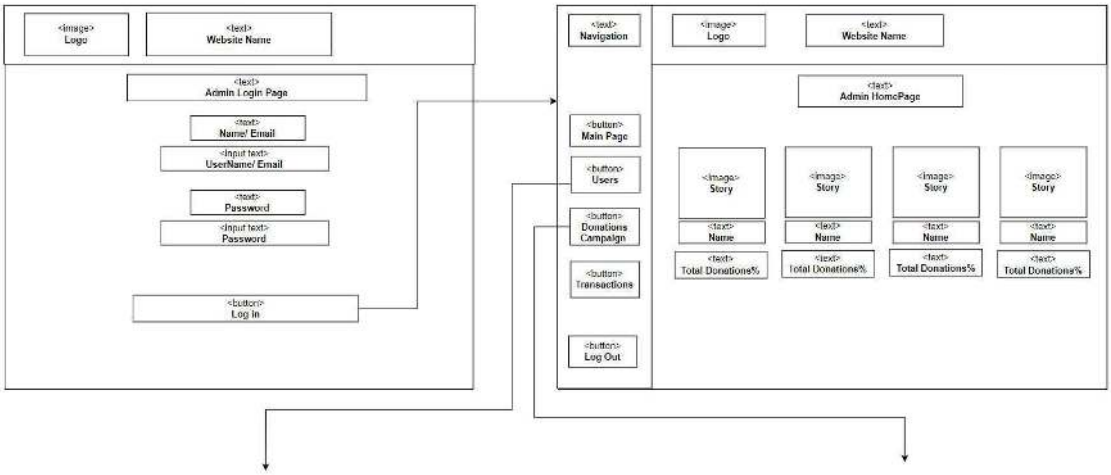


Figure 44:Admin login and main pages.

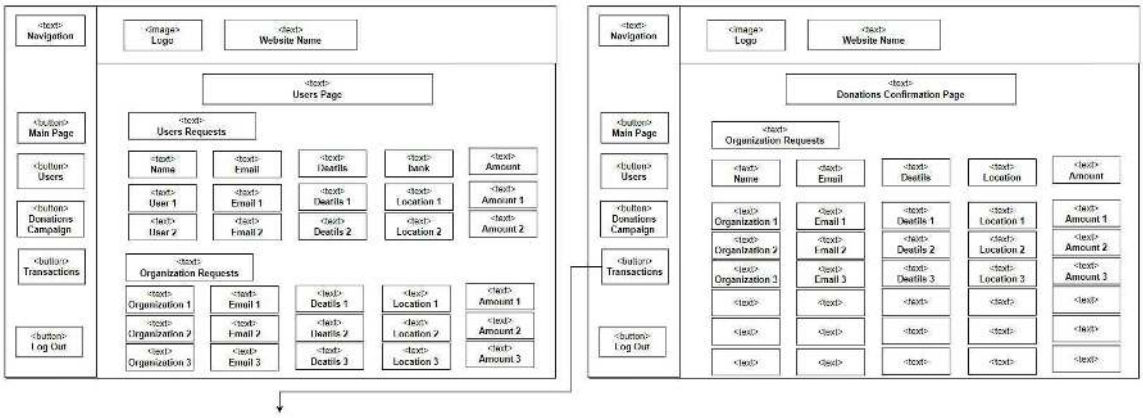


Figure 45:Admin Users and Donation requests pages.

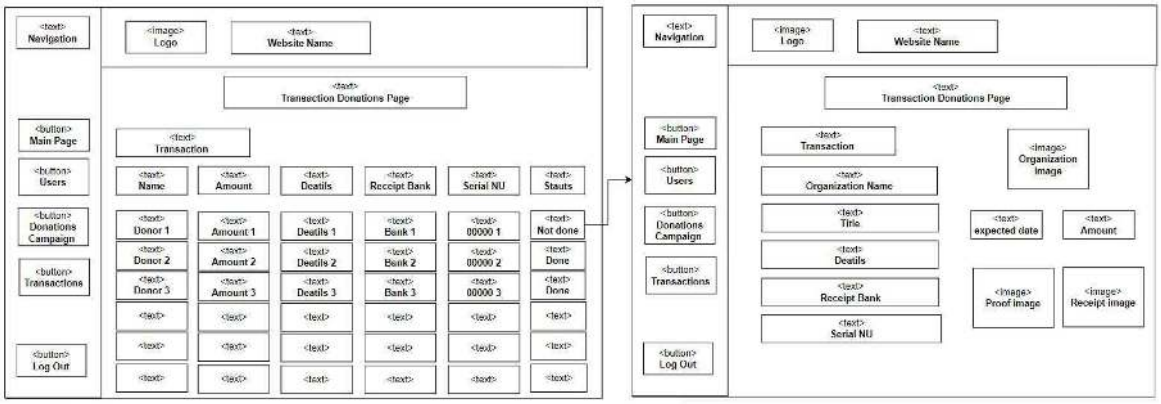


Figure 46:Admin Transaction page

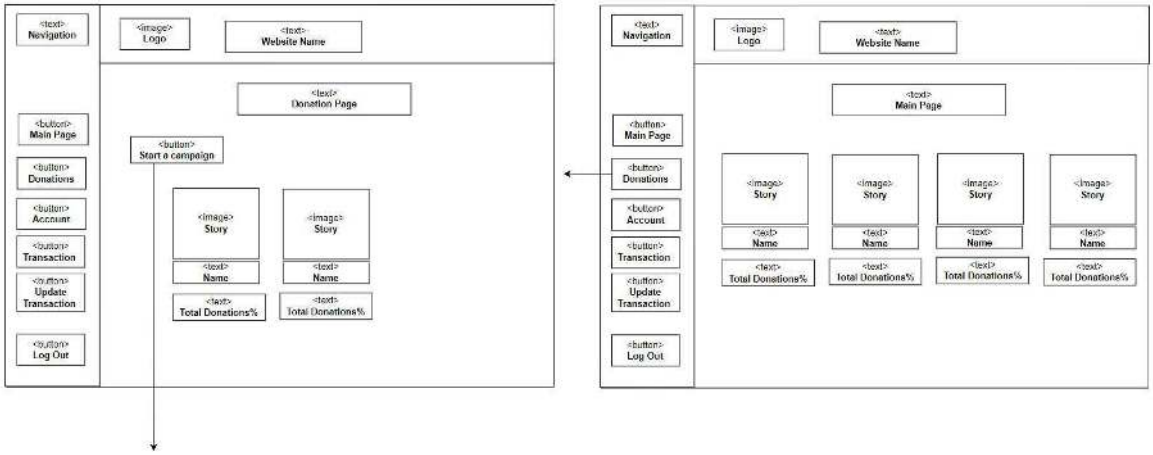


Figure 47:Organization Main and Donation pages.

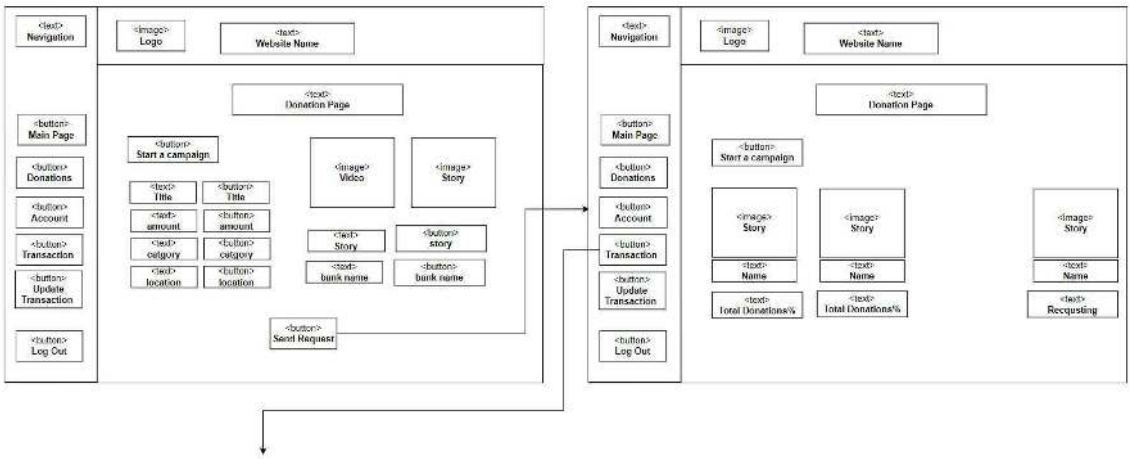


Figure 48: Organization request donation page.

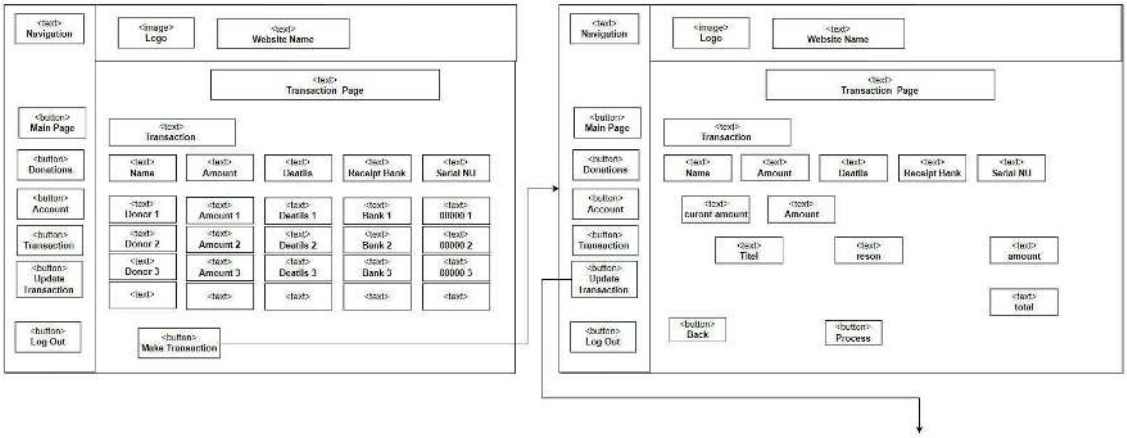


Figure 49:Organization Transaction page.

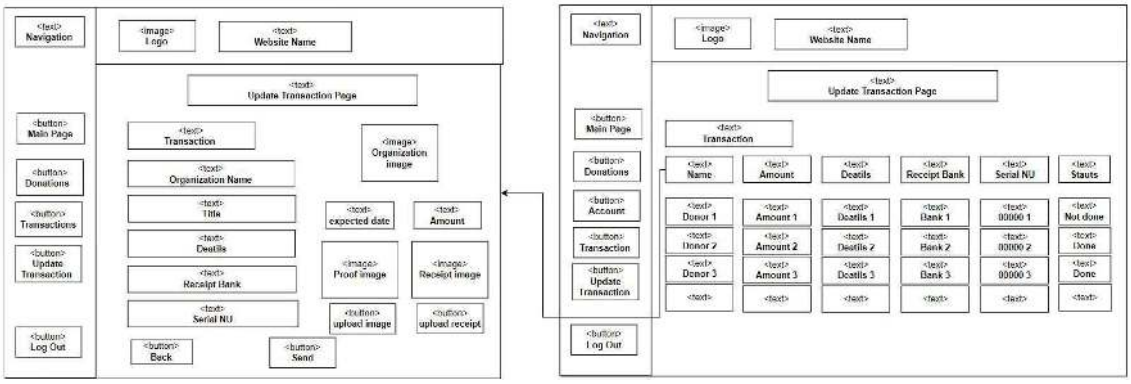


Figure 50:Organization update transaction page.

3.5 Data Design:

Entity Relationship Diagram (ERD)

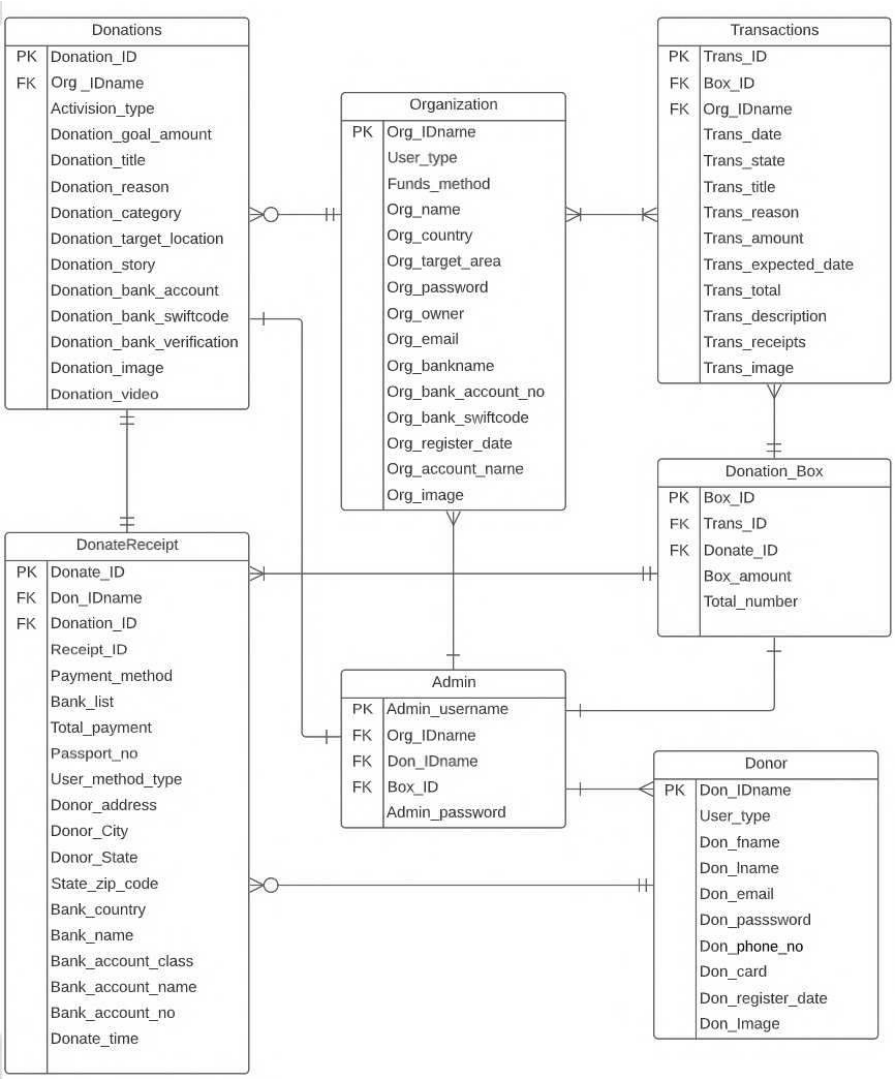


Figure 51:Entity Relationship Diagram for WordDonors.

Data Dictionary

Table 15:**Donor** data dictionary table.

Data Name	Description	Data Type	Constraint
Don_IDname	Donor identifier name	Varchar(15)	PK
User_type	User type	Varchar(15)	
Don_fname	Donor first name	Varchar(15)	
Don_lname	Donor last name	Varchar(15)	
Don_email	Donor email	Varchar(30)	

Don_passowrd	Donor password	Varchar(30)	
Don_card	Donor card	Varchar(30)	
Don_register_date	Donor registers date	Date	
Don_image	Donor profile image	Varbinary(max)	

Table 16:**Organization** data dictionary table.

Data Name	Description	Data Type	Constraint
Org_IDname	Organization identifier name	Varchar(15)	PK
User_type	User type	Varchar(15)	
Funds_method	Organization founded method used	Varchar(15)	
Org_name	Organization name	Varchar(40)	
Org_country	Organization country please	Varchar(15)	
Org_target_area	Organization donation target area	Varchar(15)	
Org_passowrd	Organization password	Varchar(40)	
Org_owner	Organization owner name	Varchar(40)	
Org_email	Organization email	Varchar(30)	
Org_bankname	Organization bank name	Varchar(30)	
Org_bank_account_no	Organization bank account number	Int	
Org_bank_swiftcode	Organization bank swift code	Varchar(15)	
Org_register_date	Organization registers date	Date	

Table 17:**Donations** data dictionary table.

Data Name	Description	Data Type	Constraint
Donation_ID	Doonation identifier number	Int	PK
Org_IDname	Organization identifier name	Varchar(15)	FK
Activision_type	Is the donation active or not	Boolean	
Donation_goal_amount	Donation goal amount	Varchar(15)	
Donation_title	Donation title	Varchar(30)	
Donation_reson	Donation reason why it needs to donate	Varchar(30)	
Donation_category	Donation category from the category list	Varchar(30)	
Donation_target_location	Donation target location that donation will go to	Date	
Donation_story	Donation story and details	Varchar(30)	
Donation_bank_account	Donation bank account	Varchar(30)	

Donation_bank_swiftcode	Donation bank swift code	Varchar(30)	
Donation_bank_verification	Donation bank verification document	Varchar(max)	
Donation_image	Donation image	Varbinary(max)	
Donation_video	Donation video	Varbinary(max)	

Table 18:**DonateReceipt** data dictionary table.

Data Name	Description	Data Type	Constraint
Donate_ID	Donate identifier number	Int	PK
Don_IDname	Donor identifier name	Varchar(15)	FK
Donation_ID	Donation identifier number	Int	FK
Receipt_ID	Receipt identifier number	int	
Payment_method	The payment method used	Varchar(15)	
Bank_list	Donor chooses from the bank list	Varchar(50)	
Total_payment	The total amount of the donate	Int	
Passport_no	Donor passport number	Varchar(30)	
User_method_type	Donor used ghost mood or login	Boolean	
Donor_address	Donor address	Varchar(50)	
Donor_city	Donor city	Varchar(30)	
Donor_state	Donor state	Varchar(30)	
State_zip_code	Donor zip code	Int	
Bank_country	Donor bank country	Varbinary(max)	
Bank_name	Bank name	Varbinary(max)	
Bank_account_class	Bank account class	Varchar(30)	
Bank_account_name	Bank account name	Varchar(30)	
Bank_account_no	Bank account number	Int	
Donate_time	The donate time and date	Date	

Table 19:**Admin** data dictionary table.

Data Name	Description	Data Type	Constraint
Admin_username	Admin name	Varchar(15)	PK
Org_IDname	Organization identifier name	Varchar(15)	FK
Don_IDname	Donor identifier name	Varchar(15)	FK
Box_ID	Box identifier number	Int	FK

Admin_password	Admin password	Varchar(30)	

Table 20:**Donation_Box** data dictionary table.

Data Name	Description	Data Type	Constraint
Box_ID	Donation box number	Int	PK
Trans_ID	Transaction identifier number	Int	FK
Donate_ID	Donation receipt identifier number	Int	FK
Box_amount	Box amount of money	Int	
Total_number	Total number of the box amount	int	

Table 21**:Donation_Receipt** data dictionary table.

Data Name	Description	Data Type	Constraint
Receipt_ID	Donation receipt identifier number	Int	PK
Donate_ID	Donate identifier number	Int	FK
Box_ID	Donation box number	Int	FK
Total_number	Total number of receipts	Int	

Table 22:**Transactions** data dictionary table.

Data Name	Description	Data Type	Constraint
Trans_ID	Transaction identifier number	Int	PK
Box_ID	Donation box number	Int	FK
Org_IDname	Organization identifier name	Varchar(15)	FK
Trans_date	Transaction date submit	Int	
Trans_state	The state of the transaction	Boolean	
Trans_title	Transaction title	Varchar(30)	
Trans_reason	Transaction reason	Varchar(50)	
Trans_amount	Transaction amount of money	Int	
Trans_expected_date	Transaction expected date to proof	Date	
Trans_total	Transaction total amount	Int	
Trans_description	Transaction description to update proof	Varchar(100)	
Trans_receipts	Transaction receipt of proof	Varbinary(max)	
Trans_image	Transaction image proof	Varbinary(max)	

The tracking can use the concept of the quarry in the data structure so we need to track the first donate as first in and it will be first out from the donation box.

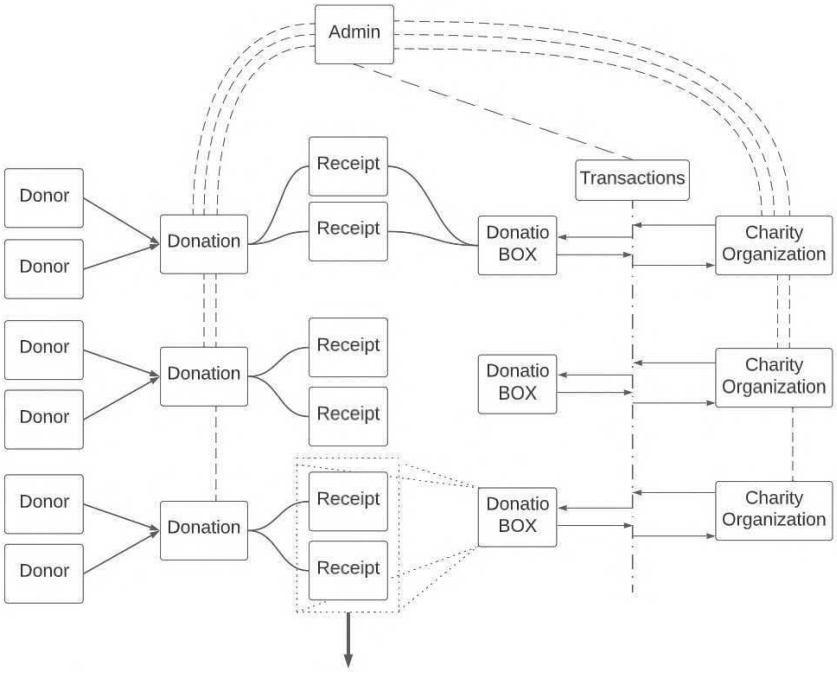


Figure 52: describe how the flow of the tracking happened in the data.

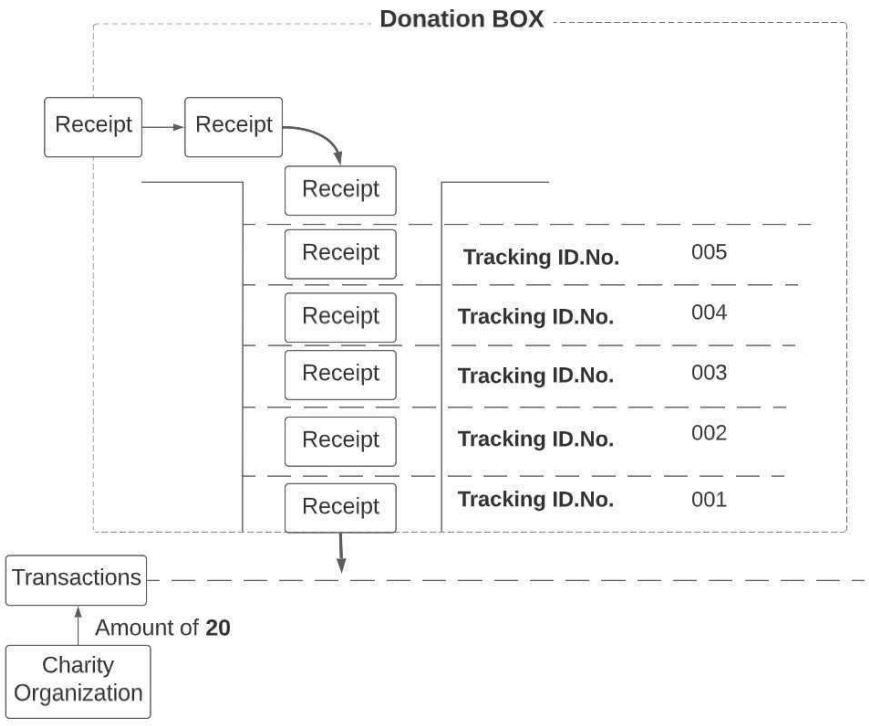


Figure 53:Donation Box.

Inside the donation box the tracking manages the donate flow, from the receipt we got from the donors after done the donation, every receipt has an Identity tracking number and every time the organization withdrawal amount of money, the system will know from which receipt this amount take and we can divide the donation box to a block, so every block will continue 10Rm for example. In the next figure the organization ask for 20Rm amount to withdrawal. The system takes the first two block from the Queue and save the tracking number with the data of the transaction so we can use it later when the donor try to track the donate.

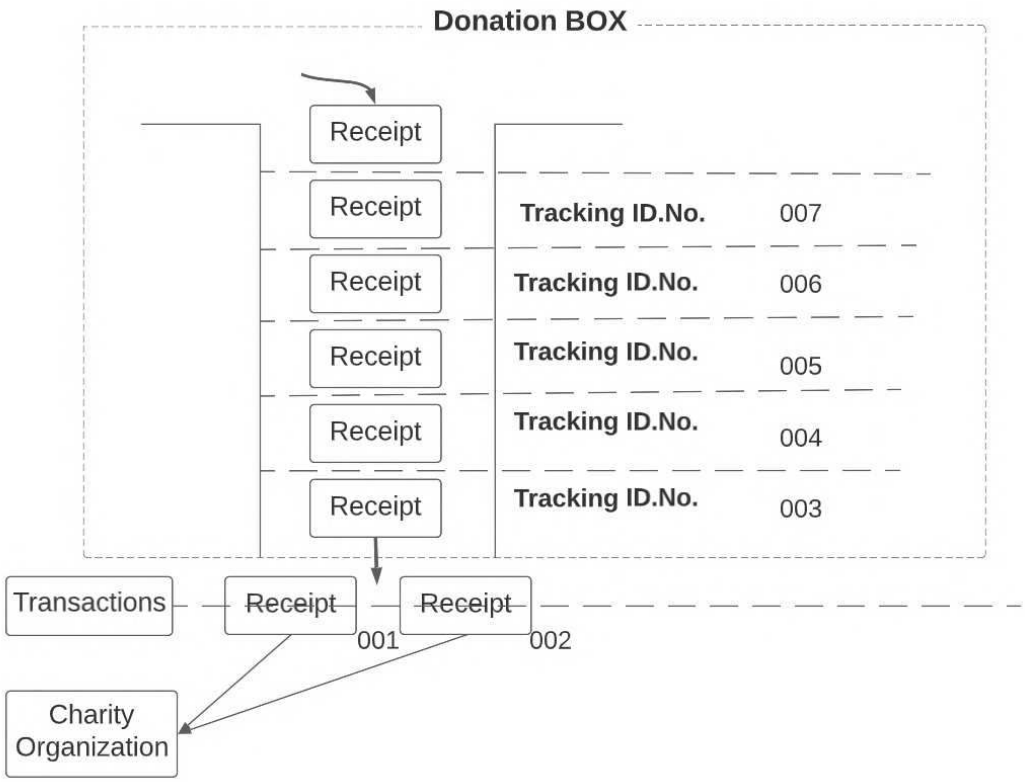


Figure 54:Donation Box after take an amount from it.

3.6 Proof of Initial Concept:

The prototype sketched by Figma which attached in Appendix. A Chapter 3.4 Proposed design which have the interface Design.

3.6.1 Prototype:

Figure 55:Login page , donor or charity organization can enter to the system from this page.

Figure 56:Donor registers page from here they can fill in their information.

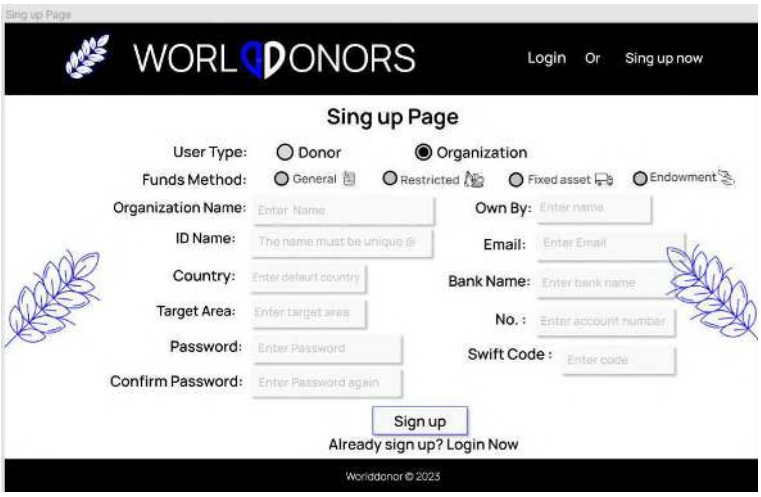


Figure 57:Charity Organization registers page from here they can fill in their information, also they can select the funs method of the organization.

Figure 58:Reset password page, if the user forgets the password can enter the email of the account and the system will send a link to reset the password shows in the next figure.

Figure 59:After the system gives the link, user can enter the new password and need to confirm it.

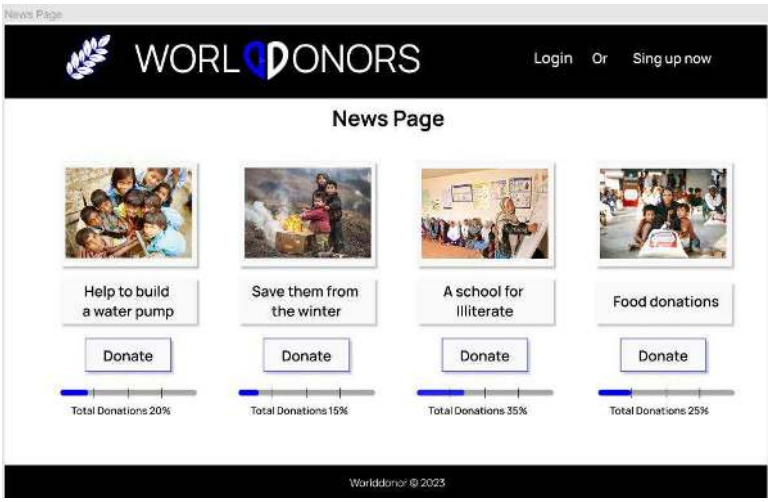


Figure 60:The main page of the WordDonors which display the active donation to the users.

Figure 61: Donor main page the main page which display the active donations.

Figure 62:This page for the user how did not login and after user click on the donation from the main page, the system will display all the details of the donation.

Figure 63:This page for the Donor who already login and if the donor clicks on the donation from the main page, the system will display all the details of the donation.

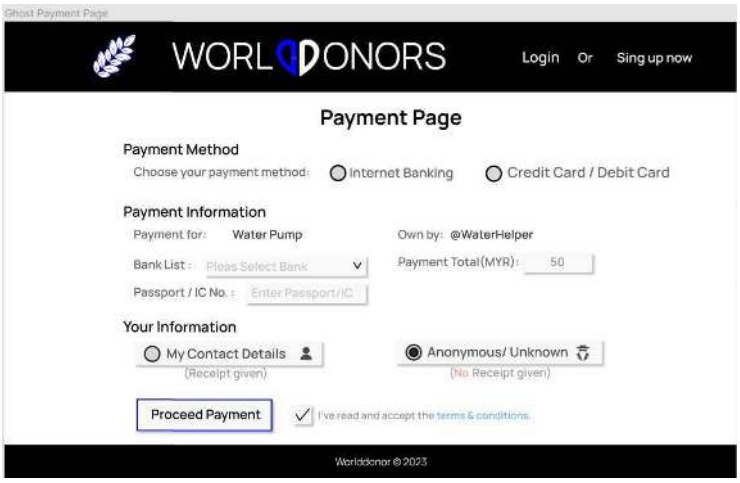


Figure 64:Page for anonymous or ghost mode, after choosing the donation and amount of donate user need to fill in the information to process the payment.

Figure 65:After filling in the donate information user need to add all the required details of the payment and then click on process payment.

Figure 66:After done the payment in the ghost mode the user will get notify from the system about the donate status if done successfully or not.

Figure 67:If the user wants to get a receipt need to login to the system.

Figure 68: Donor donates page which need to enter the information of the donate.

Figure 69:After filling in the donate information Donor need to add all the required details of the payment and then click on process payment.

Figure 70:After done the done successfully, the system will give the donor receipt which has all the information of the donate with the tracking number.

Figure 71:My Donation page, the donor can see all the donate had been done and also from this page the donor can enter the donate tracking number to see all the details about what the donor donate use for.

Figure 72:Example of using tracking number to check the details, the system gives no details because the donate amount still in the donation box.

Figure 73:another example of using the tracking number to check the details in the system gives all the details of what the donated amount used for.

Figure 74:If the user wants to see the image of what the amount is used for can click on the image button.

Figure 75:Donor Account page and from here the user can edit the account information.

Figure 76:Charity organization main page.

Figure 77:Charity organization donations page.

From here they can check all the donations they own and they can start a new donation by clicking on the Start donation campaign.

Figure 78:Charity organization donations page and the page to send the donation request to admin.

Figure 79:Donations page After send the donation request.

Figure 80:Charity organization Transaction page.

From this page, they can see the donations and need to click on the donation if they want to do any withdrawal transaction.

Figure 81:Organization Transaction withdrawal information page.

From this page, they can fill in all the details like title, amount, and expected date (to give the proof), for the withdrawal which needs to confirm later in the updated transaction page.

Figure 82:Organization bank accounts.

After entering all the information needed, they can choose the account, which the amount will send to.

Figure 83:Organization Transaction withdrawal information page after the withdrawal.

Figure 84:Organization Update Transaction page which displays all the transaction withdrawal information and its status.

Figure 85:After clicking on the transaction they want to update, they can enter the proofs and click on send to update it.

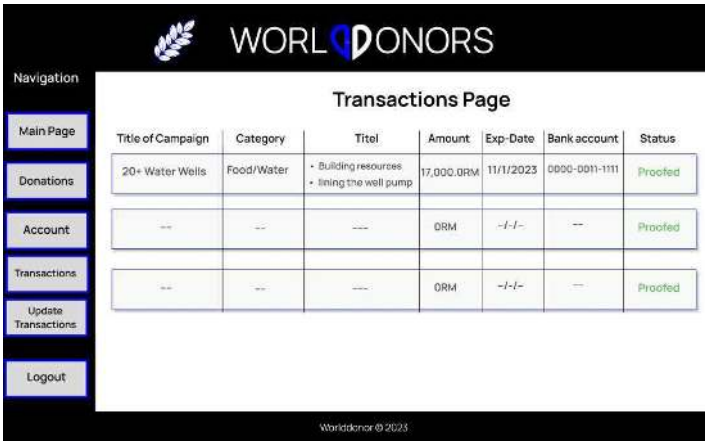


Figure 86:Update transaction page after done the update.

Figure 87: Admin Login page.

Figure 88: Admin main page.

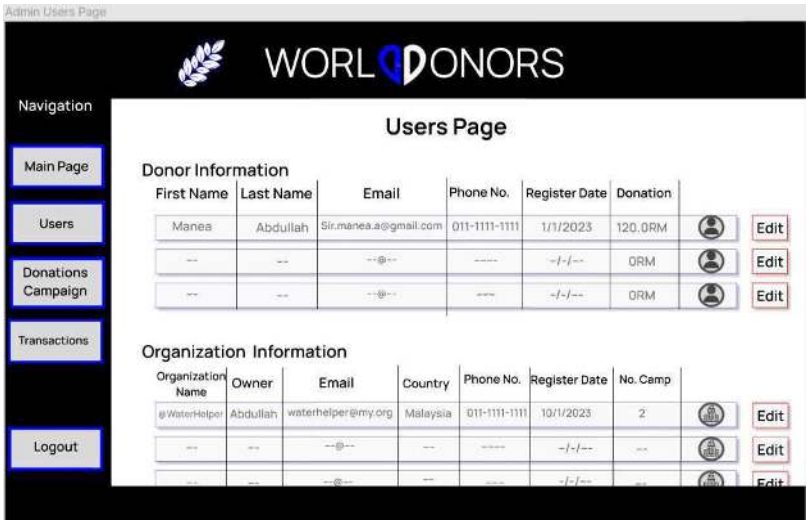


Figure 89:Admin Users page, allowed the admin to check and edit the user data.

Figure 90:Admin Donations request page.

From this page, the admin can click on the donation to check the information and if it follows the requirement then can approve it or it is rejected as shown in the next figure.

Figure 91:Admin request donations confirmation page.

Figure 92:Admin Donations request page after update.

Figure 93:Admin Transaction page, display all the transactions from the organization.

Figure 94:Admin Transaction page after clicking on not proofed transaction.

Figure 95:Admin Transaction page after clicking on Proofed transaction with the image and receipts.

3.7 Testing Plan/Validation Plan:

A testing plan/validation plan for the WorldDonors donations website would involve several stages of testing to ensure that the website functions correctly and meets all requirements. The testing plan can include the following steps:

- Unit testing: This is the first stage of testing, and it involves testing individual units of code to ensure that they are working correctly.
- Integration testing: After unit testing, the next stage is to test how the individual units work together. This will help identify any issues that may arise when integrating different parts of the system.
- Functional testing: This stage involves testing the website's functionality to ensure that it meets all the requirements, and that the user experience is optimal.
- Performance testing: This stage will test the website's performance under different loads and conditions to ensure that it can handle high traffic and large numbers of donations.
- Security testing: This will check the website's security to ensure that it is protected against any potential threats.
- User acceptance testing: This will involve testing the website with a group of end users to ensure that it is easy to use and meets their needs.
- Deployment and maintenance testing: This testing checks the website's ability to function well after deployment and maintenance.

After the testing is done and the website is deployed, it is important to continuously monitor and maintain the website to ensure that it continues to function correctly.

3.8 Potential of Use Proposed Solution:

This system can help to keep track the organizations and who has donated, how much they have donated, and where the donations are going. These systems can also provide transparency and accountability for donors, as they can see exactly where their money is being used. Moreover, with the tools for reporting and data analysis , which are so useful for measuring the impact of a project and identifying areas for improvement. Overall, using a tracking donation system can help organizations streamline their donation tracking process and improve the overall efficiency and effectiveness of their project.

3.9 Gantt chart:

The Gantt Chart sketched by Excel which attached in Appendix. A.

CHAPTER 4

IMPLEMENTATION, RESULTS AND DISCUSSION

This chapter discusses the development, implementation, and testing of this project. It includes the steps used to complete the system, the method utilized, user interfaces, as well as results and discussions.

4.1 Introduction

The WorldDonor website is being developed as a platform for connecting potential donors with organizations that provide aid to those in need. The website is built using the latest web development technologies, including HTML, CSS, JavaScript, and PHP, to ensure a modern and user-friendly experience.

The core functionality includes a registration and login system that allows donors to create accounts and access their profiles. The website's backend is powered by a SQL database that stores all user information securely and ensures fast retrieval of data when required.

Moreover, the website aims to provide a simple and secure platform for donors to make a difference in the world by connecting them with trusted organizations that are making a positive impact in society. The website's development process involves rigorous testing and quality assurance to ensure a bug-free and reliable experience for all users.

4.2 Development Tools

XAMPP:	To test websites or systems before releasing them to the main server.
phpMyAdmin:	To store data for the system.
Visual Studio Code:	To write codes and scripting.
Whimsical:	To track the development process.

4.3 Implementation

This section explains and describes the steps required for how the WorldDonors web application was developed.

4.3.1 WORLDDONOR web application

The website was developed using Visual studio which supported HTML, CSS, JavaScript, and PHP programming languages. The development process began with the planning phase, where the goals and requirements of the website were identified like safe login, logout, and registration.

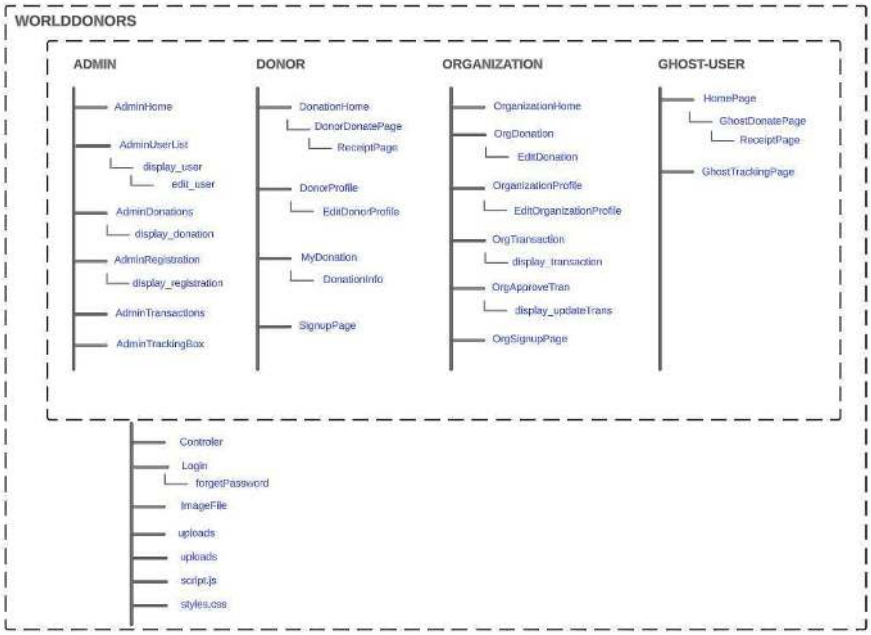


Figure 96 The pages flow and files.

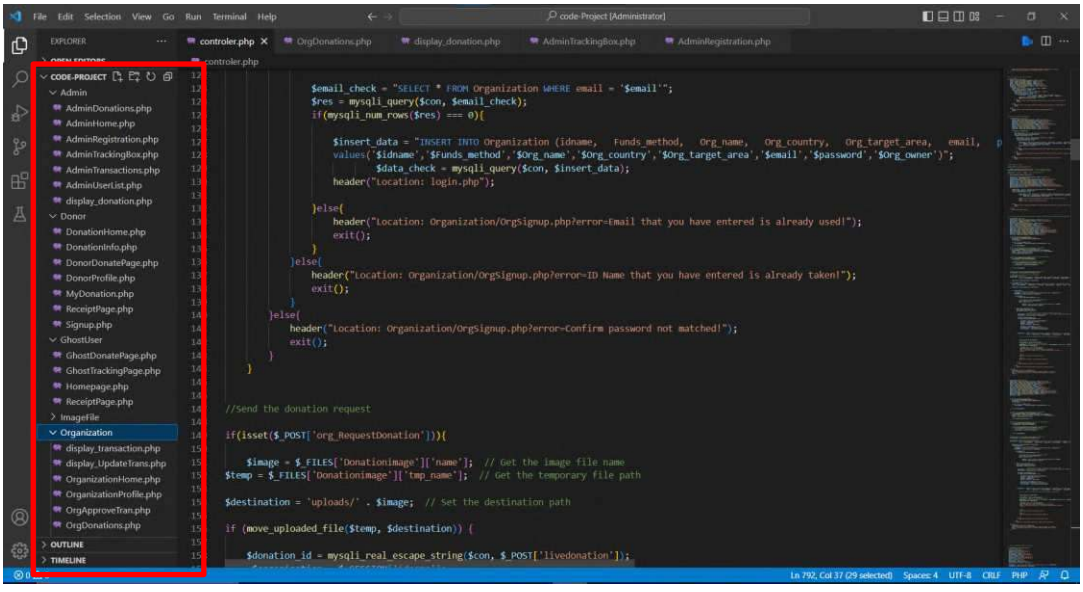


Figure 97 General idea about the code files for the system

The login process on the WorldDonor website is a crucial aspect of ensuring the security of user accounts. The login page is designed to validate user input and authenticate user credentials against those stored in the website's database. When a user enters their username and password, the website uses PHP code to sanitize and validate the input data to prevent any malicious attempts to access user accounts. If the input data is validated, the website retrieves the corresponding user information from the database and compares the password hash with the entered password to authenticate the user's credentials. Once authenticated, the user is granted access to the site's functionality and a new session is created for them. If the user fails to provide valid credentials, the login process will deny them access and prompt them to try again or seek assistance. The login process is a critical aspect of maintaining user account security and ensuring the integrity of the WorldDonor website.

4.3.2 Login and Registration

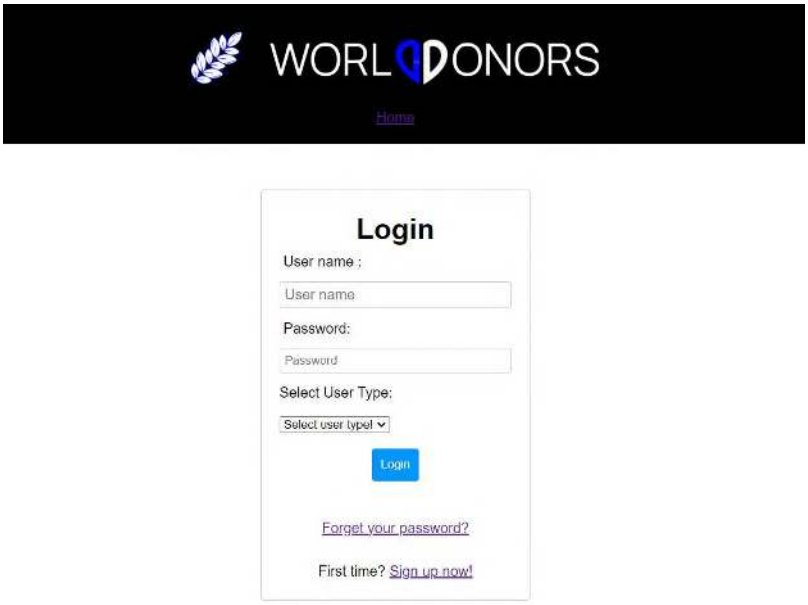


Figure 98 Login page for WorldDonors website

To log in to the system user needs to input Username, password and select the user type rather than the system will ask the user to enter again.

Figure 99 The system requires user to enter the data before click on Login.

Users need to select the type if it is a Donor, Organization, or Admin so each one of them have a different section with different pages. From this value the system can know which database must be checked as every user has a different table in the database.

Figure 100 User select type at the Login page.

If the user attempts to enter any wrong value, the system will notify an error message with red color to notify the user that he enters a wrong value.

And if it is the first time, the user needs to sign up to the system and this can be done by clicking on Sign Up Now which will send the user to the registration page.

Also, if the user forgets the password, the user can click on the forget password button which will ask the user to enter the email of the account and the system will send a confirmation code via email then the user can get its password.

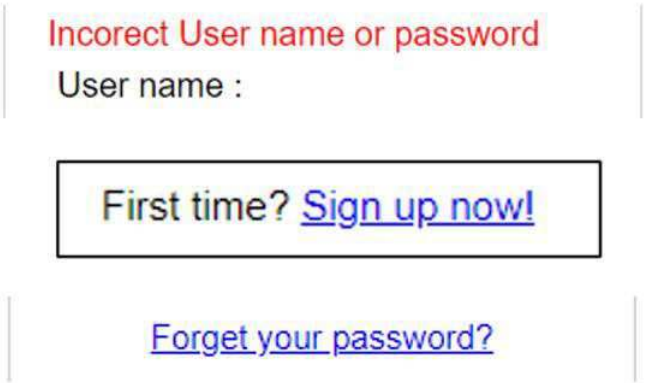


Figure 101 Notification of the login , the Sign-up and forget password links.

login.php

```
<link rel="stylesheet" type="text/css" href="styles.css">
<table >
  <th>
<div class="logo" ><img src="Logo.png" alt="Logo" width="50%" height="50%" ></div>
  </th>
  <th> Login </th>
  <th> Signup Now </th>
</table>
</head>
<body>
  <div class="login-box">
    <h1>Login</h1>
    <form method="post" action="controler.php">

      <?php if(isset($_GET['error'])) { ?>
          <p class="error" style="color: red !important;"> <?php echo $_GET['error']; ?></p>
      <?php } ?>

      <label > User name :</label>
      <input type="text" id="idname" name="idname" placeholder="User name" required >
      <label > Password:</label>
      <input type="password" id="password" name="password" placeholder="Password" required><br>

       <label>Select User Type:</label>
       <Select  name="level" required>
          <option value="">Select user type!</option>
          <option value="Donor">Donor</option>
          <option value="Organization">Organization</option>
          <option value="admin">Admin</option>
       </select>
       <div class="div-btn-login">
       <button  type="submit">Login</button>
       </div>
    </form><br>
      <p><a href="forgetPassword.html">Forget your password? </a></p><br>
    <p>First time? <a href="signup.php">Sign up now!</a></p>
  </div>
```

Figure 102 Login Page source code.

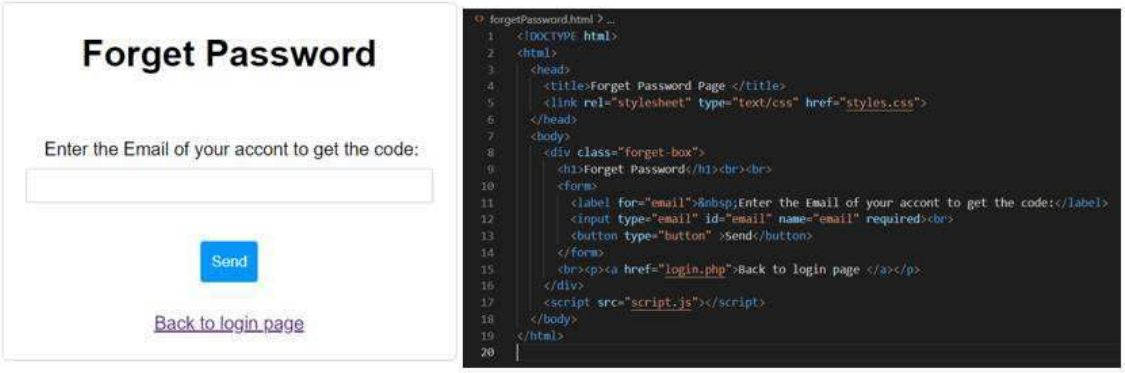


Figure 103 Forget Password page with the source code.

The WorldDonors web application allows two types of users to register and log in: Donors and Organizations. Donors are individuals who wish to donate to various causes, while Organizations are entities that seek donations for specific causes. When a new user registers, they must select their user type and provide all necessary information such as name, email, password, and phone number. Once registered, they can log in to the website and access their account.

- Donors can browse through the available causes and donate money to the causes they support. They can also view their donation history and update their personal information.

- Organizations, on the other hand, can create campaigns for their causes and accept donations from Donors. They can also view the donation history for their campaigns and manage their account information.

Additionally, both need different data, the user can click on the "radio" the small circle with blue color to select the user type and if user click to the other option the system will display the required data.

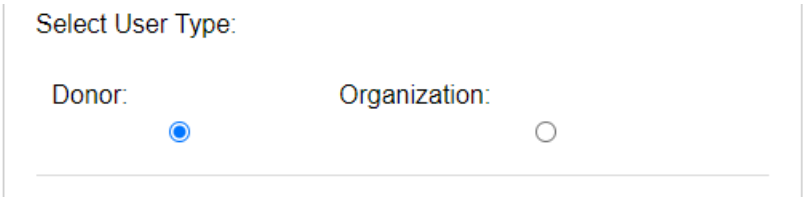


Figure 104 The switch function of the page for the type of user.

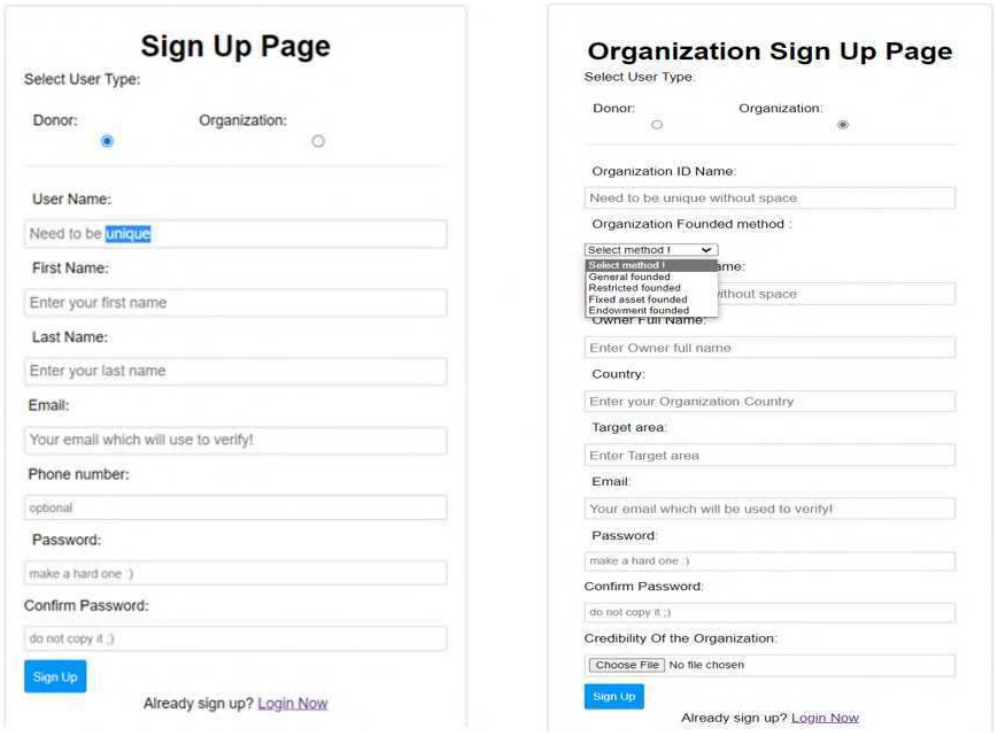


Figure 105 Sing-up pages for both users Donor and Organization.

For the Donor user, he must enter username which must be unique then the first and last name, after that the email and password. For the Organization they also need a unique name then the owner's name with the found method they will provide, after that they need to send any approve file which confirm the credibility of the organization which will be check from the admin of the website then if they confirm the request, the organization will be a part of the WorldDonors system. The users must know if the

username already existed or not and that can be done with the notify message at the top of the page which shows if the username exists or not.

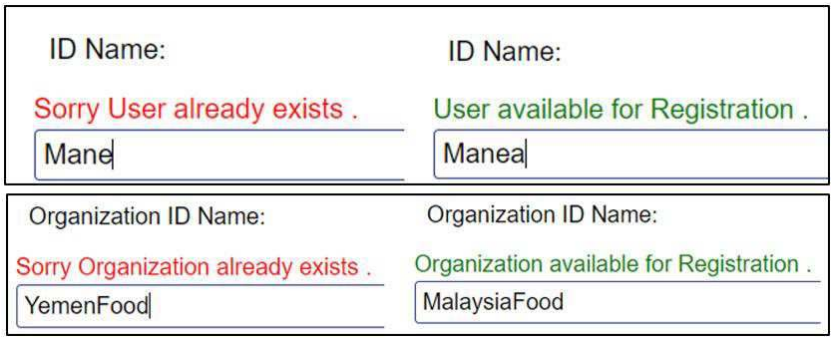


Figure 106 Username notify message.

```
Donor > Signup.php
19
20          <td>Donor:          <input type="radio"  name="type" value="Donor"        checked=true></td>
21          <td> Organization: <input type="radio"   onclick='functionCalled()'></td>
22          <script>
23          function functionCalled() {
24            window.location = "../Organization/OrgSignup.php"; // to redirect to Organization signup page
25          }
26        </script>
27
28      </table><br>
29
30      <?php if(isset($_GET['error'])) { ?>
31            <p class="error" style="color: red !important;"> <?php echo $_GET['error']; ?></p>
32        <?php } ?>
33
34
35          <label for="liveidname">  ID Name:</label>
36        <span id="live-check-username"></span>
37          <input type="text" id="liveidname" name="liveidname" placeholder="Enter ID name" required  oninput="LivecheckUsername()"/>
38
39
40          <label for="Fname">  First Name:</label>
41          <input type="text" id="Fname" name="Fname" placeholder="Enter your first name" required  >
42          <label for="Lname">  Last Name:</label>
43          <input type="text" id="Lname" name="Lname" placeholder="Enter your last name"  required >
44          <label for="email"> Email:</label>
45          <input type="email" id="email" name="email" placeholder="Your email which will use to verify! " required  >
46          <label for="password">  Password:</label>
47          <input type="password" id="password" name="password" placeholder="make a hard one :)" required  >
48          <label for="confirm-password">Confirm Password:</label>
49          <input type="password" id="cpassword" name="cpassword" placeholder="do not copy it ;)"  required  > <br>
50
51
52          <button type="submit" id="don_signup" name="don_signup" value="don_Signup">Sign Up</button>
53
54        </form>
55        <p>Already sign up? <a href="../login.php">Login Now</a></p><br>
```

Figure 107 Donor Signup page source code.

Organization > OrgSignup.php

```
            <label for="Org_owner">  Owner Full Name:</label>
            <input type="text" id="Org_owner" name="Org_owner" placeholder="Enter Owner full name" required>

            <label for="Org_country">  Country:</label>
            <input type="text" id="Org_country" name="Org_country" placeholder="Enter your Organization Country" required>

            <label for="Org_target_area">  Target area:</label>
            <input type="text" id="Org_target_area" name="Org_target_area" placeholder="Enter Target area" required>

            <label for="Org_email">  Email:</label>
            <input type="email" id="Org_email" name="Org_email" placeholder="Your email which will be used to verify!" required>

            <label for="Org_password">  Password:</label>
            <input type="password" id="password" name="password" placeholder="make a hard one :)" required>

            <label for="cpassword">Confirm Password:</label>
            <input type="password" id="cpassword" name="cpassword" placeholder="do not copy it ;)" required><br>

            <label for="ConfirmFile">Credibility Of the Organization:</label>
            <input type="file" name="ConfirmFile" id="ConfirmFile" required><br>

            <button type="submit" id="org_Signup" name="org_Signup" value="org_Signup">Sign Up</button>

        </form>
        <p>Already sign up? <a href="../login.php">Login Now</a></p><br>
    </div>
    <script src="script.js"></script>


    <script>

function orgLivecheckUsername() {
  const oliveidname = document.getElementById("oliveidname").value;
  if (oliveidname) {
    fetch('../controler.php', {
      method: 'POST',
```

Figure 108 Donor Organization Signup page source code

4.3.3 Donor pages

The home page of WorldDonors web application provides users with access to various features, such as making donations, viewing their donation history, and updating their profile information. It also displays the current donation statistics and encourages users to contribute to the cause.

In the Main page the Donor can see all the available donation to donate, moreover the Donor can search for a donation from the search box by entering the donation id name or organization name then the system will check the data and display the same and similar results.

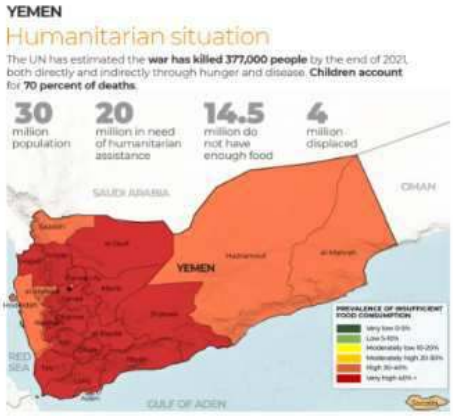
Figure 109 Main page for the Donor user.

```php
Donor > DonationHome.php
$con = mysqli_connect($host, $username, $password, $database);
if (mysqli_connect_errno()) {
  echo "Failed to connect to MySQL: " . mysqli_connect_error();
  exit();
}

if (isset($_POST['search'])) {
  $searchKeyword = $_POST['searchKeyword'];
  $donationQuery = "SELECT * FROM donations WHERE Activision_type = 'Confirm'
                    AND (Donation_title LIKE '%$searchKeyword%' OR donation_id LIKE '%$searchKeyword%')";
} else {
  $donationQuery = "SELECT * FROM donations WHERE Activision_type = 'Confirm'";
}

$donationResult = mysqli_query($con, $donationQuery);

if (mysqli_num_rows($donationResult) > 0) {
  while ($row = mysqli_fetch_assoc($donationResult)) {
    ?>
    <section class="donation">
    <h2>ID: <?php echo $row['donation_id']; ?></h2>
    <img src="../uploads/<?php echo $row['image']; ?>" alt="Image" width="400">
      <h2><?php echo $row['Donation_title']; ?></h2>
      <p><?php echo $row['Donation_reason']; ?></p>

        <form action="DonorDonatePage.php" method="POST">
            <input type="hidden" name="donation_id" value="<?php echo $row['donation_id']; ?>">
            <button type="submit" name="checkInfo">Check Info</button>
        </form>
    </section>
    <?php
  }
} else {
  echo "No confirmed donations found.";
}
mysqli_close($con);
```

Figure 110 Donor Main page source code.

If the Donor clicks the Check Info button for any donation the system will display the donate page with the information of the donation that donor clicks on. It also has the donate or the payment information so Donor can fill in all the requirement data to do the donate and choose which method of donate used as Donor which provide a receipt with the donor information and add it to the Donor donation database or as a Ghost which will give only receipt with limit information like the tracking number and some other information. Notice if the user did not login, he still can donate but the system will automatically same it as a ghost donate method unless he chooses to be Donor and login.

<< Back to Donation Page



Donation ID	HumanitarianCrisis
Organization ID	YemenFood
Goal Amount	100000
Title	Addressing the Humanitarian Crisis in Yemen throug
Reason	Recognizing the urgency of the situation, a dedicated group of volunteers and humanitarian organizations has come together to launch a comprehensive food aid program for Yemen. The primary objective of this initiative is to provide essential food items to families and individuals who are struggling
Target Location	YEMEN
Story	In the war-torn nation of Yemen, a devastating humanitarian crisis has unfolded, leaving millions of people in a state of dire need. Widespread hunger and food insecurity have taken a toll on families, particularly affecting vulnerable groups such as children and the elderly. In the face of this dire situation, urgent action is required to provide essential food assistance and alleviate the suffering of those affected. The ongoing conflict has resulted in the destruction of infrastructure, disruption of food production and distribution systems, and the displacement of countless Yemeni families. The combination of limited access to basic necessities and soaring food prices has pushed

Figure 111 Donation Information for Donor.

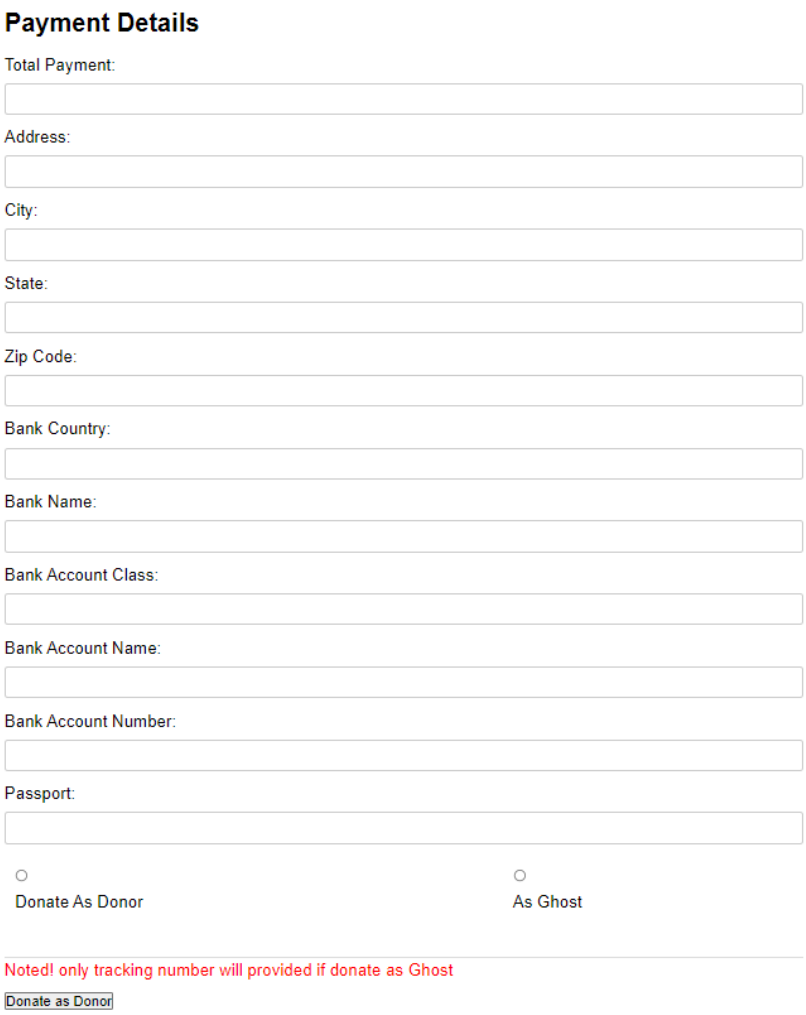


Figure 112 The required data to Donate or to do a payment.

When the Donate completed successfully the Donor will get a notify message of the status, and after that the system will generate a receipt with a unique tracking number and the donate information. The Donor has the ability to print and save the receipt by clicking on the print word.

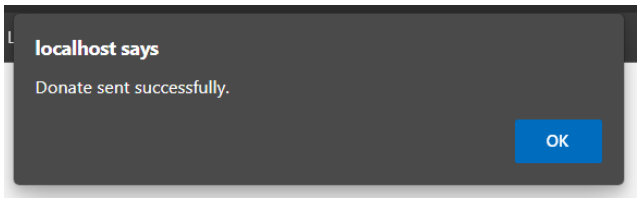


Figure 113 Donate notifies message.

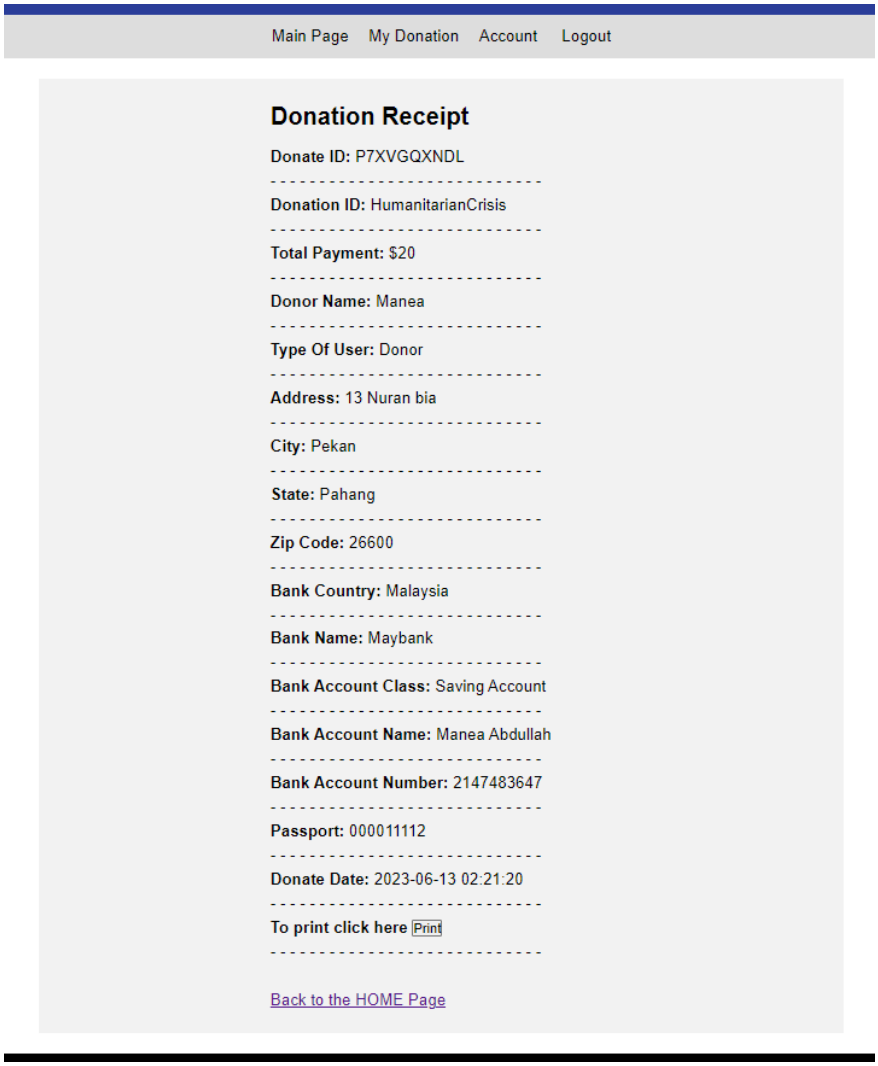


Figure 114 Donate receipt.

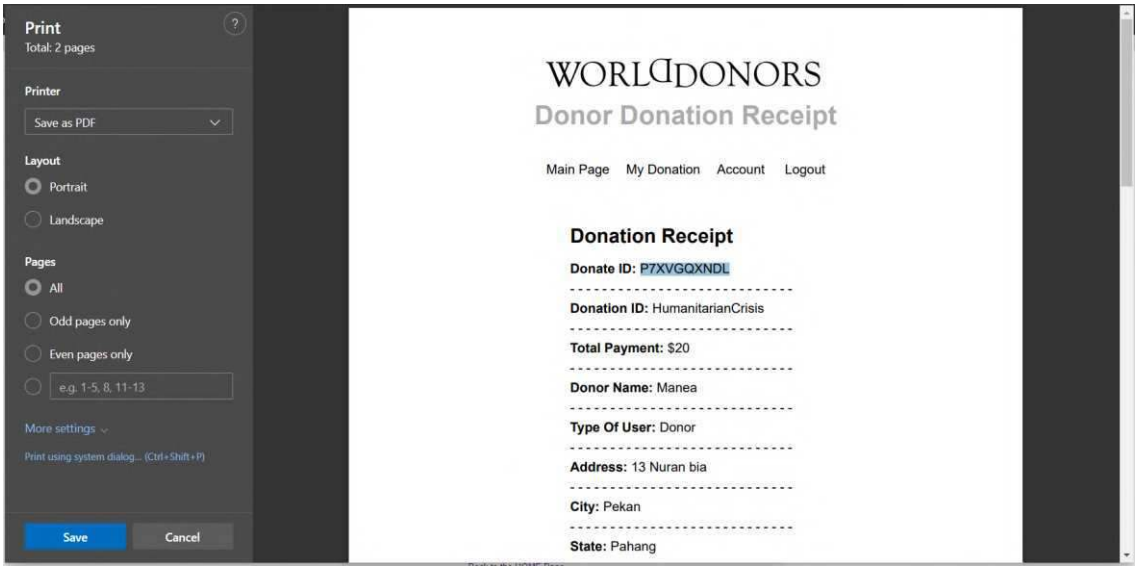


Figure 115 The receipt print page.

The Account page is where registered users can view and manage their personal information. Users can access this page by clicking on the "Account" link in the navigation menu. On this page, users can view and edit their name, email address, phone number, and password. Additionally, users can view their donation history, including the date and amount of each donation. Users can also update their notification preferences, such as opting in or out of email notifications about new donation opportunities or updates on their past donations.

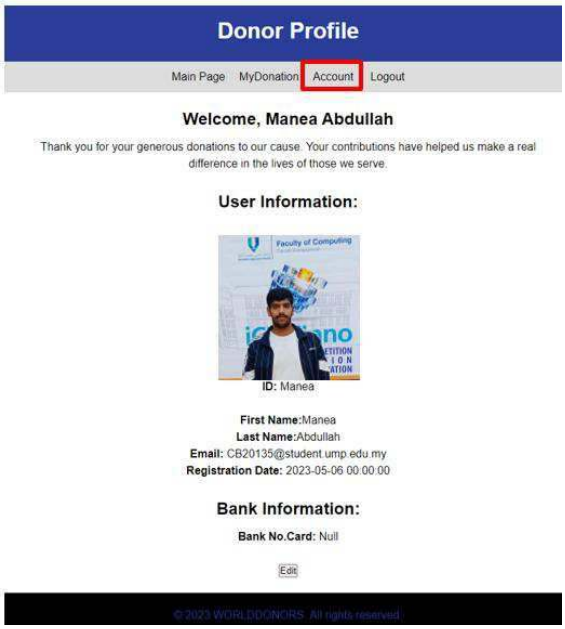


Figure 116 Donor Profile information at Account page.

```
Donor > DonorProfile.php
52
53      <nav>
54        <ul>
55        <li><a href="DonationHome.php">Main Page</a></li>
56          <li><a href="MyDonation.php">MyDonation</a></li>
57          <li><a href="DonorProfile.php">Account</a></li>
58          <li>  <a href="../login.php?logout=true"> Logout</a></li>
59        </ul>
60      </nav>
61      <main class="profile-container">
62        <h2>Welcome, <?php echo $donor['fname'] . ' ' . $donor['lname']; ?></h2>
63        <p>Thank you for your generous donations to our cause. Your contributions have
64          helped us make a real difference in the lives of those we serve.</p>
65       <br>
66       <h2><strong>User Information:</strong></h2><br>
67        <div>
68          <div class="profile-container img">
69              <img src="../imagefile/User-imag-profile.jpg" >
70              <p><strong>ID:</strong> <?php echo $donor['idname']; ?></p><br>
71          </div>
72
73          <p><strong>First Name:</strong><?php echo $donor['fname']; ?></p>
74          <p><strong>Last  Name:</strong><?php echo $donor['lname']; ?></p>
75          <div>
76              <p><strong>Email:</strong> <?php echo $donor['email']; ?></p>
77              <p><strong>Registration Date:</strong> <?php echo $donor['register_date']; ?></p>
78           </div><br>
79
80          <h2><strong>Bank Information:</strong></h2>
81          <p><strong>Bank No.Card:</strong> <?php echo isset($donor['Don_card']) ? $donor['Don_card'] : 'Null'; ?></p>
82          <br>
83                  <button type="submit" id="don_editprofile" name="don_editprofile" value="don_editprofile">Edit</button>
84      </main>
85      <footer>
86        <p>&copy; 2023 WORLDDONORS. All rights reserved.</p>
87      </footer>
```

Figure 117 Account page for Donor source code.

To check the donations of the Donor, he can't click on the “MyDonation” in the navigation bar. At this page the donor can check all the donations had been donated before, moreover the user can check the donate information using the tracking number from the receipt of the donation and the system will display the information that the Donor donated helps to do or used for.

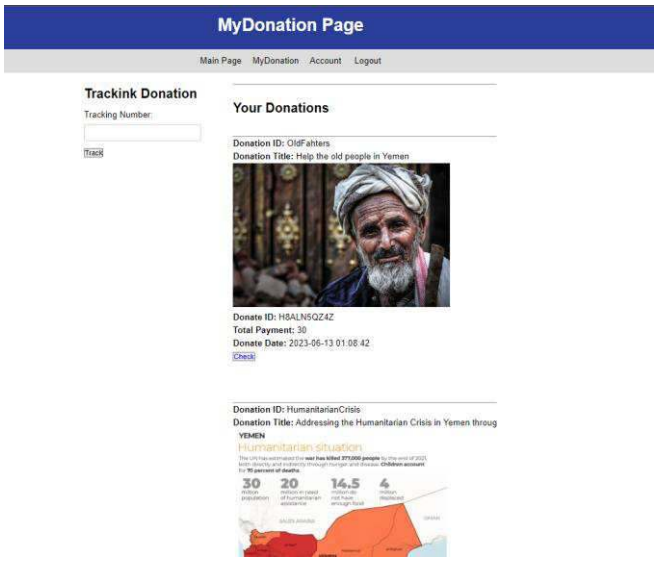


Figure 118 MyDonation page with the Donor donations.

Donor can click on the “Check” button to see all the data of the donation and the receipt of the donate which have has the tracking number.

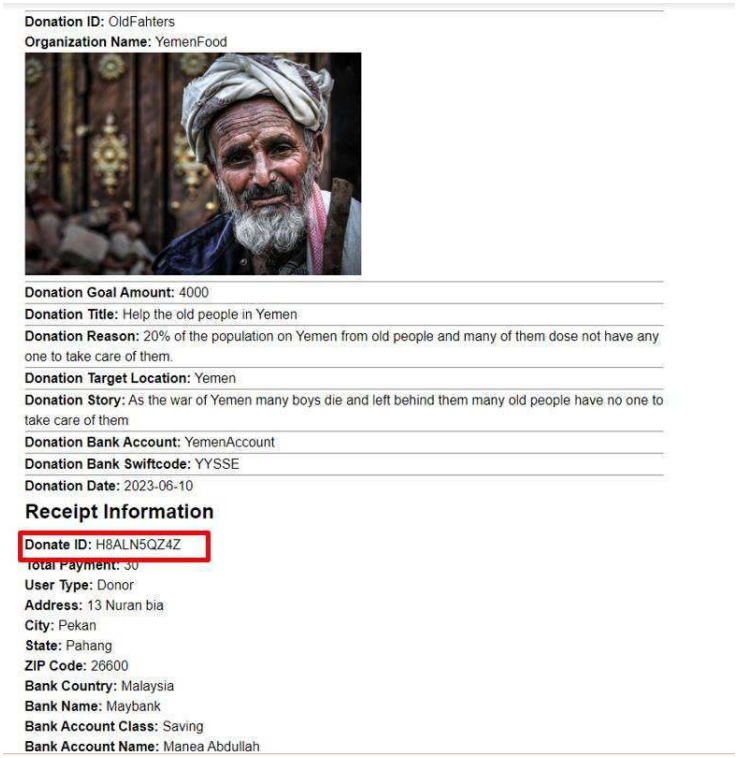


Figure 119 Donation and receipt information.

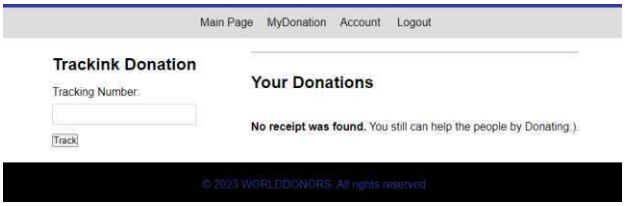


Figure 120 MyDonation page if the Donor does not have any donations.

If the donor wants to see the information of the tracking donate, just enter the tracking number or the Donate ID in the search box and the system will show the information if the amount of the donate already used or still on the Donation box.

Figure 121 Donor MyDonation page result of the tracking.

```php
    }
// Retrieve the relevant data based on the donor's ID or name
$query = "SELECT dr.donate_id, dr.total_payment, dr.donate_date, d.donation_id, d.Donation_title, d.image
          FROM donatereceipt dr
          JOIN donor dn ON dr.Don_idname = dn.idname
          JOIN donations d ON dr.donation_id = d.donation_id
          WHERE dn.idname = '$donor'";

$result = mysqli_query($con, $query);

if ($result) {
// Check if any rows are returned
if (mysqli_num_rows($result) > 0) {
  // Loop through the rows and display the retrieved information
  while ($row = mysqli_fetch_assoc($result)) {
    $donate_id = $row['donate_id'];
    $total_payment = $row['total_payment'];
    $donate_date = $row['donate_date'];
    $donation_id = $row['donation_id'];
    $donation_title = $row['Donation_title'];
    $image = $row['image'];

    // Display the information
    echo "<hr><strong>Donation ID:</strong> $donation_id<br>";
    echo "<strong>Donation Title:</strong> $donation_title<br>";
    echo '<img src="../uploads/' . $row['image'] . '" alt="Image" width="400"> <br>';
    echo "<strong>Donate ID:</strong> $donate_id<br>";
    echo "<strong>Total Payment:</strong> $total_payment<br>";
    echo "<strong>Donate Date:</strong> $donate_date<br>";
    echo '<form action="DonationInfo.php" method="POST">';
    echo '<input type="hidden" name="donate_id" value="' . $donate_id . '">';
    echo '<button type="submit" name="check" style="color: blue !important;">Check</button>';
    echo '</form>';
    echo '<br><br><br>';
  }
} else {
  // No rows returned, handle accordingly
```

Figure 122 MyDonation page source code.

4.3.4 Organization Page

When the organization get the confirmation to be a part of the WorldDonors then they can login to the system , the organization can see all the donations from the main page , and if they want to check or edit the information of the organization they can do this from the account page, moreover to send a donation request and see all the organization's donations they can from the Donation page, after any donation reserve donations from the donors they can make the transactions from the Transactions page which display all the active donations of the organization.

Figure 123 The home page and the navigation bar of the organization.

The Donation page serves as a centralized platform displaying all published and confirmed donations for the organization. By clicking on a specific donation, authorized users can access and edit the associated information. The system presents a detailed view of the donation, including donor details, contribution amount, date of donation, and any special instructions. To modify the data, users can simply click on the "Edit" button, which opens an intuitive interface with pre-filled fields. Authorized users can make necessary changes and save the updated information, ensuring accurate and up-to-date records. This editing functionality allows the organization to adapt to any changes or corrections required while maintaining transparency and efficiency in managing donation records.

Figure 124 Organization Donation page.

Organization > OrgDonations.php

```php
    $con = mysqli_connect($host, $username, $password, $database);
    if (mysqli_connect_errno()) {
      echo "Failed to connect to MySQL: " . mysqli_connect_error();
      exit();
    }

    $idname = $_SESSION['idname'];

// Construct the query
$query = "SELECT * FROM donations WHERE idname = '$idname'";
$result = mysqli_query($con, $query);

// Check if any donations were found
if (mysqli_num_rows($result) > 0) {
    // Display the donations in a table
    // echo '<table>';

    while ($row = mysqli_fetch_assoc($result)) {
        echo '<tr>';
        echo '<tr><th> <strong>Donation ID   :</strong></th>';
        echo '<td>' . $row['donation_id'] . '</td><br>';
        echo '<th><strong>Goal Amount   :</strong></th>';
        echo '<td>' . $row['Donation_goal_amount'] . '</td><br>';
        echo '<th><strong>Title   :</strong></th>';
        echo '<td>' . $row['Donation_title'] . '</td><br>';
        echo '<th><strong>Target Location   :</strong></th>';
        echo '<td>' . $row['Donation_target_location'] . '</td><br>';
        echo '<td><img src="../uploads/' . $row['image'] . '" alt="Image" width="400"></td><br>';
        echo '<th><strong>Date   :</strong></th>';
        echo '<td>' . $row['DonationDate'] . '</td><br><br>';
        echo '</tr>';
    }
```

Figure 125 Organization Donation page source code.

Moreover, in the same page they can send a donation request to the admin by fill on all the required information related to the donation which they want to publish it and as soon as the admin confirm the donation, it will display on the Main page and the donors can start donating. Noted the donation id must be unique and if it already exists, they can know from the notify message at the top of the donation Id bar (live checking donation ID name).

Figure 126 Donation ID live check.

```
Organization > OrgDonations.php
57          </section>
58
59      </div>
60      <div class="donation-div2">
61      <form method="post" action="../controler.php"  enctype="multipart/form-data">
62
63          <h2>Donation Request</h2><br>
64
65       <?php if(isset($_GET['error'])) { ?>
66              <p class="error" style="color: red !important;"> <?php echo $_GET['error']; ?></p>
67          <?php } ?>
68          <?php if(isset($_GET['sucsse'])) { ?>
69              <p class="sucsse" style="color: Green !important;"> <?php echo $_GET['sucsse']; ?></p>
70          <?php } ?>
71
72    <label for="livedonation">Donation ID:</label><br>
73
74     <span id="live-check-donation"></span>
75   <input type="text" id="livedonation" name="livedonation" placeholder="Need to be unique without space"  required onInput="orglivedonation()"/>
76   <small>No spaces allowed in the Donation ID.</small>
77
78  </style>
79
80    <label for="donation_goal">Donation Goal Amount:</label>
81    <input type="text" id="donation_goal" name="donation_goal" required>
82
83    <label for="donation_title">Donation Title:</label>
84    <input type="text" id="donation_title" name="donation_title" required>
85
86    <label for="donation_reason">Donation Reason:</label>
87    <textarea rows="7"  cols="30" id="donation_reason" name="donation_reason" required></textarea>
88
89    <label for="donation_story">Donation Story:</label>
90    <textarea rows="8"  cols="30" id="donation_story" name="donation_story" required></textarea>
91
92    <label for="donation_location">Donation Target Location:</label>
93    <input type="text" id="donation_location" name="donation_location" required>
```

```
122         <script>
123
124   function orglivedonation() {
125     const livedonation = document.getElementById("livedonation").value;
126     if (livedonation) {
127       fetch('../controler.php', {
128         method: 'POST',
129         headers: {
130           'Content-type': 'application/x-www-form-urlencoded'
131         },
132         body: 'livedonation=' + encodeURIComponent(livedonation)
133       })
134       .then(response => response.text())
135       .then(data => {
136         document.getElementById("live-check-donation").innerHTML = data;
137         const submitBtn = document.getElementById("org_RequestDonation");
138         if (data.includes('green')) {
139           submitBtn.disabled = false;
140         } else {
141           submitBtn.disabled = true;
142         }
143       })
144       .catch(error => console.error(error));
145     } else {
146       document.getElementById("live-check-donation").innerHTML = '';
147       document.getElementById("org_RequestDonation").disabled = true;
148     }
149   }
```

Figure 127 Organization Donation page with the live check function.

If the organization want to start using the donation box the can do this from the Transaction page which allow the organization to see all the donations box and how much it have then if the click to anyone of them a page will displayed which have the required information must be entered from the organization like amount of donate will used and expected date to send the proof of the transaction. Also, in case they try to use amount of donate which is more than the box has, the system will notify them that they try to get amount more than the box have.

Figure 128 Organization Transaction page.

```
Organization > OrgTransactions.php
65  // Retrieve the organization's donation information
66  $donationQuery = "SELECT * FROM donations WHERE idname = '{$Organization['idname']}' AND Activision_type = 'Confirm'  ";
67  $donationResult = mysqli_query($con, $donationQuery);
68
69  if ($donationResult) {
70      // Check if any rows are returned
71      if (mysqli_num_rows($donationResult) > 0) {
72          // Display table header
73          echo "<table>";
74          echo "<tr>";
75          echo "<th>Donation ID</th>";
76          echo "<th>Donation Title</th>";
77          echo "<th>Country</th>";
78          echo "<th>Bank Number</th>";
79          echo "<th>Goal Amount</th>";
80          echo "<th>Current Amount</th>";
81          echo "<th>Used Amount</th>";
82          echo "<th>Status</th>";
83          echo "<th>--</th>";
84          echo "</tr>";
85
86          // Loop through the rows and display the retrieved information
87          while ($row = mysqli_fetch_assoc($donationResult)) {
88              $donation_id = $row['donation_id'];
89              $donation_title = $row['Donation_title'];
90              $donation_goal_amount = $row['Donation_goal_amount'];
91              $donation_target_location = $row['Donation_target_location'];
92              $Donation_bank_account = $row['Donation_bank_account'];
93
94              // Retrieve the current_Box value from the boxtracker table
95              $boxtrackerQuery = "SELECT current_Box , amount_used  FROM boxtracker WHERE Donation_used = '$donation_id' " ;
96              $boxtrackerResult = mysqli_query($con, $boxtrackerQuery);
97
98              if ($boxtrackerResult && mysqli_num_rows($boxtrackerResult) > 0) {
99                  $boxtrackerRow = mysqli_fetch_assoc($boxtrackerResult);
100                 $current_Box = $boxtrackerRow['current_Box'];
101                 $amount_used = $boxtrackerRow['amount_used'];
```

Figure 129 Organization transaction page source code.

If they want to do the transaction, they can click on the view button for the donation which will display all the donation Box information and from there they can then fill-in the require data and click on the “Send Transaction” button also the system will notify the organization about the transaction status.

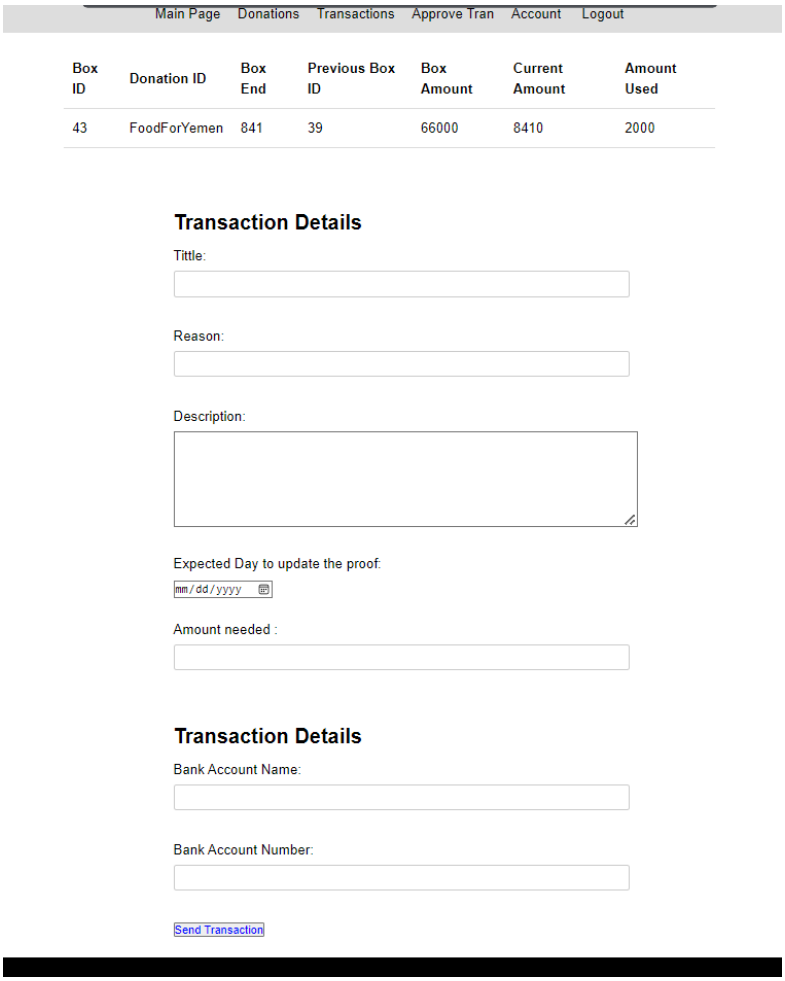


Figure 130 Display the transaction information page .

```php
Organization > display_transaction.php
// Retrieve the transaction information based on the BOXID
if (isset($boxID)) {
  // Retrieve the transaction information based on the BOXID
  $transactionQuery = "SELECT * FROM testbox WHERE boxID = '$boxID'";
  $transactionResult = mysqli_query($con, $transactionQuery);

  if ($transactionResult && mysqli_num_rows($transactionResult) > 0) {
      // Display the transaction information in a table
      echo '<table class="Trans">';
      echo '<tr><th>Box ID</th><th>Donation ID</th><th>Box End</th><th>Previous Box ID</th><th>Box Amount</th><th>Current Amount</th><th>Amount

      while ($row = mysqli_fetch_assoc($transactionResult)) {
          $DonationID = $row['DonationID'];
          $current_amount=  $row['current_amount'];

          // Retrieve the amount_used from the boxtracker table
          $boxTrackerQuery = "SELECT amount_used FROM boxtracker WHERE Donation_used = '$DonationID'";
          $boxTrackerResult = mysqli_query($con, $boxTrackerQuery);
          $roww = mysqli_fetch_assoc($boxTrackerResult);

          echo '<tr>';
          echo '<td>' . $row['boxID'] . '</td>';
          echo '<td>' . $row['DonationID'] . '</td>';
          echo '<td>' . $row['box_end'] . '</td>';
          echo '<td>' . $row['previous_box_ID'] . '</td>';
          echo '<td>' . $row['box_amount'] . '</td>';
          echo '<td>' . $row['current_amount'] . '</td>';
          echo '<td>' . $roww['amount_used'] . '</td>';
          echo '</tr>';
      }

      echo '</table>';
  } else {
      echo 'No transaction information found for the BOXID: ' . $boxID;
  }
} else {
```

Figure 131 Source code of the transaction display page.

At the Approve transaction page, the organization have the ability to see all the transaction that used before with the expecting date of update the proof, moreover they can see the status of the transaction if it already approves or they still not give yet.

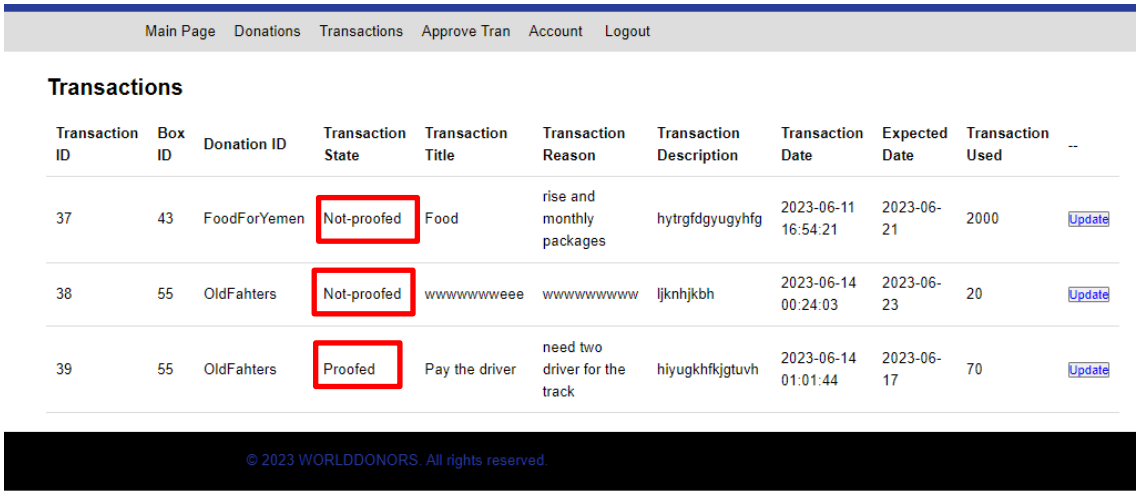


Figure 132 The Approve Transaction page.

Organization > OrgApproveTran.php

```
51    <h2>Transactions</h2>
52    <?php
53  $transactionsQuery = "SELECT * FROM transactions WHERE Org_name = '{$Organization['idname']}' " ;
54  $transactionsResult = mysqli_query($con, $transactionsQuery);
55    if ($transactionsResult && mysqli_num_rows($transactionsResult) > 0) {
56      echo '<table>';
57      echo '<tr>';
58      echo '<th>Transaction ID</th>';
59      echo '<th>Box ID</th>';
60      echo '<th>Donation ID</th>';
61      echo '<th>Transaction State</th>';
62      echo '<th>Transaction Title</th>';
63      echo '<th>Transaction Reason</th>';
64      echo '<th>Transaction Description</th>';
65      echo '<th>Transaction Date</th>';
66      echo '<th>Expected Date</th>';
67      echo '<th>Transaction Used</th>';
68      echo '<th>--</th>';
69      echo '</tr>';
70      while ( $transactionsrRow = mysqli_fetch_assoc($transactionsResult)) {
71        echo '<tr>';
72        echo '<td>' . $transactionsrRow['trans_id'] . '</td>';
73        echo '<td>' . $transactionsrRow['box_id'] . '</td>';
74        echo '<td>' . $transactionsrRow['Donation_id'] . '</td>';
75        echo '<td>' . $transactionsrRow['trans_state'] . '</td>';
76        echo '<td>' . $transactionsrRow['trans_title'] . '</td>';
77        echo '<td>' . $transactionsrRow['trans_reson'] . '</td>';
78        echo '<td>' . $transactionsrRow['trans_description'] . '</td>';
79        echo '<td>' . $transactionsrRow['trans_date'] . '</td>';
80        echo '<td>' . $transactionsrRow['trans_expected_date'] . '</td>';
81        echo '<td>' . $transactionsrRow['trans_used'] . '</td>';
82        echo '<td>';
83        echo '<form action="display_UpdateTrans.php" method="POST">';
84        echo '<input type="hidden" name="trans_id" value="' . $transactionsrRow['trans_id'] . '">';
85        echo '<button type="submit" name="Update" style="color: blue !important;">Update</button>';
86        echo '</form>';
87        echo '</td>';
```

Figure 133 Approve transaction page source code.

If they want to update any transaction from the list they can click on the update button which will display all the transaction data and ask the organization to give the proof like image, receipt and description information and those data will be the information used to notify the donor about their donation status.

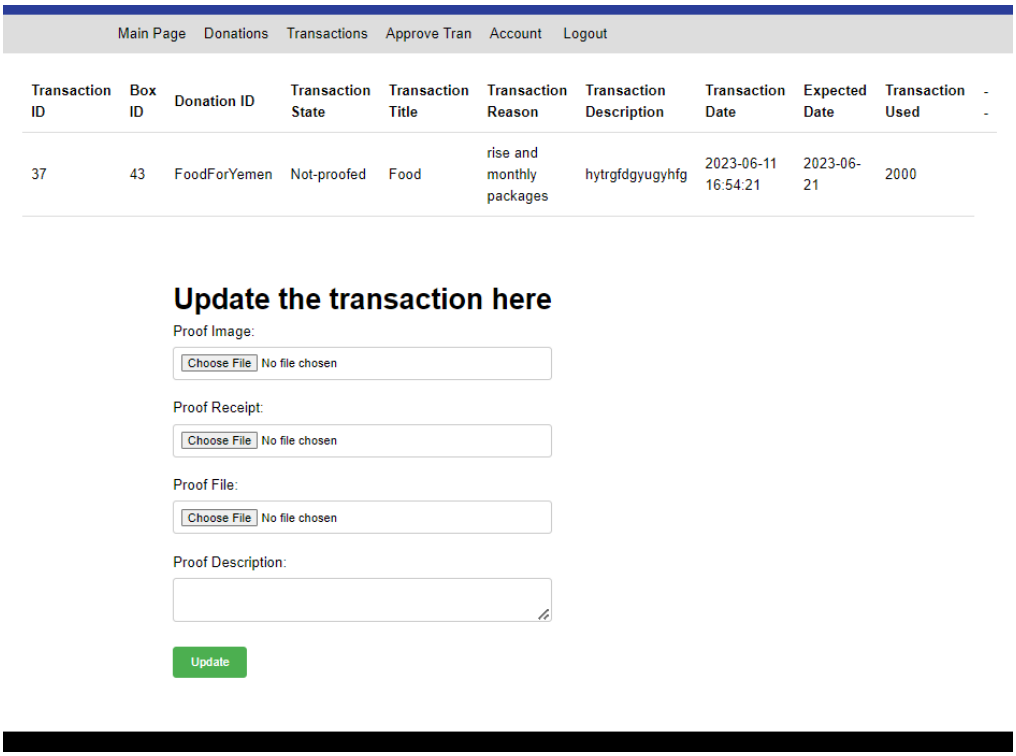


Figure 134 Update transaction page.

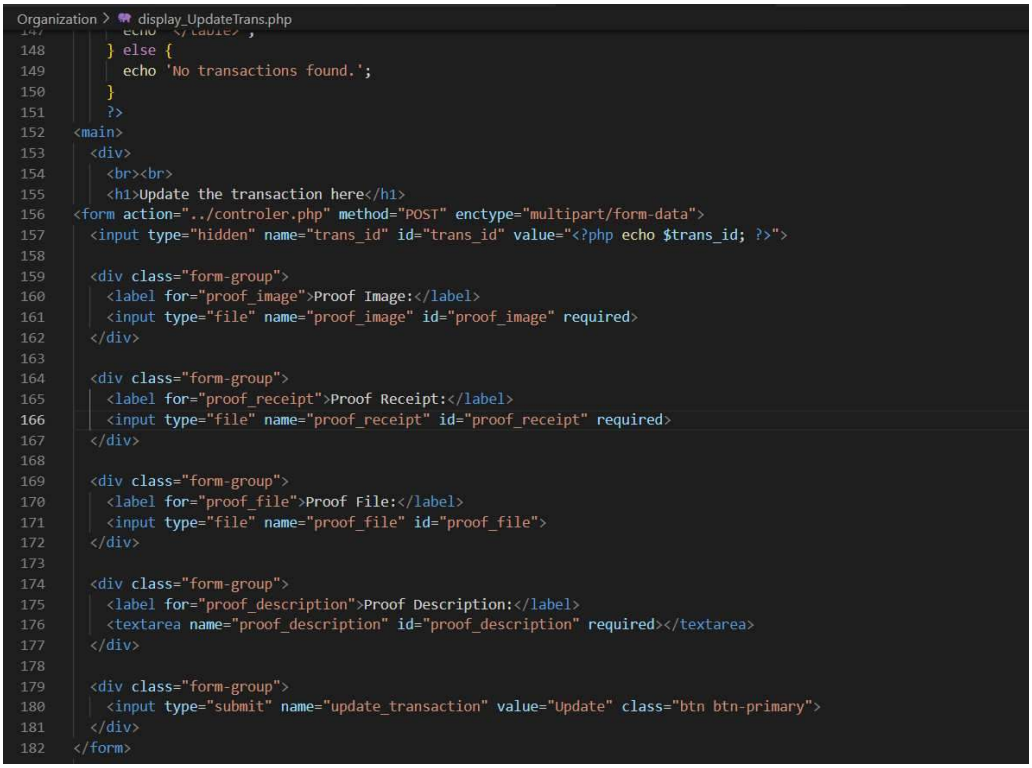


Figure 135 Display update transaction page source code.

At the Organization Account page, they can see all the information of the organization and if they need to change some requirement like bank account number or the bank used to get the donations they can click on the edit button and enter the new data after save it the request of edit the organization account will send to the admin and as soon as the admin check it and confirm the request, the organization information will update.

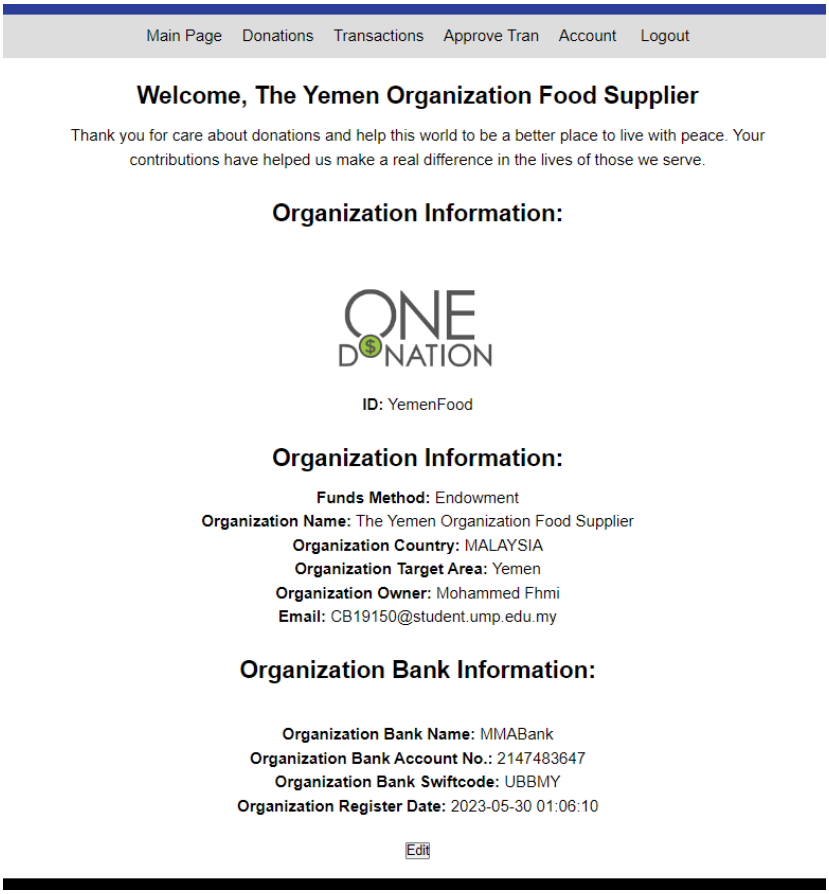


Figure 136 Account page for the Organization.

```
Organization > OrganizationProfile.php
62      <main class="profile-container">
63    <h2>Welcome, <?php echo $Organization['Org_name']?></h2>
64    <p>Thank you for care about donations and help this world to be a better place to live with peace.
65      Your contributions have helped us make a real difference in the lives of those we serve.</p>
66    <br>
67    <h2><strong>Organization Information:</strong></h2><br>
68    <div>
69      <div class="profile-container img">
70        <img src="../imagefile/org-image-profile.png">
71        <p><strong>ID:</strong> <?php echo $Organization['idname']; ?></p><br>
72      </div>
73      <h2><strong>Organization Information:</strong></h2>
74      <p><strong>Funds Method:</strong> <?php echo isset($Organization['Funds_method']) ? $Organization['Funds_method'] : 'Null'; ?></p>
75      <p><strong>Organization Name:</strong> <?php echo isset($Organization['Org_name']) ? $Organization['Org_name'] : 'Null'; ?></p>
76      <p><strong>Organization Country:</strong> <?php echo isset($Organization['Org_country']) ? $Organization['Org_country'] : 'Null'; ?></p
77      <p><strong>Organization Target Area:</strong> <?php echo isset($Organization['Org_target_area']) ? $Organization['Org_target_area'] : '
78      <p><strong>Organization Owner:</strong> <?php echo isset($Organization['Org_owner']) ? $Organization['Org_owner'] : 'Null'; ?></p>
79      <p><strong>Email:</strong> <?php echo isset($Organization['email']) ? $Organization['email'] : 'Null'; ?></p>
80      <br> <h2><strong>Organization Bank Information:</strong></h2><br>
81      <p><strong>Organization Bank Name:</strong> <?php echo isset($Organization['Org_bankname']) ? $Organization['Org_bankname'] : 'Null'; ?
82      <p><strong>Organization Bank Account No.:</strong> <?php echo isset($Organization['Org_bank_account_no']) ? $Organization['Org_bank_acc
83      <p><strong>Organization Bank Swiftcode:</strong> <?php echo isset($Organization['Org_bank_swiftcode']) ? $Organization['Org_bank_swiftc
84      <p><strong>Organization Register Date:</strong> <?php echo isset($Organization['Org_register_date']) ? $Organization['Org_register_date
85    </div><br>
86    <button type="submit" id="Org_editprofile" name="Org_editprofile" value="Org_editprofile">Edit</button>
87  </main>
```

Figure 137 Organization account page source code.

4.3.5 Admin Pages

The admin pages provide essential tools and functionalities for managing various aspects of the organization's operations. These pages include the User List, Donation Request, Registration Request, and Transaction sections, each serving a specific purpose in facilitating efficient administrative tasks.

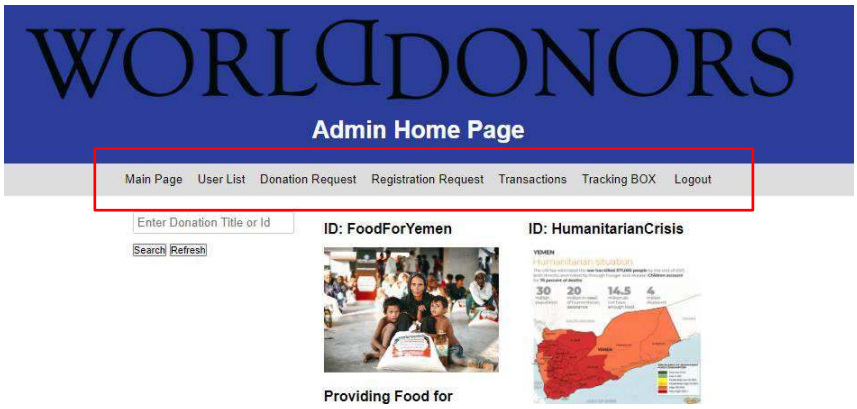
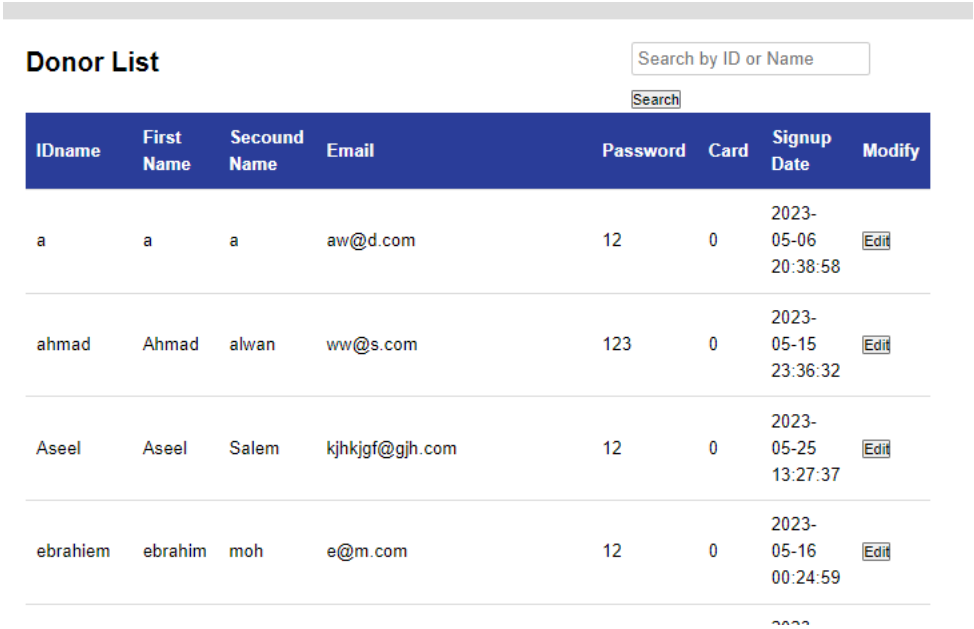


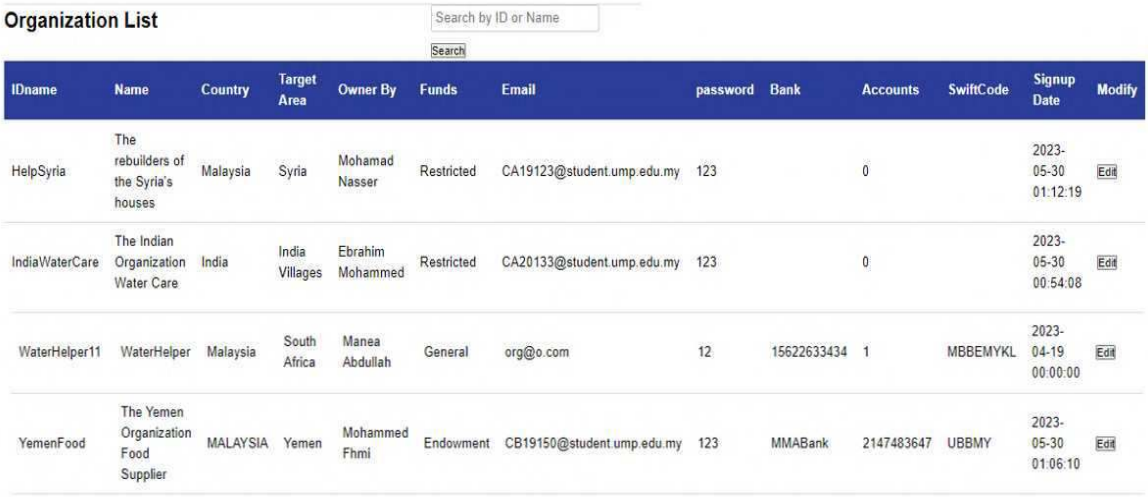
Figure 138 Admin Main page .

The User List page offers a comprehensive overview of all registered users within the system. It displays relevant information about each user, such as their username, email address, role, and any additional details. This page allows administrators to search, sort, and filter user profiles based on specific criteria, enabling them to efficiently manage and monitor user accounts.



IDname	First Name	Secound Name	Email	Password	Card	Signup Date	Modify
a	a	a	aw@d.com	12	0	2023-05-06 20:38:58	Edit
ahmad	Ahmad	alwan	ww@s.com	123	0	2023-05-15 23:36:32	Edit
Aseel	Aseel	Salem	kjhkjgf@gjh.com	12	0	2023-05-25 13:27:37	Edit
ebrahiem	ebrahim	moh	e@m.com	12	0	2023-05-16 00:24:59	Edit

Figure 139 Admin User list at Donor table page.



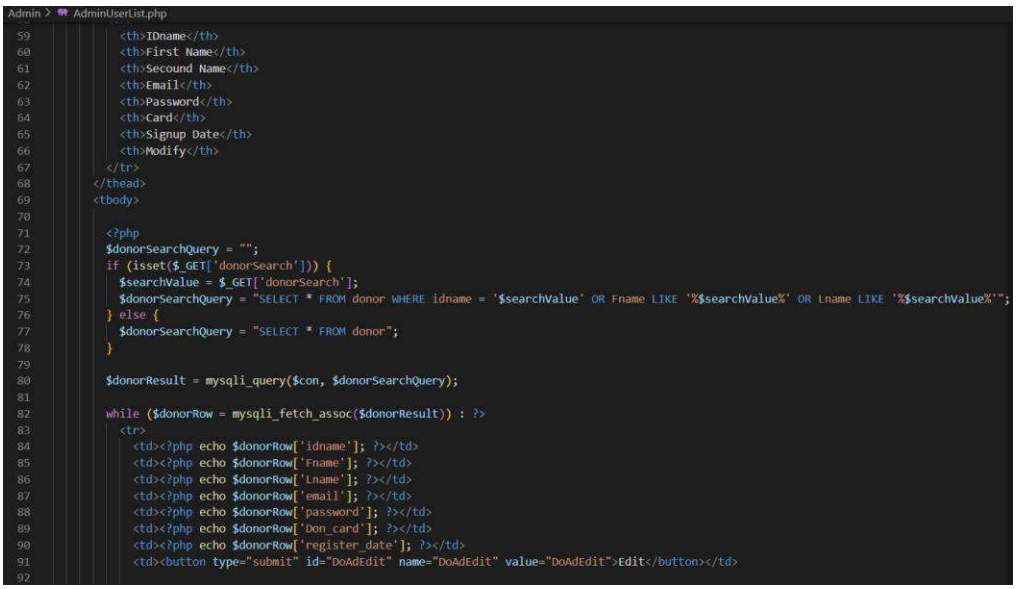
Organization List

Search by ID or Name

Search

IDname	Name	Country	Target Area	Owner By	Funds	Email	password	Bank	Accounts	SwiftCode	Signup Date	Modify
HelpSyria	The rebuilders of the Syria's houses	Malaysia	Syria	Mohamad Nasser	Restricted	CA19123@student.ump.edu.my	123		0		2023-05-30 01:12:19	Edit
IndiaWaterCare	The Indian Organization Water Care	India	India Villages	Ebrahim Mohammed	Restricted	CA20133@student.ump.edu.my	123		0		2023-05-30 00:54:08	Edit
WaterHelper11	WaterHelper	Malaysia	South Africa	Manea Abdullah	General	org@o.com	12	15622633434	1	MBBEMYKL	2023-04-19 00:00:00	Edit
YemenFood	The Yemen Organization Food Supplier	MALAYSIA	Yemen	Mohammed Fhmi	Endowment	CB19150@student.ump.edu.my	123	MMABank	2147483647	UBBMY	2023-05-30 01:06:10	Edit

Figure 140 Admin User List Organization table.



Admin > AdminUserList.php

```
        <th>IDname</th>
        <th>First Name</th>
        <th>Secound Name</th>
        <th>Email</th>
        <th>Password</th>
        <th>Card</th>
        <th>Signup Date</th>
        <th>Modify</th>
      </tr>
    </thead>
    <tbody>

      <?php
      $donorSearchQuery = "";
      if (isset($_GET['donorSearch'])) {
        $searchValue = $_GET['donorSearch'];
        $donorSearchQuery = "SELECT * FROM donor WHERE idname = '$searchValue' OR Fname LIKE '%$searchValue%' OR Lname LIKE '%$searchValue%'";
      } else {
        $donorSearchQuery = "SELECT * FROM donor";
      }

      $donorResult = mysqli_query($con, $donorSearchQuery);

      while ($donorRow = mysqli_fetch_assoc($donorResult)) : ?>
        <tr>
          <td><?php echo $donorRow['idname']; ?></td>
          <td><?php echo $donorRow['Fname']; ?></td>
          <td><?php echo $donorRow['Lname']; ?></td>
          <td><?php echo $donorRow['email']; ?></td>
          <td><?php echo $donorRow['password']; ?></td>
          <td><?php echo $donorRow['Don_card']; ?></td>
          <td><?php echo $donorRow['register_date']; ?></td>
          <td><button type="submit" id="DoAdEdit" name="DoAdEdit" value="DoAdEdit">Edit</button></td>
```

Figure 141 Admin User List page source code.

The Donation Request page serves as a hub for managing incoming donation requests. It provides administrators with a centralized view of all pending donation requests submitted by donors. The page typically displays crucial details about each request, such as the donor's name, contact information, donation amount, and any specific instructions or designations. Administrators can review, approve, or decline donation requests, ensuring proper oversight and control over the donation process.

You can search here: Enter Donation ID or Organiz

Search Refresh

Donation ID	Organization ID	Goal Amount	Title	Reason	Target Location	Story	Bank Account	Bank Swift Code	Date	Activation Type	Modify
IndiaVillage	IndiaWaterCare	54900	Water Source for India Village	Lack of access to clean water is a major challenge faced by the India village. By addressing this issue, we can significantly improve the health and w	India	The village of India is in desperate need of a reliable water source. The residents have been struggling for years due to the scarcity of clean drinki	0001189379	INDJJK	2023-05-30	Confirm	Check
SyrianChildren	HelpSyria	33000	House for Syria Children	The Syria Children's Shelter needs a new house to protect the children from the harsh winter conditions. By providing them with a safe and warm living	Syria	Syria Children is a shelter that provides care and support for underprivileged children. However, the current facilities are inadequate, especially du	1533220021	SSDSA	2023-05-30	Confirm	Check
water11	WaterHelper11	2000	Water	water help	jafwfg	as a problem of ...	00112200	MMDFFF	2023-05-27	Dismiss	Check
water1	qq	5000	lkjhjh	kljhgj	kjhighj	kljhg	876	ljkhg	2023-05-22	Dismiss	Check
SOS	qq	2000	Ebrahim PSM1	He got problems	Pekan	Ebrahim a smart student but get a 4X superhero Title in his PSM1	156000021	MMKKS	2023-05-20	Dismiss	Check
needHelp	qq	23400	khjkg	kljlhg	kljh	kljh	23456	jkhn	2023-05-11	Dismiss	Check

Figure 142 Admin Donation request page.

Admin > AdminDonations.php

```
<tr>
  <th>Donation ID</th>
  <th>Organization ID</th>
  <th>Goal Amount</th>
  <th>Title</th>
  <th>Reason</th>
  <th>Target Location</th>
  <th style="width: 30%;">Story</th>
  <th>Bank Account</th>
  <th>Bank Swift Code</th>
  <th>Date</th>
  <th>Activation Type</th>
  <th>Modify</th>
</tr>
</thead>
<tbody>
  <?php
  while ($row = mysqli_fetch_assoc($searchResult)) :
    ?>
    <tr>
      <td><?php echo $row['donation_id']; ?></td>
      <td><?php echo $row['idname']; ?></td>
      <td><?php echo $row['Donation_goal_amount']; ?></td>
      <td><?php echo $row['Donation_title']; ?></td>
      <td><?php echo $row['Donation_reason']; ?></td>
      <td><?php echo $row['Donation_target_location']; ?></td>
      <td><?php echo $row['Donation_story']; ?></td>
      <td><?php echo $row['Donation_bank_account']; ?></td>
      <td><?php echo $row['Donation_bank_swiftcode']; ?></td>
      <td><?php echo $row['DonationDate']; ?></td>
      <td class="<?php echo $row['Activision_type'] === 'Confirm' ? 'confirm' : 'Not-confirm'; ?>">
          <?php echo $row['Activision_type']; ?></td>
<td>
      <form action="display_donation.php" method="POST">
        <input type="hidden" name="donation_id" value="<?php echo $row['donation_id']; ?>">
        <button type="submit" name="check" style="color: blue !important;">Check</button>
      </form>
```

Figure 143 Donation request page source code.

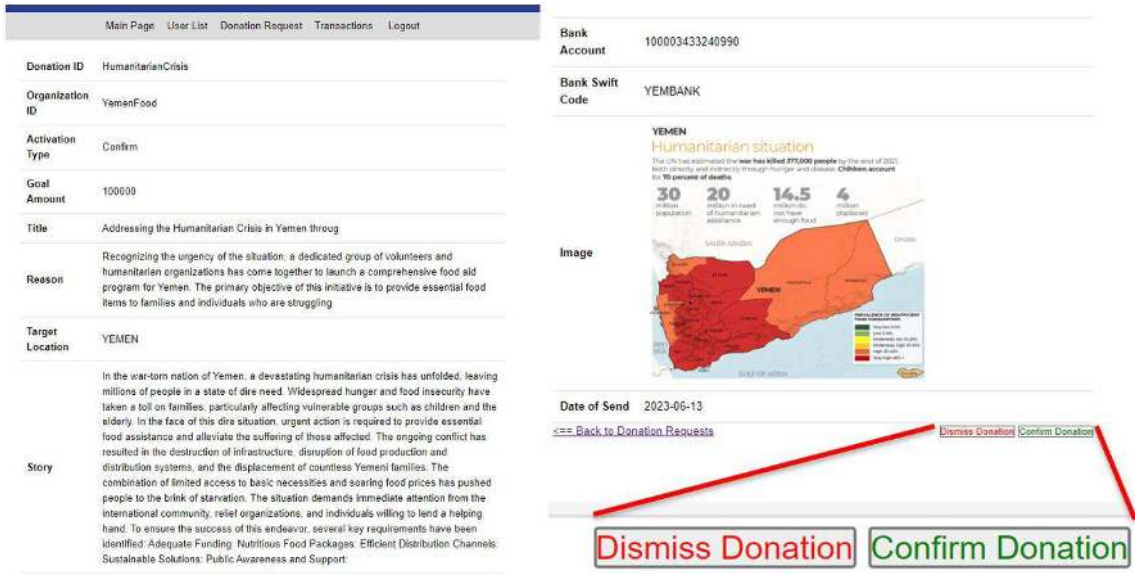


Figure 144 Check the donation data and he Dismiss or Confirm buttons.

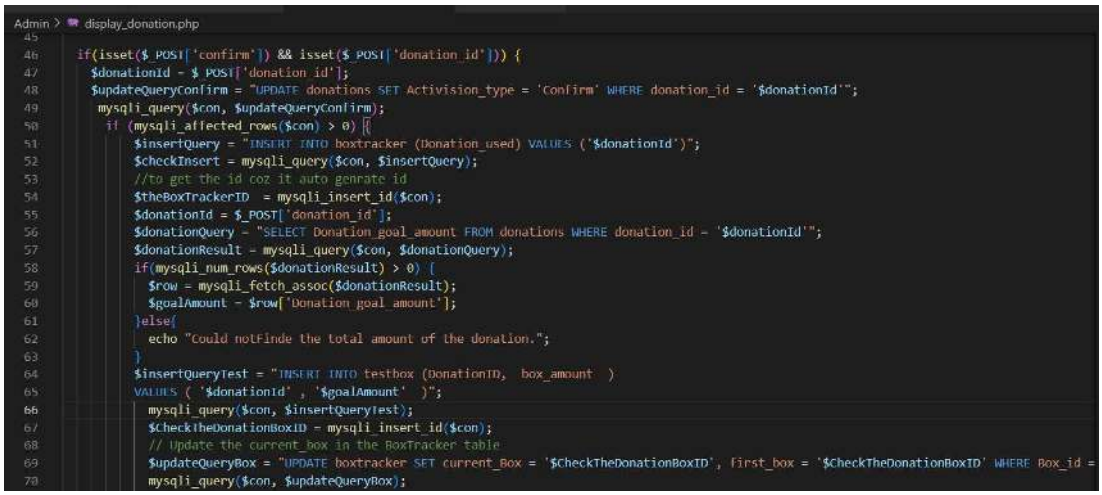


Figure 145 Check donation information page source code.

the Admin Registration page serves as the administrative interface for managing registration requests from organizations wishing to participate in the donation system. Administrators can review the details of each request, including organization information and attached certification documents, to assess eligibility. They have the authority to confirm requests, update the login status to "confirmed," or dismiss requests, permanently removing the organization's data. The page may include search and filtering options for efficient request handling, along with error and success message handling. Its primary purpose is to ensure transparency and reliability in the donation system by effectively managing registration requests and maintaining the integrity of the system.

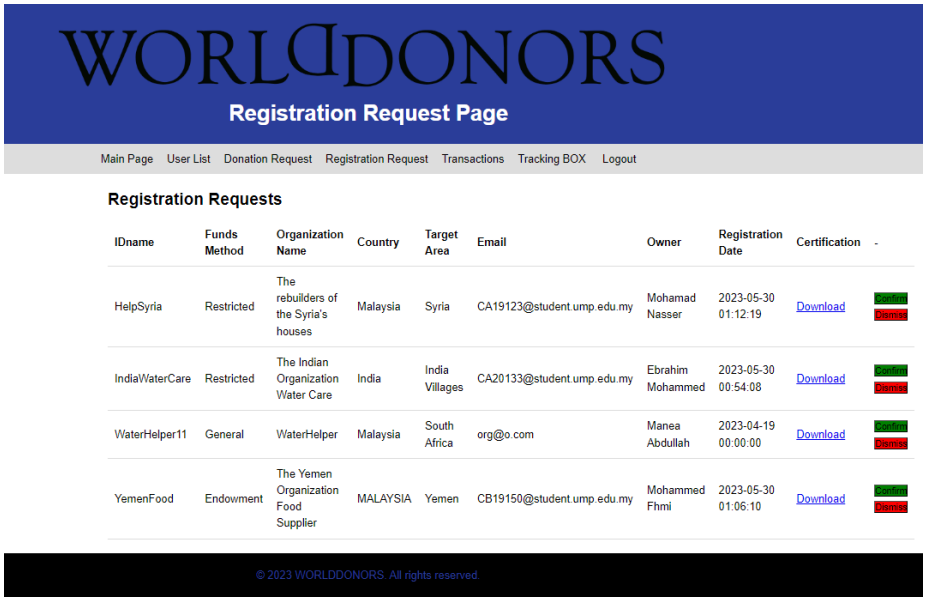


Figure 146 Admin Organization request.

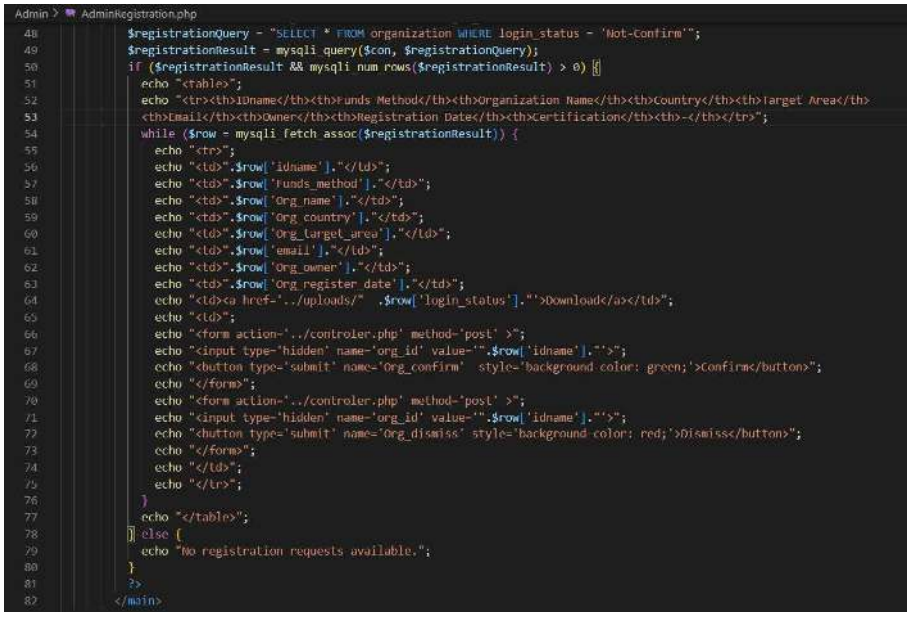


Figure 147 Admin Registration Source code.

The Transaction page provides a comprehensive record of all financial transactions within the organization. It displays information related to monetary transfers, including the date, amount, donor or recipient details, and the purpose of the transaction. Administrators can use this page to review and track financial activities, ensuring transparency and accountability in managing funds.

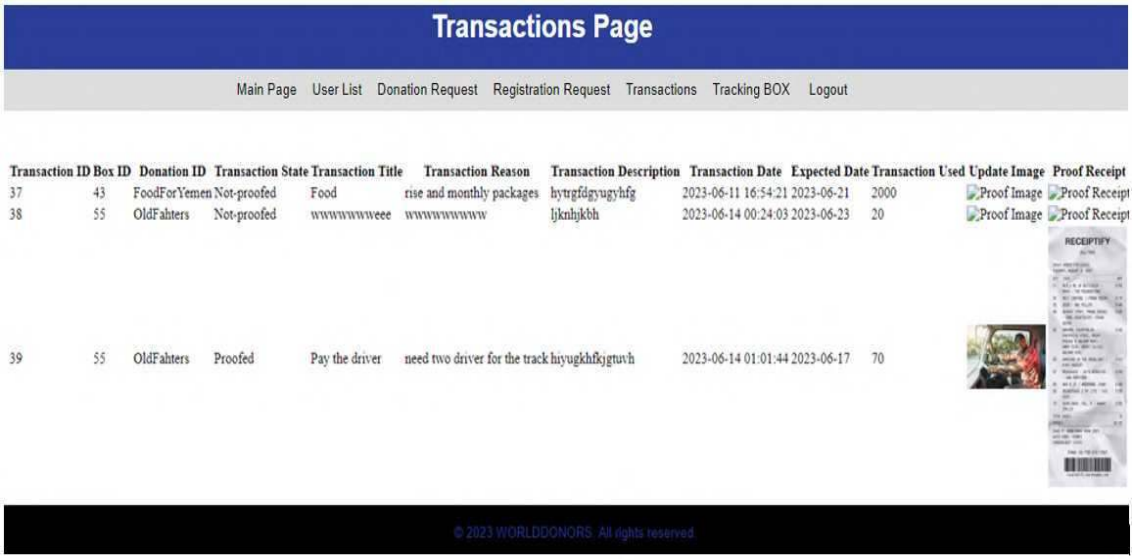


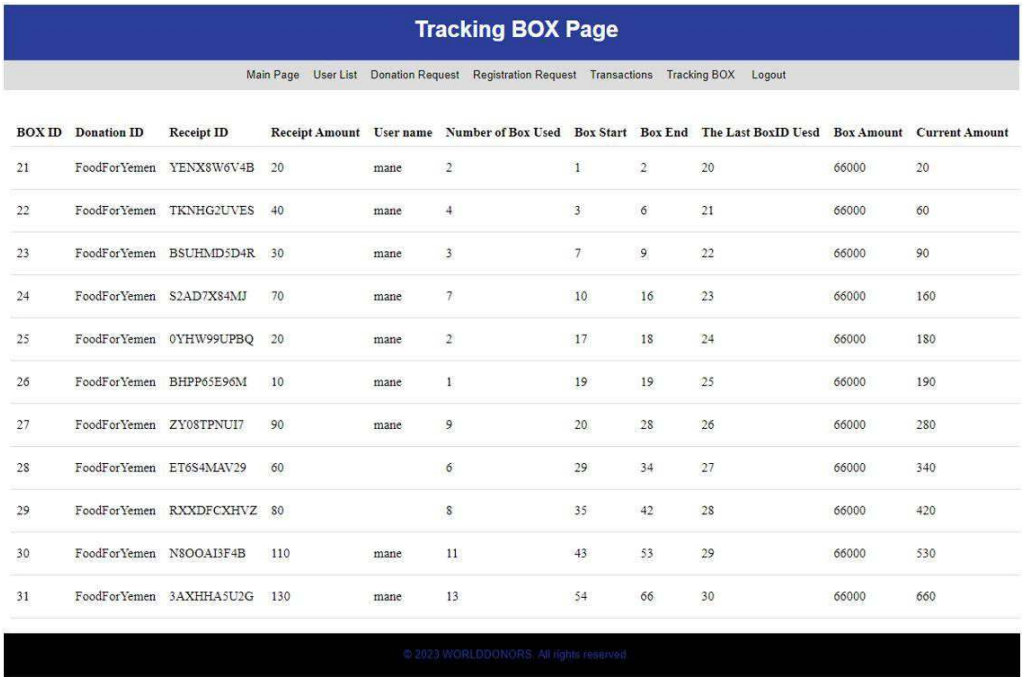
Figure 148 Admin Transaction page.

```
36      echo '<th>Transaction Date</th>';
37      echo '<th>Expected Date</th>';
38      echo '<th>Transaction Used</th>';
39      echo '<th>Update Image</th>';
40      echo '<th>Proof Receipt</th>';
41      echo '<th>Proof File</th>';
42      echo '<th>Proof Description</th>';
43      echo '<th>--</th>';
44      echo '</tr>';
45
46      while ( $transactionsrRow = mysqli_fetch_assoc($transactionsResult)) {
47
48      // foreach ($transactionsrRow as $transactionsr) {
49
50        echo '<tr>';
51        echo '<td>' . $transactionsrRow['trans_id'] . '</td>';
52        echo '<td>' . $transactionsrRow['box_id'] . '</td>';
53        echo '<td>' . $transactionsrRow['Donation_id'] . '</td>';
54        echo '<td>' . $transactionsrRow['trans_state'] . '</td>';
55        echo '<td>' . $transactionsrRow['trans_title'] . '</td>';
56        echo '<td>' . $transactionsrRow['trans_reson'] . '</td>';
57        echo '<td>' . $transactionsrRow['trans_description'] . '</td>';
58        echo '<td>' . $transactionsrRow['trans_date'] . '</td>';
59        echo '<td>' . $transactionsrRow['trans_expected_date'] . '</td>';
60        echo '<td>' . $transactionsrRow['trans_used'] . '</td>';
61        echo '<td><img src="uploads/' . $transactionsrRow['proofImage'] . '" alt="Proof Image" width="100"></td>';
62        echo '<td><img src="uploads/' . $transactionsrRow['proofreceipt'] . '" alt="Proof Receipt" width="100"></td>';
63        echo '<td><img src="uploads/' . $transactionsrRow['prooffile'] . '" alt="Proof File" width="100"></td>';
64        echo '<td>' . $transactionsrRow['proofdescri'] . '</td>' ;
65        echo '<td>';
66        echo '<form action="display_UpdateTrans.php" method="POST">';
67        echo '<input type="hidden" name="trans_id" value="' . $transactionsrRow['trans_id'] . '">';
68        echo '<button type="submit" name="Update" style="color: blue !important;">Update</button>';
69        echo '</form>';
70        echo '</td>';
71        echo '</tr>';
72        $_SESSION['trans_id'] =$transactionsrRow['trans_id'];
```

Figure 149 Admin Transaction page source code.

The Tracking Box page is an important component of the admin interface, providing administrators with the ability to track and monitor donations associated with the organization's operations. This page serves as a centralized hub for managing the delivery processes. Within the Tracking Box page, administrators can see the tracking numbers or codes associated with specific Donations. These tracking numbers are typically provided by the receipt generator function. Once the tracking number is entered, the system

retrieves and displays real-time updates and status information related to the tracking number information. The page offers a user-friendly interface that presents essential details about each tracked donation, such as the date of the donation and the transaction id which used for this tracking number, the number of boxes used for every donation from the donor, and more.



Tracking BOX Page

Main Page User List Donation Request Registration Request Transactions Tracking BOX Logout

BOX ID	Donation ID	Receipt ID	Receipt Amount	User name	Number of Box Used	Box Start	Box End	The Last BoxID Uesd	Box Amount	Current Amount
21	FoodForYemen	YENX8W6V4B	20	mane	2	1	2	20	66000	20
22	FoodForYemen	TKNHG2UVES	40	mane	4	3	6	21	66000	60
23	FoodForYemen	BSUHMD5D4R	30	mane	3	7	9	22	66000	90
24	FoodForYemen	S2AD7X84MJ	70	mane	7	10	16	23	66000	160
25	FoodForYemen	0YHW99UPBQ	20	mane	2	17	18	24	66000	180
26	FoodForYemen	BHPP65E96M	10	mane	1	19	19	25	66000	190
27	FoodForYemen	ZY08TPNUI7	90	mane	9	20	28	26	66000	280
28	FoodForYemen	ET6S4MAV29	60		6	29	34	27	66000	340
29	FoodForYemen	RXXDFCXHVZ	80		8	35	42	28	66000	420
30	FoodForYemen	N8OOAI3F4B	110	mane	11	43	53	29	66000	530
31	FoodForYemen	3AXHHA5U2G	130	mane	13	54	66	30	66000	660

© 2023 WORLDDONORS. All rights reserved

Figure 150 Admin Tracking Box page.

```
43              <th>Donation ID</th>
44              <th>Receipt ID</th>
45              <th>Receipt Amount</th>
46              <th>User name</th>
47              <th>Number of Box Used</th>
48              <th>Box Start</th>
49              <th>Box End</th>
50              <th>The Last BoxID Uesd</th>
51              <th>Box Amount</th>
52              <th>Current Amount</th>
53              <th>Donation Date</th>
54          </tr>
55          <?php foreach ($donations as $donation) : ?>
56              <tr>
57                  <td><?php echo $donation['boxID']; ?></td>
58                  <td><?php echo $donation['DonationID']; ?></td>
59                  <td><?php echo $donation['receipt_ID']; ?></td>
60                  <td><?php echo $donation['receipt_amount']; ?></td>
61                  <td><?php echo $donation['User']; ?></td>
62                  <td><?php echo $donation['box_used']; ?></td>
63                  <td><?php echo $donation['box_start']; ?></td>
64                  <td><?php echo $donation['box_end']; ?></td>
65                  <td><?php echo $donation['previous_box_ID']; ?></td>
66                  <td><?php echo $donation['box_amount']; ?></td>
```

Figure 151 Tracking Box page source code.

4.3.6 Controller of the PHP connection

Controller file acts as a bridge between the front-end user interface and the back-end logic of the application. It contains the necessary functions and methods to handle various actions and requests from the pages. For example, in the User List page, the controller file may include functions to retrieve the list of registered users from the database and pass it to the page for display. It can also have functions to perform actions such as deleting a user or updating their information based on user interactions.

In the Donation Request page, the controller file can handle incoming donation requests by receiving the form data, validating it, and storing it in the appropriate database table. It may also include functions to retrieve and display the pending donation requests to administrators, allowing them to review and take necessary actions. Similarly, the Registration Request page's controller file can handle new user registration requests by receiving the form data, validating it, and processing the request. It may include functions to approve or reject registration requests based on certain criteria or administrator decision-making.

The Transaction page's controller file can manage financial transactions by handling payment gateway integrations, recording transaction details, and updating relevant database tables. It can also include functions to retrieve and display transaction records, allowing administrators to track and monitor financial activities within the organization.

In the Tracking Box page, the controller file can communicate with external APIs or services to retrieve real-time tracking information based on the tracking numbers entered by administrators. It can process the data received and update the status of donations within the application.

Overall, the controller file acts as a central hub for handling data and requests from the pages, implementing the necessary logic and operations to ensure smooth functionality and efficient communication between the front-end interface and the back-end system.

```
18
19  //Organization Donation ID live checking
20
21  if(isset($_POST['livedonation'])) {
22      $livedonation = $_POST['livedonation'];
23      $query = "SELECT * FROM donations WHERE donation_id='$livedonation'";
24      $liveresult = mysqli_query($con, $query);
25      $count = mysqli_num_rows($liveresult);
26      if($count > 0) {
27          echo "<span style='color:red'> Sorry Donation ID already exists .</span>";
28          echo "<script>$('#org_RequestDonation').prop('disabled',true);</script>";
29      } else {
30          echo "<span style='color:green'> Donation ID is available  .</span>";
31          echo "<script>$('#org_RequestDonation').prop('disabled',false);</script>";
32      }
33  }
34
```

Figure 152 Organization Donation ID live checking.

```php
//Donor ID live checking

if(isset($_POST['liveidname'])) {
    $liveidname = $_POST['liveidname'];
    $query = "SELECT * FROM donor WHERE idname='$liveidname'";
    $liveresult = mysqli_query($con, $query);
    $count = mysqli_num_rows($liveresult);
    if($count > 0) {
       echo "<span style='color:red'> Sorry User already exists .</span>";
        echo "<script>$('#don_signup').prop('disabled',true);</script>";
    } else {
        echo "<span style='color:green'> User available for Registration .</span>";
        echo "<script>$('#don_signup').prop('disabled',false);</script>";
    }
}

//Organization Id live checking
if(isset($_POST['oliveidname'])) {
    $oliveidname = $_POST['oliveidname'];
    $query = "SELECT * FROM organization WHERE idname='$oliveidname'";
    $oliveidname = mysqli_query($con, $query);
    $count = mysqli_num_rows($oliveidname);
    if($count > 0) {
       echo "<span style='color:red'> Sorry Organization already exists .</span>";
        echo "<script>$('#org_Signup').prop('disabled',true);</script>";
    } else {
        echo "<span style='color:green'> Organization available for Registration .</span>";
        echo "<script>$('#org_Signup').prop('disabled',false);</script>";
    }
}
```

Figure 153 Donor and Organization Id live checking.

```php
//if user signup button for Donor

if(isset($_POST['don_signup'])){
    $idname = mysqli_real_escape_string($con, $_POST['liveidname']);
    $Fname = mysqli_real_escape_string($con, $_POST['Fname']);
    $Lname = mysqli_real_escape_string($con, $_POST['Lname']);
    $email = mysqli_real_escape_string($con, $_POST['email']);
    $password = mysqli_real_escape_string($con, $_POST['password']);
    $cpassword = mysqli_real_escape_string($con, $_POST['cpassword']);
    if($password == $cpassword){
        $idname_check = "SELECT * FROM donor WHERE idname = '$idname'";
        $res1 = mysqli_query($con, $idname_check);
        if(mysqli_num_rows($res1) === 0){
            $email_check = "SELECT * FROM donor WHERE email = '$email'";
            $res2 = mysqli_query($con, $email_check);
            if(mysqli_num_rows($res2) === 0){
                    $insert_data = "INSERT INTO donor (idname, Fname, Lname, email, password)
                                    values('$idname', '$Fname', '$Lname', '$email', '$password')";
                    $data_check = mysqli_query($con, $insert_data);
                    header("Location: login.php");
            }else{
                header("Location: Donor/Signup.php?error=Email that you have entered is already used!");
                exit();
            }
        }else{
            header("Location: Donor/Signup.php?error=ID Name that you have entered is already taken!");
            exit();
        }
    }else{
        header("Location: Donor/Signup.php?error=Confirm password not matched!");
        exit();
    }
}
```

Figure 154 if user signup with the button for Donor.

controler.php

```php
//if user signup button for Organization

    if(isset($_POST['org_Signup'])){
        $idname = mysqli_real_escape_string($con, $_POST['oliveidname']);
        $Funds_method = mysqli_real_escape_string($con, $_POST['Funds_method']);
        $Org_name = mysqli_real_escape_string($con, $_POST['Org_name']);
        $Org_country = mysqli_real_escape_string($con, $_POST['Org_country']);
        $Org_target_area = mysqli_real_escape_string($con, $_POST['Org_target_area']);
        $email = mysqli_real_escape_string($con, $_POST['Org_email']);
        $password = mysqli_real_escape_string($con, $_POST['password']);
        $cpassword = mysqli_real_escape_string($con, $_POST['cpassword']);
        $Org_owner = mysqli_real_escape_string($con, $_POST['Org_owner']);

        if($password == $cpassword){

            $Org_IDname_check = "SELECT * FROM Organization WHERE idname = '$idname'";
            $res = mysqli_query($con, $Org_IDname_check);
            if(mysqli_num_rows($res) === 0){

                $email_check = "SELECT * FROM Organization WHERE email = '$email'";
                $res = mysqli_query($con, $email_check);
                if(mysqli_num_rows($res) === 0){

                    $insert_data = "INSERT INTO Organization (idname,  Funds_method,  Org_name,  Org_country,  Org_target_area,  email,  p
                    values('$idname','$Funds_method','$Org_name','$Org_country','$Org_target_area','$email','$password','$Org_owner')";
                            $data_check = mysqli_query($con, $insert_data);
                    header("Location: login.php");

                }else{
                    header("Location: Organization/OrgSignup.php?error=Email that you have entered is already used!");
                    exit();
                }
            }else{
                header("Location: Organization/OrgSignup.php?error=ID Name that you have entered is already taken!");
                exit();
            }
```

Figure 155 if user signup button for Organization.

controler.php

```php
//Send the donation request

if(isset($_POST['org_RequestDonation'])){

    $image = $_FILES['Donationimage']['name'];  // Get the image file name
$temp = $_FILES['Donationimage']['tmp_name'];  // Get the temporary file path

$destination = 'uploads/' . $image;  // Set the destination path

if (move_uploaded_file($temp, $destination)) {

    $donation_id = mysqli_real_escape_string($con, $_POST['livedonation']);
     $organization = $_SESSION['idname'];
    $donation_goal_amount = mysqli_real_escape_string($con, $_POST['donation_goal']);
    $donation_title = mysqli_real_escape_string($con, $_POST['donation_title']);
    $donation_reason = mysqli_real_escape_string($con, $_POST['donation_reason']);
    $donation_story = mysqli_real_escape_string($con, $_POST['donation_story']);
    $donation_location = mysqli_real_escape_string($con, $_POST['donation_location']);
    $donation_bank_account = mysqli_real_escape_string($con, $_POST['donation_bank_account']);
    $donation_bank_swiftcode = mysqli_real_escape_string($con, $_POST['donation_bank_swiftcode']);
    $Activision_type = 'Not-confirm';

        $idname_check = "SELECT * FROM donations WHERE donation_id = '$donation_id'";
        $res1 = mysqli_query($con, $idname_check);
        if(mysqli_num_rows($res1) === 0){

                    $insert_data = "INSERT INTO donations (donation_id, idname,  Donation_goal_amount,   Donation_title,   Donation_reason,   Do
                    values('$donation_id', '$organization','$donation_goal_amount','$donation_title','$donation_reason','$donation_story','$dona
                            $data_check = mysqli_query($con, $insert_data);

                    header("Location: Organization/OrgDonations.php?sucsse= Request send successfully");
                    exit();
                    header("Location: Organization/OrgDonations.php");
```

Figure 156 Send the donation request .

controler.php

```php
// After Donor Donate the system add and update the database inclouding the tracking data and the Donation Box

if (isset($_POST['Donate'])) {
    $donation_id = mysqli_real_escape_string($con, $_POST['donation_id']);
    $total_payment = mysqli_real_escape_string($con, $_POST['total_payment']);
    $Don_idname =  $_SESSION['idname'];
    $address = mysqli_real_escape_string($con, $_POST['address']);
    $city = mysqli_real_escape_string($con, $_POST['city']);
    $state = mysqli_real_escape_string($con, $_POST['state']);
    $zip_code = mysqli_real_escape_string($con, $_POST['zip_code']);
    $bank_country = mysqli_real_escape_string($con, $_POST['bank_country']);
    $bank_name = mysqli_real_escape_string($con, $_POST['bank_name']);
    $bank_account_class = mysqli_real_escape_string($con, $_POST['bank_account_class']);
    $bank_account_name = mysqli_real_escape_string($con, $_POST['bank_account_name']);
    $bank_account_number = mysqli_real_escape_string($con, $_POST['bank_account_number']);
    $passport = mysqli_real_escape_string($con, $_POST['passport']);
    $user_type = mysqli_real_escape_string($con, $_POST['option']);

    // Generate a unique tracking number
    function generateTrackingNumber($length = 10) {
        $characters = '0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ';
        $trackingNumber = '';

        for ($i = 0; $i < $length; $i++) {
            $trackingNumber .= $characters[rand(0, strlen($characters) - 1)];
        }
        return $trackingNumber;
    }
    // Check if the tracking number already exists in the database
    function isTrackingNumberExists($trackingNumber, $con) {
        $trackingNumber = mysqli_real_escape_string($con, $trackingNumber);
        $query = "SELECT * FROM donatereceipt WHERE donate_id = '$trackingNumber'";
        $result = mysqli_query($con, $query);
        return mysqli_num_rows($result) > 0;
    }
```

Figure 157 Donor Donate the system adds and update the database.

```php
    // Generate and save the tracking number with the receipt data
    $trackingNumber = generateAndSaveTrackingNumber($con);

    // Prepare the insert query with the tracking number
    if ($user_type == 'Donor') {
    $insert_data = "INSERT INTO donatereceipt (donate_id ,donation_id, Don_idname, user_type , total_payment, address, city, state, zip_code, ba
                    VALUES ('$trackingNumber' , '$donation_id', '$Don_idname' , '$user_type' ,'$total_payment',  '$address', '$city', '$state',

        $data_check = mysqli_query($con, $insert_data);

    } elseif ($user_type == 'Ghost') {
        $insert_data = "INSERT INTO donatereceipt (donate_id ,donation_id, user_type , total_payment, address, city, state, zip_code, bank_count
        VALUES ('$trackingNumber' , '$donation_id' , '$user_type' ,'$total_payment',  '$address', '$city', '$state', '$zip_code', '$bank_country

        $data_check = mysqli_query($con, $insert_data);
    }

        if ($data_check) {
            // check the boxes fro tracking data
            $checkQuery = "SELECT Box_id FROM boxtracker WHERE Donation_used = '$donation_id'";
            $checkResult = mysqli_query($con, $checkQuery);

            if ($checkResult) {
                if (mysqli_num_rows($checkResult) > 0) {

                    // Donation_id already exists in boxtracker table
                    $row = mysqli_fetch_assoc($checkResult);
                    $boxId = $row['Box_id'];

                        $queryy = "SELECT current_box FROM boxtracker WHERE Box_id = $boxId";
                        $result = mysqli_query($con, $queryy);


                if (mysqli_num_rows($result) > 0) {
                    $row = mysqli_fetch_assoc($result);
```

Figure 158 Generate and save the tracking number.

controler.php

```php
if (isset($_POST['GhostDonate'])) {
    $donation_id = mysqli_real_escape_string($con, $_POST['donation_id']);
    $total_payment = mysqli_real_escape_string($con, $_POST['total_payment']);
    $address = mysqli_real_escape_string($con, $_POST['address']);
    $city = mysqli_real_escape_string($con, $_POST['city']);
    $state = mysqli_real_escape_string($con, $_POST['state']);
    $zip_code = mysqli_real_escape_string($con, $_POST['zip_code']);
    $bank_country = mysqli_real_escape_string($con, $_POST['bank_country']);
    $bank_name = mysqli_real_escape_string($con, $_POST['bank_name']);
    $bank_account_class = mysqli_real_escape_string($con, $_POST['bank_account_class']);
    $bank_account_name = mysqli_real_escape_string($con, $_POST['bank_account_name']);
    $bank_account_number = mysqli_real_escape_string($con, $_POST['bank_account_number']);
    $passport = mysqli_real_escape_string($con, $_POST['passport']);
    $user_type = 'GHOST';


    // Generate a unique tracking number
    function generateTrackingNumber($length = 10) {
        $characters = '0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ';
        $trackingNumber = '';

        for ($i = 0; $i < $length; $i++) {
            $trackingNumber .= $characters[rand(0, strlen($characters) - 1)];
        }

        return $trackingNumber;
    }

    // Check if the tracking number already exists in the database
    function isTrackingNumberExists($trackingNumber, $con) {
        $trackingNumber = mysqli_real_escape_string($con, $trackingNumber);
        $query = "SELECT * FROM donatereceipt WHERE donate_id = '$trackingNumber'";
        $result = mysqli_query($con, $query);

        return mysqli_num_rows($result) > 0;
    }
```

Figure 159 If non-user or Ghost user make the donate.

controler.php

```php
// When the Organization make a transaction

if (isset($_POST['SendTransaction'])) {
  // Retrieve form data
  $reason = $_POST['reason'];
  $expectedDay = $_POST['expected_day'];
  $amount = $_POST['amount'];
  $accountName = $_POST['account_name'];
  $accountNumber = $_POST['account_number'];
  $tittle = $_POST['tittle'];
  $trans_description = $_POST['description'];
  $organization = $_POST['organization_id'];
  $boxID = $_POST['box_id'];
  $trans_state = 'Not-proofed';
  $DonationID = $_POST['DonationID'];
  $current_amount = $_POST['current_amount'];

  $checkQuery = "SELECT amount_used FROM boxtracker WHERE Donation_used = '$DonationID'";
  $checkResult = mysqli_query($con, $checkQuery);

  if ($checkResult && mysqli_num_rows($checkResult) > 0) {
      $row = mysqli_fetch_assoc($checkResult);
      $amount_used = $row['amount_used'];

      // Calculate the remaining amount
      $remaining_amount = $current_amount - $amount_used;

      if ($remaining_amount >= $amount) {
  // Save data to the "transaction" table
  $insertQuery = "INSERT INTO transactions ( box_id, Org_name, donation_id ,  trans_title, trans_reson, trans_expected_date, trans_used,  trans_
                  VALUES ( '$boxID', '$Organization' , '$DonationID' , '$tittle', '$reason', '$expectedDay' , '$amount' , '$trans_description' ,

  $insertResult = mysqli_query($con, $insertQuery);

    if ($insertResult) {
        // Update the amount_used in the boxtracker table
```

Figure 160 Organization makes a transaction.

controler.php

```php
// Updat and proof the transaction :

if (isset($_POST['update_transaction'])) {
    // Retrieve the form data

    $transaction_id = $_POST['trans_id'];
    $_SESSION['trans_id'] = $transaction_id;
    $proof_description = $_POST['proof_description'];
    $proof_image = $_FILES['proof_image']['name'];
    $proof_receipt = $_FILES['proof_receipt']['name'];
    $proof_file = $_FILES['proof_file']['name'];
    $proof_image_temp = $_FILES['proof_image']['tmp_name'];
    $proof_receipt_temp = $_FILES['proof_receipt']['tmp_name'];
    $proof_file_temp = $_FILES['proof_file']['tmp_name'];
    $destination1 = 'uploads/' . $proof_image;
    $destination2 = 'uploads/' . $proof_receipt;
    $destination3 = 'uploads/' . $proof_file;
    if (move_uploaded_file($proof_image_temp, $destination1)) {
    } else {
        // Error uploading files
        $_SESSION['errorMessage'] = "Error uploading proof_image.";
        header("Location: Organization/display_UpdateTrans.php");
        exit();
    }
    if (move_uploaded_file($proof_receipt_temp, $destination2)) {
    } else {
        // Error uploading files
        $_SESSION['errorMessage'] = "Error uploading proof_receipt.";
        header("Location: Organization/display_UpdateTrans.php");
        exit();
    }
    if (move_uploaded_file($proof_file_temp, $destination3)) {
    } else {
        // Error uploading files
        $_SESSION['errorMessage'] = "Error uploading proof_file.";
        header("Location: Organization/display_UpdateTrans.php");
```

Figure 161 Update and proof the transaction.

controler.php

```php
        //if user click login button

if (isset($_POST['loginbut']) && isset($_POST['password'])) {
    function validate($data){
        $data = trim($data);
        $data = stripslashes($data);
        $data = htmlspecialchars($data);
        return $data;
    }
    $Loginidname = validate($_POST['Loginidname']);
    $pass = validate($_POST['password']);
    $level = validate($_POST['level']);

    if (empty($Loginidname)) {
        header("Location: login.php?error=User Name is required");
        exit();

    }else if(empty($pass)){
        header("Location: login.php?error=Password is required");
        exit();
    }else if(empty($level)){
        header("Location: login.php?error=user type is required");
        exit();
    }else{

        $sql = "SELECT * FROM $level WHERE idname='$Loginidname' AND password='$pass' ";
        $result = mysqli_query($con, $sql);
        if (mysqli_num_rows($result) === 1) {
            $row = mysqli_fetch_assoc($result);
            if ($level == 'Donor') {
                if ($row['idname'] === $Loginidname && $row['password'] === $pass ) {
                    echo "Logged in!";
                    $_SESSION['idname'] = $row['idname'];
                    $_SESSION['name'] = $row['name'];
                    $_SESSION['id'] = $row['id'];
                header("Location: Donor/DonationHome.php");
```

Figure 162 if user click login button.

controler.php

```php
// Display Donor Profile
function getDonorProfile($idname) {
    global $con;
    $sql = "SELECT idname, Fname, Lname, email, password, register_date FROM donor WHERE idname = '$idname'";
    $result = $con->query($sql);
    if ($result->num_rows > 0) {
        $row = $result->fetch_assoc();
        $donor = array(
            "idname" => $row["idname"],
            "Fname" => $row["Fname"],
            "Lname" => $row["Lname"],
            "email" => $row["email"],
            "password" => $row["password"],
            "register_date" => $row["register_date"]
        );
    } else {
        $donor = null;
    }
    return $donor;
}
// Display Organization  Profile
function getOrganizationProfile($idname) {
    global $con;
    $sql = "SELECT idname, Funds_method, Org_name, Org_country, Org_target_area,
                   email, Org_owner, Org_bankname, Org_bank_account_no, Org_bank_swiftcode,
                   Org_register_date , password FROM Organization WHERE idname = '$idname'";
    $result = $con->query($sql);
    if ($result->num_rows > 0) {
        $row = $result->fetch_assoc();
            $Organization = array(
                "idname" => $row["idname"],
                "email" => $row["email"],
                "password" => $row["password"],
                "Funds_method" => $row["Funds_method"],
                "Org_name" => $row["Org_name"],
                "Org_country" => $row["Org_country"],
                "Org_target_area" => $row["Org_target_area"],
```

Figure 163 Display Donor and Organization Profile.

controler.php

```php
    // Admin User List Search button


if (mysqli_connect_errno()) {
  echo "Failed to connect to MySQL: " . mysqli_connect_error();
  exit();
}

if (isset($_GET['donorSearch'])) {
  $donorSearch = $_GET['donorSearch'];

  $donorQuery = "SELECT * FROM donor WHERE idname LIKE '%$donorSearch%' OR Fname LIKE '%$donorSearch%' OR Lname LIKE '%$donorSearch%'  OR email
  $donorResult = mysqli_query($con, $donorQuery);
} else {
  $donorQuery = "SELECT * FROM donor";
  $donorResult = mysqli_query($con, $donorQuery);
}

if (isset($_GET['orgSearch'])) {
  $orgSearch = $_GET['orgSearch'];

  $organizationQuery = "SELECT * FROM organization WHERE idname LIKE '%$orgSearch%' OR Org_name LIKE '%$orgSearch%' OR email LIKE '%$orgSearch%'
  $organizationResult = mysqli_query($con, $organizationQuery);
} else {
  $organizationQuery = "SELECT * FROM organization";
  $organizationResult = mysqli_query($con, $organizationQuery);
}
```

Figure 164 Admin User List Search button.

```php
// Confirm the register request from the organization
if (isset($_POST['Org_confirm'])) {
    $org_id = $_POST['org_id'];
    $updateQuery = "UPDATE organization SET login_status = 'confirmed' WHERE idname = '$org_id'";
    $updateResult = mysqli_query($con, $updateQuery);

    if ($updateResult) {
      header("Location: Admin/AdminRegistration.php?success=The Organization has been confirmed successfully.");
      exit();
    } else {
      header("Location: Admin/AdminRegistration.php?error=Failed to confirm the Organization. Please try again.");
      exit();
    }
  }

  // Dismiss the register request from the organization
  if (isset($_POST['Org_dismiss'])) {
    $org_id = $_POST['org_id'];
    $deleteQuery = "DELETE FROM organization WHERE idname = '$org_id'";
    $deleteResult = mysqli_query($con, $deleteQuery);

    if ($deleteResult) {
      header("Location: Admin/AdminRegistration.php?success=The Organization has been dismissed successfully.");
      exit();
    } else {
      header("Location: Admin/AdminRegistration.php?error=Failed to dismiss the Organization. Please try again.");
      exit();
    }
  }
```

Figure 165 The confirm and dismiss organization registration.

4.3.7 The Tracking Part

When the organization uses the transaction, the system checks the amount to see if it is available in the donation box or not if yes, the system accepts the transaction and starts many steps to update and save the changes of the database. Adding to that, it checks from the first box of the donation which saved in the Tracker Box as a reverence, then it checks by order of the box id from the first donate until the amount of the transaction become equal to 0 which stop the loop that require to check the boxes.

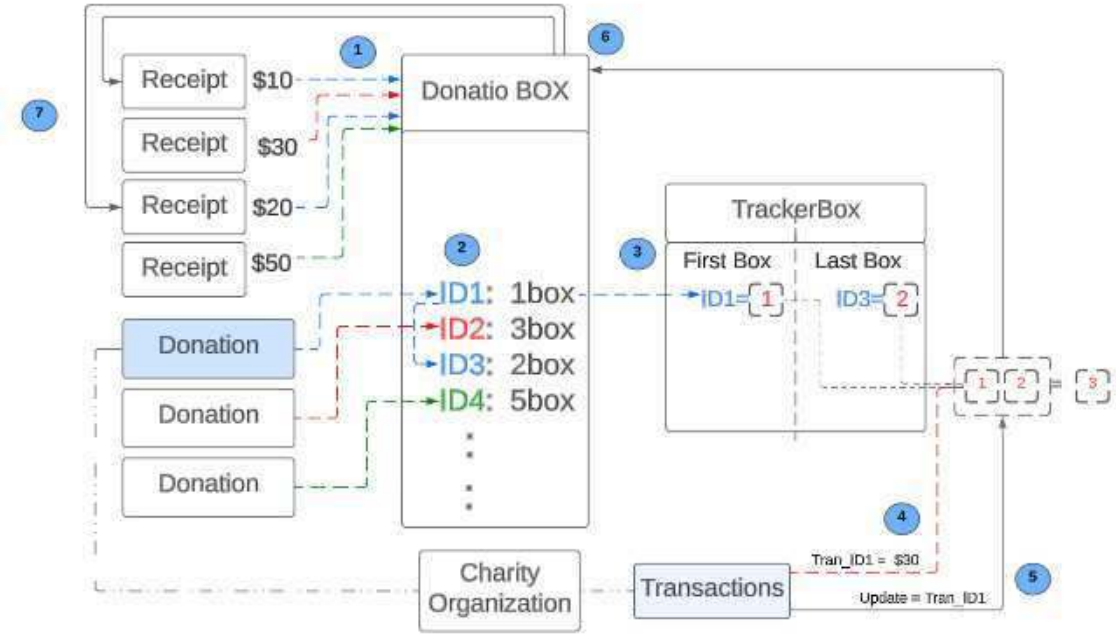


Figure 166 A general explanation of how the tracking done in the system.

Tracker_BOX

Box_id	current_Box	Donation_used	F_box	current_Trans	amount_used
4	43	FoodForYemen	3	1	200

Donation_BOX

BoxID	Donation_ID	ReceiptID	Amount	UserID	No.Box	Start	End	LastBoxID	Goal	LiveAmount
21	FoodForYemen	YENX8W6V4B	20	MANEA	2	1	2	20	60,000	20
34	FoodForYemen	TKNHG2UVES	30	MANEA	4	3	6	21	60,000	60
46	FoodForYemen	BSUHMD54R	40	Ghost	3	7	9	34	60,000	90

Figure 167 The flow of the Donation box.

When the organization make the update of the transaction, the id of the transaction already save with the receipt information so as long there is an update, the receipt get the update so when the Donor use the tracking number , the system can check the transaction data if there are any update to display the information to the Donor.

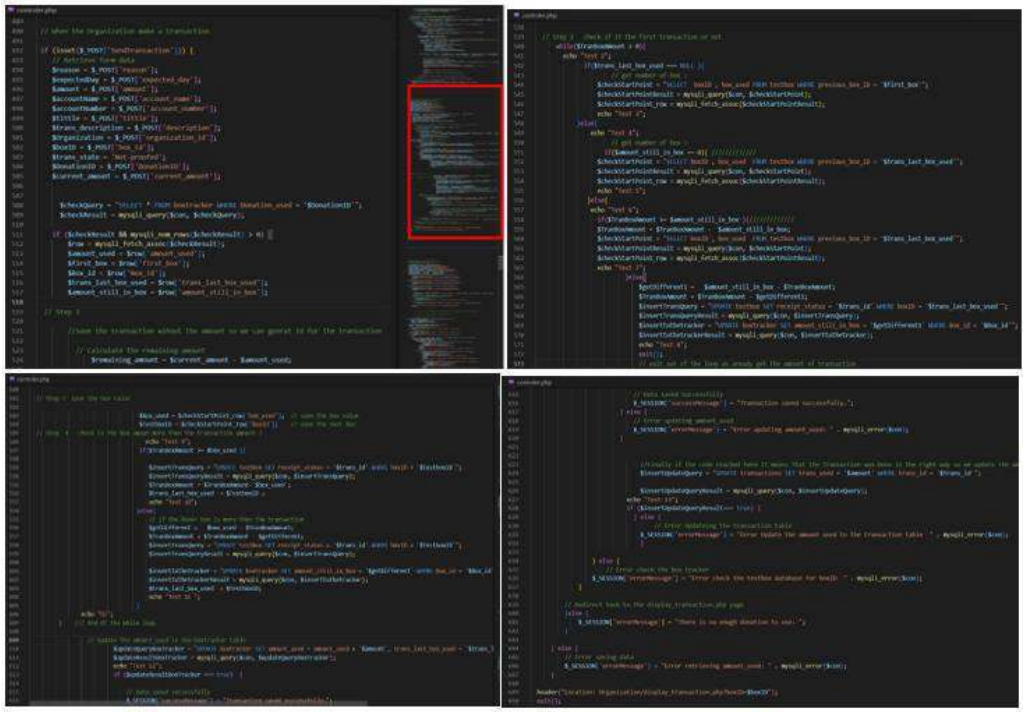


Figure 168 The Tracking transaction source code from the controller file.

4.3.8 Realtime Database Setup

Realtime Database Setup refers to the process of setting up a database that can handle real-time data synchronization between the client and the server. In the context of web development, this is particularly important for applications that require instant updates, such as chat applications or social media platforms. For the WorldDonors web application, the Realtime Database Setup involves creating and configuring a database that can store and manage information related to donors, organizations, and donations. This includes setting up tables and fields to store user information, as well as configuring permissions to ensure that only authorized users can access and modify the database.

To achieve real-time data synchronization, the application uses a combination of JavaScript and PHP to send and retrieve data from the database. When a user enters new information or makes changes to their profile, the database is updated in real-time, and the changes are reflected across all devices and platforms.

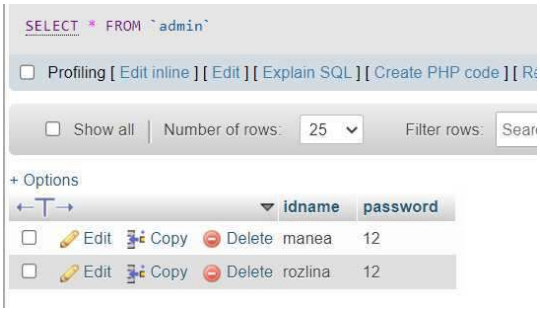


Figure 169 Admin table.

Figure 170 Donor Table.

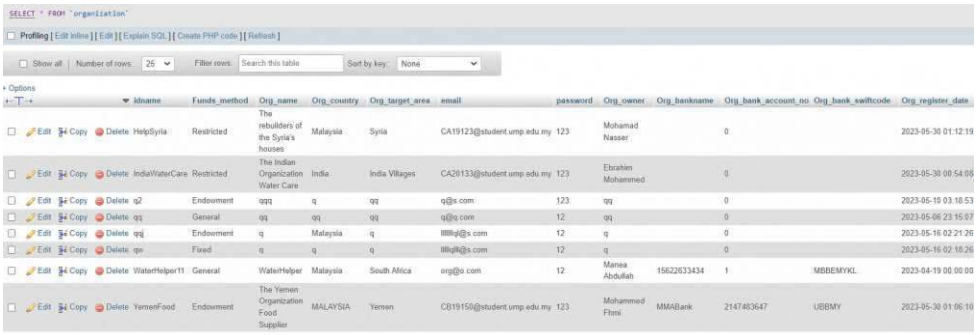


Figure 171 Organization table.

Figure 172 Donations table.

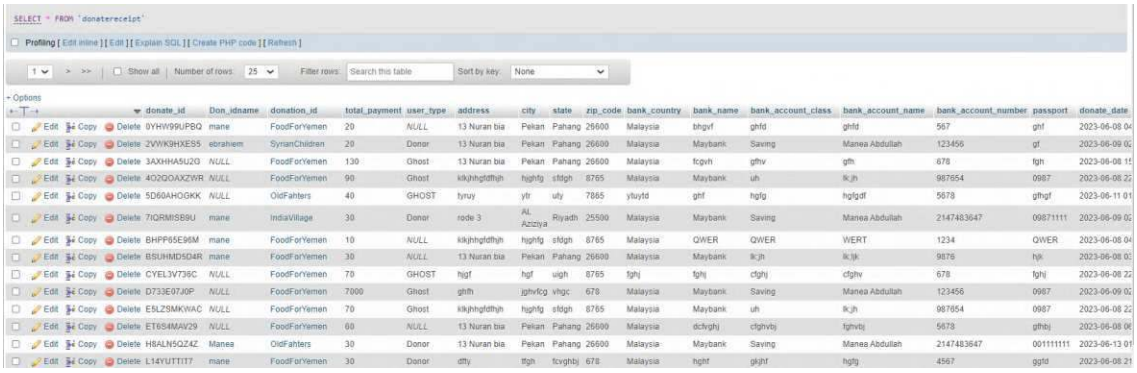
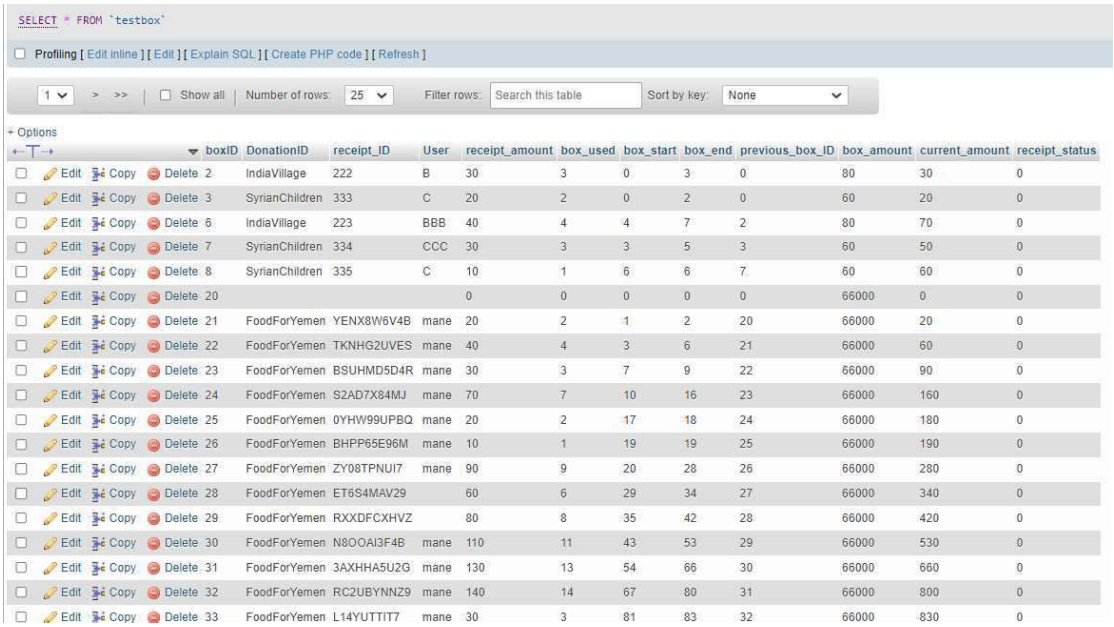


Figure 173 Donations Receipts table.



SELECT * FROM `testbox`

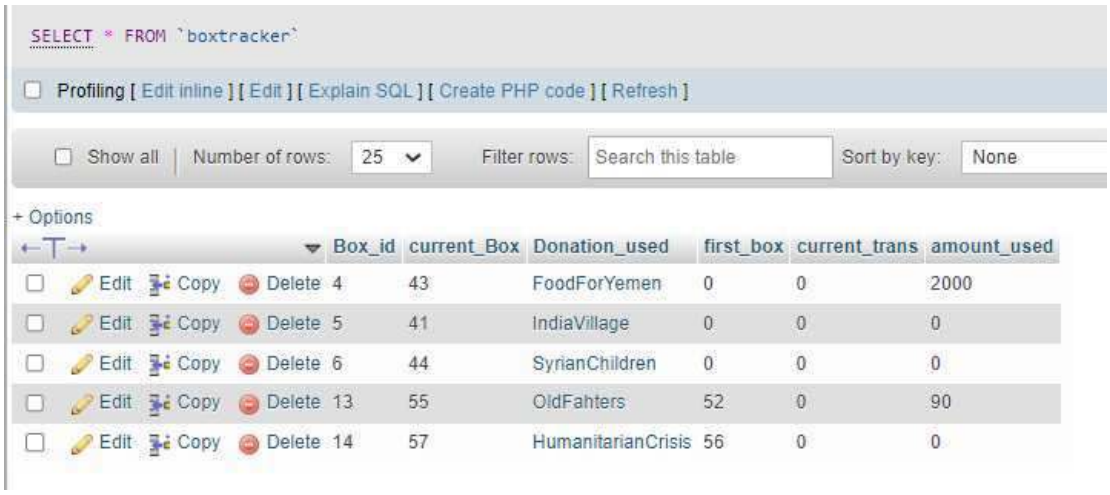
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

1 > >> | Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	boxID	DonationID	receipt_ID	User	receipt_amount	box_used	box_start	box_end	previous_box_ID	box_amount	current_amount	receipt_status
Edit Copy Delete	2	IndiaVillage	222	B	30	3	0	3	0	80	30	0
Edit Copy Delete	3	SyrianChildren	333	C	20	2	0	2	0	60	20	0
Edit Copy Delete	6	IndiaVillage	223	BBB	40	4	4	7	2	80	70	0
Edit Copy Delete	7	SyrianChildren	334	CCC	30	3	3	5	3	60	50	0
Edit Copy Delete	8	SyrianChildren	335	C	10	1	6	6	7	60	60	0
Edit Copy Delete	20				0	0	0	0	0	66000	0	0
Edit Copy Delete	21	FoodForYemen	YENX8W6V4B	mane	20	2	1	2	20	66000	20	0
Edit Copy Delete	22	FoodForYemen	TKNHG2UVES	mane	40	4	3	6	21	66000	60	0
Edit Copy Delete	23	FoodForYemen	BSUHMD5D4R	mane	30	3	7	9	22	66000	90	0
Edit Copy Delete	24	FoodForYemen	S2AD7X84MJ	mane	70	7	10	16	23	66000	160	0
Edit Copy Delete	25	FoodForYemen	0YHW99UPBQ	mane	20	2	17	18	24	66000	180	0
Edit Copy Delete	26	FoodForYemen	BHPP65E96M	mane	10	1	19	19	25	66000	190	0
Edit Copy Delete	27	FoodForYemen	ZY08TPNUI7	mane	90	9	20	28	26	66000	280	0
Edit Copy Delete	28	FoodForYemen	ET6S4MAV29		60	6	29	34	27	66000	340	0
Edit Copy Delete	29	FoodForYemen	RXXDFCXHVZ		80	8	35	42	28	66000	420	0
Edit Copy Delete	30	FoodForYemen	N8OOAI3F4B	mane	110	11	43	53	29	66000	530	0
Edit Copy Delete	31	FoodForYemen	3AXHHA5U2G	mane	130	13	54	66	30	66000	660	0
Edit Copy Delete	32	FoodForYemen	RC2UBYNNZ9	mane	140	14	67	80	31	66000	800	0
Edit Copy Delete	33	FoodForYemen	L14YUTTIT7	mane	30	3	81	83	32	66000	830	0

Figure 174 The test or the donation box table.



SELECT * FROM `boxtracker`

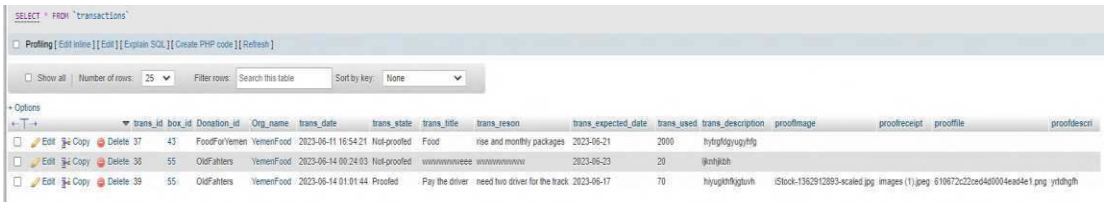
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	Box_id	current_Box	Donation_used	first_box	current_trans	amount_used
Edit Copy Delete	4	43	FoodForYemen	0	0	2000
Edit Copy Delete	5	41	IndiaVillage	0	0	0
Edit Copy Delete	6	44	SyrianChildren	0	0	0
Edit Copy Delete	13	55	OldFahters	52	0	90
Edit Copy Delete	14	57	HumanitarianCrisis	56	0	0

Figure 175 The tracking box table.



SELECT * FROM `transactions`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	trans_id	box_id	Donation_id	Org_name	trans_date	trans_state	trans_title	trans_reson	trans_expected_date	trans_used	trans_description	proofimage	proofreceipt	prooffile	proofdescri
Edit Copy Delete	37	43	FoodForYemen	YemenFood	2023-06-11 16:54:21	Not-proofed	Food	rise and monthly packages	2023-06-21	2000	hyfgfdgyugyhfg				
Edit Copy Delete	38	55	OldFahters	YemenFood	2023-06-14 00:24:03	Not-proofed	wwwwwwwwe	wwwwwwww	2023-06-23	20	jknhjkbh				
Edit Copy Delete	39	55	OldFahters	YemenFood	2023-06-14 01:01:44	Proofed	Pay the driver	need two driver for the track	2023-06-17	70	hiyugkhfkgtuvh	iStock-1362912893-scaled.jpg	images (1).jpeg	610672c22ced4d0004ead4e1.png	yrtdhgfh

Figure 176 Transactions table.

4.4 Testing

In the final stages of development, the WorldDonors tracking system will undergo comprehensive testing to ensure its usability and effectiveness. This testing phase includes the User Acceptance Test (UAT) and Usability Test, which gather feedback from various user groups, including public users/Ghost-Users, donors, and organizations.

The UAT focuses specifically on the system's main functionalities and core features. By evaluating its performance against primary objectives, the UAT provides valuable insights into functionality, user experience, and alignment with user requirements. Real-world scenarios and test cases are executed to assess the system's usability, intuitive navigation, responsiveness, and overall user satisfaction. Feedback collected during the UAT helps identify areas for improvement and refine the system before deployment.

XAMPP serves as the local host environment for conducting UAT and usability testing, ensuring a controlled setup for performance assessment, bug identification, and seamless integration. Thorough testing, emphasizing the system's main goals, allows fine-tuning to meet user needs effectively. The UAT and usability testing play a crucial role in delivering a robust, user-friendly WorldDonors tracking system that meets the expectations of all stakeholders involved.

✓ **Mohammad Nasser**	Test the Donor part	
✓ **Bandar Talal**	Test the Donor and Ghost part	
✓ **Ebrahim Mohammad**	Test the Organization part	
✓ **Ahmad Elwan**	Test the Organization part	
✓ **Mohammad Fahmi.**	Test the Admin Part	

All these testers are computer science students who possess a strong foundation in the field of software development and have a deep understanding of software requirements. They bring their technical expertise and knowledge to effectively evaluate and test the software. With their background in computer science, they are equipped to identify potential issues and provide valuable feedback to enhance the software's functionality and user experience. Their dedication and commitment to quality assurance ensure that the software meets the required standards and delivers a seamless user experience.

4.4.1 User Acceptance Test (UAT)

Module : Donor	Activities	Status of Work		Comments
		Yes	NO	
Registration	Register as a Donor with unique ID username			
Login	First Use a wrong password then the right one , for the first one the system must not allow to login for the second must allow to login.			
Forget password	Try to update the password by enter the user email and the system send an email have link which allow the user to update the password.			The user email did not get any email from the system.
Home page	Try to search for specific donation			
Check Donation data	Users click on the donation from the home page then the system display all the data of the donation with the images.			
Donate	Donate to the donation using any amount of donate, then must get a receipt with the tracking number and other information.			
Profile	See the user profile with the information.			
MyDonation	Donor use the MyDonation page to see all the donate that had been donated and display its information with the receipt data.			
Tracking	Donor try to check the donate status using the tracking number from the donate receipt.			
Ghost	Donate as a ghost			
Ghost-Track	Use the Ghost receipt to track the data.			
Log-out	Log out from the system			

This test has been performed by:

Name :Mohammad Nasser Signature :

ID: CA:19123

Date : 8/06/2023

Module : **Donor**	Activities	Status of Work		Comments
		Yes	NO	
Registration	Register as a Donor with unique ID username			
Login	First Use a wrong password then the right one , for the first one the system must not allow to login for the second must allow to login.			
Forget password	Try to update the password by enter the user email and the system send an email have link which allow the user to update the password.			The user email did not get any email from the system.
Home page	Try to search for specific donation			
Check Donation data	Users click on the donation from the home page then the system display all the data of the donation with the images.			
Donate	Donate to the donation using any amount of donate, then must get a receipt with the tracking number and other information.			
Profile	See the user profile with the information.			
MyDonation	Donor use the MyDonation page to see all the donate that had been donated and display its information with the receipt data.			
Tracking	Donor try to check the donate status using the tracking number from the donate receipt.			
Ghost	Donate as a ghost			
Ghost-Track	Use the Ghost receipt to track the data.			
Log-out	Log out from the system			

This test has been performed by:

Name : Bandar Talal Signature :

ID: CA20138

Date : 8/06/2023

Module <u>Organization</u>	**Activities**	**Status of Work**		**Comments**
		Yes	**NO**	
Registration	Register as a Organization with unique ID username and get the confirm form Admin,			
Login	Use a wrong password then the right one , for the first one the system must not allow to login for the second must allow to login.			
	Try login as Donor rather than Organization , system must stop the user from login.			
Forget password	Try to update the password by enter the user email and the system send an email have link which allow the user to update the password.			The user email did not get any email from the system.
Home page	Try to search for specific donation			
Send A donation request	Inter Donation page and fill in all the donation data then send to the system.			
See Donations	System displays all organization donations.			
Profile	Profile of organization with the information.			
Transaction	See the organization transaction.			
	Make a new transaction.			
Update Transaction	After making the transaction they can send the update proof of it.			
	The data used to track the donate and donor get the information.			
Log-out	Log out from the system			

This test has been performed by:

Name :Ebrahim Mohammad Signature :

ID: CA20133

Date : 9/06/2023

Module Organization	**Activities**	**Status of Work**		**Comments**
		Yes	**NO**	
Registration	Register as a Organization with unique ID username and get the confirm form Admin,			
Login	Use a wrong password then the right one , for the first one the system must not allow to login for the second must allow to login.			
	Try login as Donor rather than Organization , system must stop the user from login.			
Forget password	Try to update the password by enter the user email and the system send an email have link which allow the user to update the password.			The user email did not get any email from the system.
Home page	Try to search for specific donation			
Send A donation request	Inter Donation page and fill in all the donation data then send to the system.			
See Donations	System displays all organization donations.			
Profile	Profile of organization with the information.			
Transaction	See the organization transaction.			
	Make a new transaction.			
Update Transaction	After making the transaction they can send the update proof of it.			
	The data used to track the donate and donor get the information.			
Log-out	Log out from the system			

This test has been performed by:

Name : Ahmad Elwan Signature :

ID: CA18153

Date : 19/06/2023

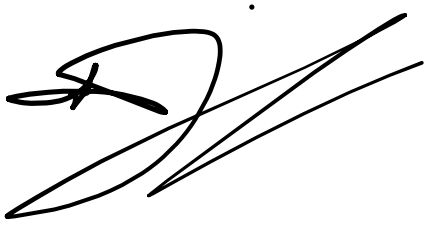
Module : ADMIN	Activities	Status of Work		Comments
		Yes	NO	
Login	Use a wrong password then the right one , for the first one the system must not allow to login for the second must allow to login.			
	Try login as Donor rather than Admin , system must stop the user from login.			
Home page	Try to search for specific donation			
Check the donation requests	All the Donation requests display in the page and can check the data for each of them by click on “Check” button.			
	Try to Dismiss or Confirm the request.			
User list	Try to search for user ID and edit his name.			
	Search for organization ID.			
Organization request.	See all the registration requests of the organization and check the information of it.			
	Confirm organization to register to system.			
Transaction	See the organization transaction and status.			
	Check the transaction flow with data.			
	Can see the receipt boxes for the transaction.			
Donation box flow	Admin can see all the boxes flow for the donation and its receipts.			The page does not request.
Log-out	Log out from the system			

This test has been performed by:

Name :Mohammad Fahmi Signature :

ID: CB19150

Date : 10/06/2023



4.5 Result And Discussion

Throughout the development process, comprehensive testing was conducted to evaluate the functionality and performance of the WorldDonors website. User Acceptance Testing (UAT) played a pivotal role in assessing whether the website's features and functionalities aligned with the intended objectives. The objective of UAT was to ensure that the website met the objective of the project, minimized critical defects, and provided an optimal user experience. Rigorous testing and validation were carried out on all system modules, covering various scenarios to identify potential errors or issues related to code, page links, and database connections. This meticulous testing approach was scheduled strategically toward the project's completion, allowing sufficient time to focus on testing and refining the system's functions. The insights gained from testing, user feedback, and the experiences of individuals who utilized the website provided valuable information for further analysis. The results of these evaluations and the feedback received contribute to the ongoing improvement and dedication of the WorldDonors project.

After a comprehensive analysis of the testing results and exploring the limitations encountered during the testing process. It also identifies potential areas for future development and enhancement of the WorldDonors website. Based on the feedback derived from the UAT, several areas of improvement were identified. For instance, the implementation of email notifications emerged as a valuable enhancement to ensure timely communication with users, providing them with essential updates and notifications. Furthermore, minor adjustments were noted to align the website more closely with the preferences and expectations of the target audience. For the Admin part and from the UAT we found that there were some pages not completed, so we decided to plan and spend some time to develop the page and connect it with the database to display its functions. Although time constraints posed challenges during the development phase, the overall functionality of the system was deemed effective, successfully delivering the desired information to donors through the tracking feature. The findings from the testing phase serve as valuable insights for refining and advancing the WorldDonors website, ensuring its continued growth and success in facilitating charitable endeavors.

There was a proposal to schedule a meeting with a prominent donation website, such as Yayasan UMP, to showcase the outcomes of the WorldDonors project and gather feedback from them. However, due to time constraints and the presence of some unfinished functions within the website, the meeting could not be finalized. Despite the missed opportunity, the intention behind the proposed meeting was to establish a platform for knowledge exchange and collaboration within the donation sector. The aim was to gather valuable insights and feedback from industry experts, enabling the WorldDonors project to benefit from their expertise and align with established best practices in the field.

4.6 Summary

The WorldDonors project was developed with the aim of enhancing the donation process and creating an online platform that enhances transparency, accountability, and convenience for donors, recipients, and charitable organizations. Throughout the development process, user acceptance testing played a vital role in ensuring the success and effectiveness of the project. The initial development phase focused on gathering user requirements and incorporating user feedback at every stage. The project team conducted surveys, interviews, and focus groups to understand the needs and expectations of potential users. This valuable input was used to shape the platform's functionalities and design.

Once the initial development was completed, user acceptance testing was conducted to evaluate the system's usability, functionality, and overall user experience. A diverse group of users, including donors, recipients, and charitable organizations, participated in the testing process. They were given specific scenarios and tasks to perform on the platform, allowing us to observe their interactions and gather feedback.

One of the key achievements of the project was the successful implementation of the donation tracking functionality. Donors could easily track their donations by entering the provided tracking number. The system accurately retrieved and displayed the donation details. This feature greatly enhanced transparency as donors could see how their contributions were being utilized by recipients. Receipt generation was a crucial element in ensuring transparency and compliance. The system automatically generated receipts for each donation made through the platform. These receipts included essential details such as the donation ID, date, total payment, and recipient information. This feature not only provided donors with a record of their contributions but also allowed charitable organizations to demonstrate accountability and financial transparency.

By focusing on transparency, accountability, and user experience, the project has achieved its goals and made a significant impact on the way people engage in charitable giving. The system's ability to track donations, generate receipts, and provide a user-friendly interface has created a positive and empowering experience for donors, recipients, and charitable organizations alike.

CHAPTER 5
CONCLUSION

5.1 Introduction

At the beginning of developing the website for our project, we encountered a significant challenge: determining the most suitable method for tracking donations. Tracking donations is a relatively uncommon practice in the field, and we recognized the importance of implementing an efficient and user-friendly tracking system to ensure transparency and accountability in the donation process. Our objective was to design and implement a tracking system that would be easy to use and provide donors with a seamless experience. The system wanted donors to be able to track their donations using a simple tracking number, without being burdened by the complexity of the system. Therefore, it was crucial for us to design a user-friendly interface that would hide the intricacies of the tracking system while delivering accurate and timely updates.

To accomplish this, we dedicated significant attention to the design phase of the project. We carefully examined existing systems and studied the methods used to track donations. This research provided valuable insights that guided our approach to developing an efficient and effective tracking system.

Also utilized a prototype that was developed in parallel with the Software Requirements Specification (SRS) and Software Design Document (SDD). This prototype allowed us to visualize and comprehend how the website and the tracking system would appear and function even before starting the actual development. A clear understanding of the project's requirements and the design concept provided us with a solid plan and facilitated a smooth flow of the project.

In this chapter, we will discuss the limitations and constraints encountered during the development of the tracking system, revisit the project objectives, and outline potential future work. By examining the challenges faced, we can gain insights into the decision-making process and the impact these factors had on the tracking system's functionality. We will evaluate the extent to which the system met the objectives and consider user feedback to gauge its effectiveness. Furthermore, we will explore possibilities for future enhancements and improvements, ensuring that the tracking system remains adaptable to evolving user requirements and technological advancements.

5.2 Limitation And Constraint

During the development of the tracking system, several limitations and constraints were encountered, impacting certain aspects of the project. One notable limitation was related to the implementation of payment functionality. Due to financial constraints, as the

project has been done by a student, integrating a robust and secure payment system posed a challenge. The complex nature of payment gateways and the associated costs made it impractical to develop a fully functional payment solution within the project's scope. To ensure the continues of the project, we assume that after the donor do the payment or donates, the system can generate the receipt which is not a real amount of money but a number that makes us sure about how the system and the functions work, so in future and after add the real payment method, we can know that everything work in the right way and nothing’s wrong for the functions and the tracking.

In addition to the payment-related constraints, the website design itself presented an area for improvement. While the website's design successfully catered to the primary objectives, incorporating the latest design methodologies could have enhanced its visual appeal and functionality. By leveraging newer design methods, such as responsive design and user-centered design principles, the website could have featured more dynamic and visually appealing pages. This would have not only provided a more immersive experience for users but also facilitated administrative tasks by offering advanced functionalities for the website's administrators.

Although these limitations and constraints influenced the implementation and functionality of the tracking system, they did not impede the project's overall success. Despite the challenges, the WorldDonors website achieved the desired final result and fulfilled its primary goal of providing a functional and user-friendly platform for donation tracking. The tracking system effectively captures and displays relevant information, allowing donors to monitor the progress of their contributions. While certain advanced transaction features were limited, the core functionality aligns with the central idea of the project, ensuring transparency and accountability in the donation process.

Moving forward, it is important to recognize these limitations and constraints as opportunities for future enhancements. By addressing the constraints related to payment processing and considering advancements in design methodologies, the WorldDonors website can be further optimized to provide an even more seamless and comprehensive donation experience. Such improvements would contribute to the project's long-term sustainability and ensure that the platform remains user-centric, efficient, and adaptable to the evolving needs of donors and charitable organizations.

5.3 Adding The International or Global Payment

5.3.1 Type of payment may consider.

To deployed on the internet and integrated with the bank's payment system, there are several considerations to ensure a seamless and global payment experience. Here are some suggestions:

Global Payment Gateway: To provide global payment capabilities, it is crucial to integrate with a reputable payment gateway that supports international transactions. The chosen payment gateway should have a wide range of supported currencies and be compliant with international security standards.

Secure Payment Protocols: Implement secure payment protocols such as SSL (Secure Socket Layer) or TLS (Transport Layer Security) to encrypt the communication between the application and the payment gateway. This ensures the confidentiality and integrity of sensitive payment information.

Multiple Payment Methods: Offer a variety of payment methods to cater to different users' preferences and global accessibility. This may include credit/debit cards, digital wallets (e.g., PayPal, Apple Pay, Google Pay), bank transfers, and other popular local payment options based on the target audience.

PCI Compliance: Ensure that the application complies with the Payment Card Industry Data Security Standard (PCI DSS) if it handles credit/debit card information directly. This standard ensures the secure handling, processing, and storage of cardholder data.

Payment APIs and Integration: Utilize the payment gateway's APIs (Application Programming Interfaces) to integrate the payment functionality into the application. The APIs should provide methods for initiating transactions, handling responses, and retrieving payment status. The payment gateway documentation should guide you on how to use these APIs effectively.

Error Handling and Transaction Status: Implement robust error handling mechanisms to handle various scenarios, such as failed transactions, network errors, and declined payments. Display clear error messages to users and ensure that the system accurately reflects the status of each transaction (e.g., pending, successful, or failed) for tracking purposes.

Testing and Sandbox Environment: Utilize the payment gateway's testing or sandbox environment during development and testing phases. This allows you to simulate transactions without incurring actual charges or impacting real financial systems. It helps ensure that the payment integration works correctly before deploying to the live environment.

Compliance with Legal and Regulatory Requirements: Research and adhere to any legal and regulatory requirements related to payment processing, both domestically and internationally. This includes compliance with anti-money laundering (AML) regulations, Know Your Customer (KYC) policies, and data protection laws.

When integrating the chosen payment method into the application, you will typically follow the payment gateway's documentation and guidelines. This involves incorporating the necessary code snippets, configuring API keys or tokens, and implementing the required client-side and server-side logic to initiate and handle payment transactions. It is important to thoroughly test the payment integration to ensure proper functionality and security. Consider conducting both unit tests and end-to-end tests to verify the payment flow from initiation to completion.

5.3.2 Code Modification Considerations

To modify the code to accommodate the payment and receipt tracking number, steps must consider:

Payment Integration: Identify the relevant sections of the code where the payment integration needs to be implemented. This typically includes capturing the payment details, initiating the transaction, and handling the payment response. Modify the code to integrate with the chosen payment gateway's API. This may involve making HTTP requests to the payment gateway's endpoints, passing the required parameters (e.g., amount, currency, payment method), and handling the response to determine the transaction status. Ensure that the code securely handles sensitive payment information, such as credit card details or user credentials. Follow best practices for data encryption, input validation, and secure storage of payment-related data.

Receipt Tracking Number: Determine where the receipt tracking number needs to be generated and displayed in the application. This could be after a successful payment transaction or as part of the donation confirmation process. Modify the code to generate a unique tracking number for each donation. This is achieved by using a combination of alphanumeric characters or an auto-incrementing identifier. However, the receipt ID also can use as the tracking number so when the bank gives the receipt which also have the ID number, this can be replaced for the tracking number, so donor can track their donation using the receipt ID number provided from the bank donor used to make to donate. Update the user interface to display the generated tracking number on the receipt or any relevant donation confirmation pages. Ensure that the tracking number is easily visible and understandable to the users. Lastly, if the new data need to modify, they can do this from the database used in the system and make sure they modify the code used the same data in the controller file.

5.4 Objective Revisited

i. **Study the existing website that focuses on donations:**

Extensive research and analysis were conducted to gain insights into the existing donation platforms, their features, and the tracking methods employed. By examining the methods used in similar fields, such as e-commerce and logistics, we expanded our understanding of effective tracking systems. This broadened perspective allowed us to identify best practices and adapt them to the unique requirements of the donation industry. Consequently, we were able to incorporate relevant and efficient tracking methodologies into the WorldDonors website.

ii. **Identify the method used in the donations website and the technological approach used for tracking donation systems:**

Through thorough investigation and examination of various systems, we gained a comprehensive understanding of the tracking methodologies employed in the donation industry. We explored diverse tracking mechanisms, including unique identifiers, transactional records, and real-time updates. By analyzing the strengths and limitations of these approaches, we were able to select the most suitable tracking method for the WorldDonors website. This objective was successfully fulfilled, enabling us to make informed decisions during the design and development phases.

iii. **Design and develop the website WorldDonors donation and upgrade it with the tracking system:**

Building upon our research findings, we embarked on the design and development process with a clear vision of creating an intuitive and user-friendly platform. The website was meticulously designed to provide a seamless and engaging donor experience, ensuring ease of use and accessibility. Additionally, the integration of a robust tracking system was a top priority, as it would contribute to transparency and accountability in the donation process. By leveraging our knowledge of effective tracking methodologies, we implemented a system that enables donors to effortlessly monitor the progress of their contributions. Both the website and the tracking system were successfully developed and deployed, aligning with the project's objectives.

5.5 Future Work

There are several areas where the WorldDonors project can be expanded and improved to enhance its functionality and impact. The following are some potential avenues for future work:

- To prevent duplicate entries in the database, the system ensures that each donor is restricted to a single account. Donors can register only once as a donor, ensuring that there are no repeated instances of the same donor in the system's database. This measure ensures data integrity and avoids any redundancy or confusion caused by multiple accounts for a single donor.

- Donate Plan Options: Offering recurring donation plans allows WorldDonors to provide donors with the flexibility to make ongoing contributions at regular intervals, ensuring a sustained impact over time. By implementing this feature, donors can effortlessly support their chosen causes through automated and consistent donations.

- Advanced Pages Design: Enhancing the website's page design through interactive elements, intuitive navigation, and visually captivating layouts enriches the user experience. By incorporating these advanced design techniques, WorldDonors can attract more users and create a seamless and engaging donation process that encourages greater participation and involvement.

- Integration of Social Sharing: By integrating social media sharing options, donors can easily spread the word about their contributions and encourage others to join the WorldDonors project. This amplifies the project's reach, raises awareness, and fosters a sense of community among donors, maximizing the potential for positive change.

- Enhanced Donor Engagement: A donor dashboard enables users to track their donation history, access impact reports, and receive updates, fostering transparency and donor connection. Gamification elements like milestones and challenges drive active donor participation.

- Partnerships and Collaborations: Collaborating with organizations, businesses, and influencers expands WorldDonors' reach and impact. Strategic alliances maximize effectiveness through joint campaigns and leveraging partner networks and resources. These partnerships generate greater support and resources, magnifying WorldDonors' positive impact.

5.5.1 Performance of the system

Ensuring the performance and efficiency of the deployed system is crucial for delivering a reliable and seamless user experience. To achieve this, it is important to implement various features that monitor and optimize the system's performance. Performance monitoring tools play a vital role in tracking key metrics such as response times, server load, and database performance. By analyzing these metrics, you can gain insights into the system's efficiency and identify any areas that require improvement or optimization. Regularly monitoring the system's performance allows for timely detection of any performance degradation or bottlenecks, enabling proactive measures to be taken.

In addition to performance monitoring, conducting load testing is essential to simulate high volumes of concurrent user activity and evaluate how the system handles increased load. By subjecting the system to realistic stress scenarios, load testing helps identify performance limitations, scalability issues, and potential areas for optimization. It provides valuable data on the system's performance under different load levels, enabling you to make informed decisions regarding infrastructure scaling, resource allocation, and code optimization.

Database optimization is another critical aspect of ensuring system efficiency. Analyzing the database schema, query execution plans, and indexing strategies can help identify slow-running queries and inefficient database operations. By optimizing database queries and indexes, you can improve data retrieval and storage performance, resulting in faster response times and a more efficient system overall. Techniques such as query optimization, denormalization, caching, and indexing can significantly enhance database performance and reduce the system's overall load.

By incorporating performance monitoring, load testing, and database optimization features into the WorldDonors project, you can continuously assess and optimize the system's performance. Regular monitoring and analysis will enable you to proactively address performance issues, improve response times, and ensure scalability as user demand grows. This will contribute to a reliable and high-performing system, ultimately delivering a smooth and satisfactory user experience. Additionally, by addressing the areas of future work, such as preventing duplicate entries, implementing advanced page design, offering diversified donation plans, integrating social sharing capabilities, enhancing donor engagement features, and establishing strategic partnerships, the WorldDonors project can evolve and create a more engaging and effective platform. These improvements will help connect donors with meaningful causes worldwide, maximizing the impact and success of the project.

REFERENCES

[1]. (n.d.). *Doublethedonation*. Retrieved from Doublethedonation.com: https://doublethedonation.com/nonprofit-fundraising-statistics/

[2]. Almaghrabi, A., & Alhogail, A. (2022). Blockchain-based donations traceability framework. *Journal of King Saud University-Computer and Information Sciences*, *34*(10), 9442-9454.

[3] Husni, H., Putro, S. S., Negara, Y. D. P., Yuana, N. U., & Herawati, S. (2021). Development of a Web-Based “Let's Donate” Fundraising Information System. In *E3S Web of Conferences* (Vol. 328, p. 04014). EDP Sciences.

[4] Weerawarna, N. T., Abeysiri, L., & Madhushan, A. (2017, January). ‘GAIMS’—Gamified aid information management system to connect donor and requester. In *2017 6th National Conference on Technology and Management (NCTM)* (pp. 105-110). IEEE.

[5] Shaheen, E., Hamed, M. A., Zaghloul, W., Al Mostafa, E., El Sharkawy, A., Mahmoud, A., ... & Attiya, G. (2021, July). A Track Donation System Using Blockchain. In *2021 International Conference on Electronic Engineering (ICEEM)* (pp. 1-7). IEEE.

[6] Singh, A., Rajak, R., Mistry, H., & Raut, P. (2020, June). Aid, charity and donation tracking system using blockchain. In *2020 4th International Conference on Trends in Electronics and Informatics (ICOEI)(48184)* (pp. 457-462). IEEE.

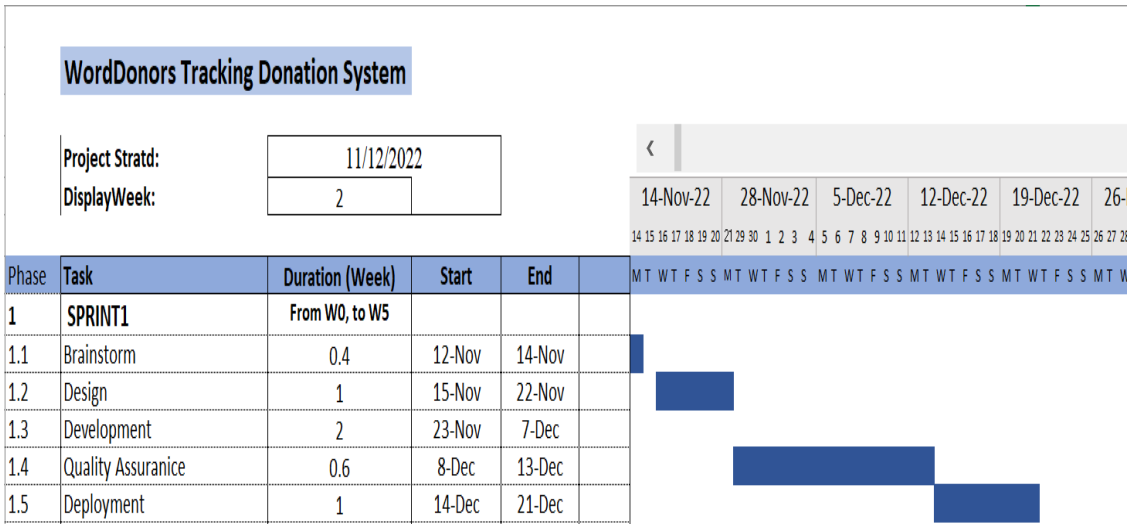
[7] Lanerolle, P., Rathnayaka, S., Rupasinghe, H., Madhushanka, S., Samarakoon, U., & Kasthurirathne, D. (2018, October). Donate. lk: A smart donation handling system. In *2018 National Information Technology Conference (NITC)* (pp. 1-6). IEEE.

[8] McMaster, M. G., & Dreyer, M. G. (2010). *U.S. Patent Application No. 12/642,256*.

[9] Saleh, H., Avdoshin, S., & Dzhonov, A. (2019, November). Platform for tracking donations of charitable foundations based on blockchain technology. In *2019 Actual Problems of Systems and Software Engineering (APSSE)* (pp. 182-187). IEEE.

[10] Zakaria, N. F. Z., Abidin, Z. Z., Zawawi, M. A. A., & Shuhada, S. N. (2020). Bloodbuddy: a Tracking System for Blood Donor Using GPS. *Journal of Engineering, Technology, and Applied Science*, *2*(2), 86-102.

APPENDIX A
SAMPLE APPENDIX 1

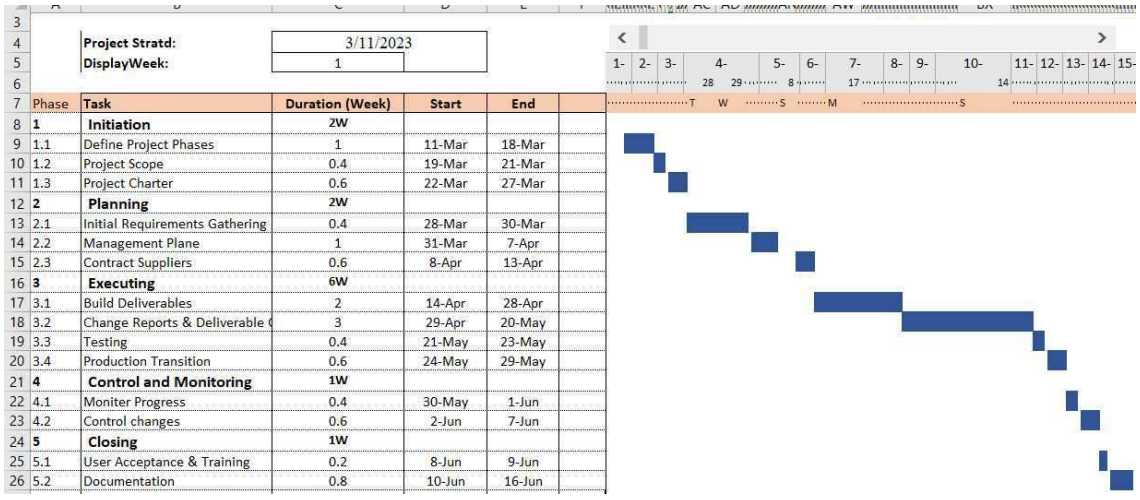


WordDonors Tracking Donation System

Project Stratd:	11/12/2022
DisplayWeek:	2

Phase	Task	Duration (Week)	Start	End
1	SPRINT1	From W0, to W5		
1.1	Brainstorm	0.4	12-Nov	14-Nov
1.2	Design	1	15-Nov	22-Nov
1.3	Development	2	23-Nov	7-Dec
1.4	Quality Assuranice	0.6	8-Dec	13-Dec
1.5	Deployment	1	14-Dec	21-Dec

Figure 177:Gantt Chart For PSM1



Project Stratd:	3/11/2023
DisplayWeek:	1

Phase	Task	Duration (Week)	Start	End
1	Initiation	2W		
1.1	Define Project Phases	1	11-Mar	18-Mar
1.2	Project Scope	0.4	19-Mar	21-Mar
1.3	Project Charter	0.6	22-Mar	27-Mar
2	Planning	2W		
2.1	Initial Requirements Gathering	0.4	28-Mar	30-Mar
2.2	Management Plane	1	31-Mar	7-Apr
2.3	Contract Suppliers	0.6	8-Apr	13-Apr
3	Executing	6W		
3.1	Build Deliverables	2	14-Apr	28-Apr
3.2	Change Reports & Deliverable	3	29-Apr	20-May
3.3	Testing	0.4	21-May	23-May
3.4	Production Transition	0.6	24-May	29-May
4	Control and Monitoring	1W		
4.1	Moniter Progress	0.4	30-May	1-Jun
4.2	Control changes	0.6	2-Jun	7-Jun
5	Closing	1W		
5.1	User Acceptance & Training	0.2	8-Jun	9-Jun
5.2	Documentation	0.8	10-Jun	16-Jun

Figure 178 Gantt Chart for PSM2

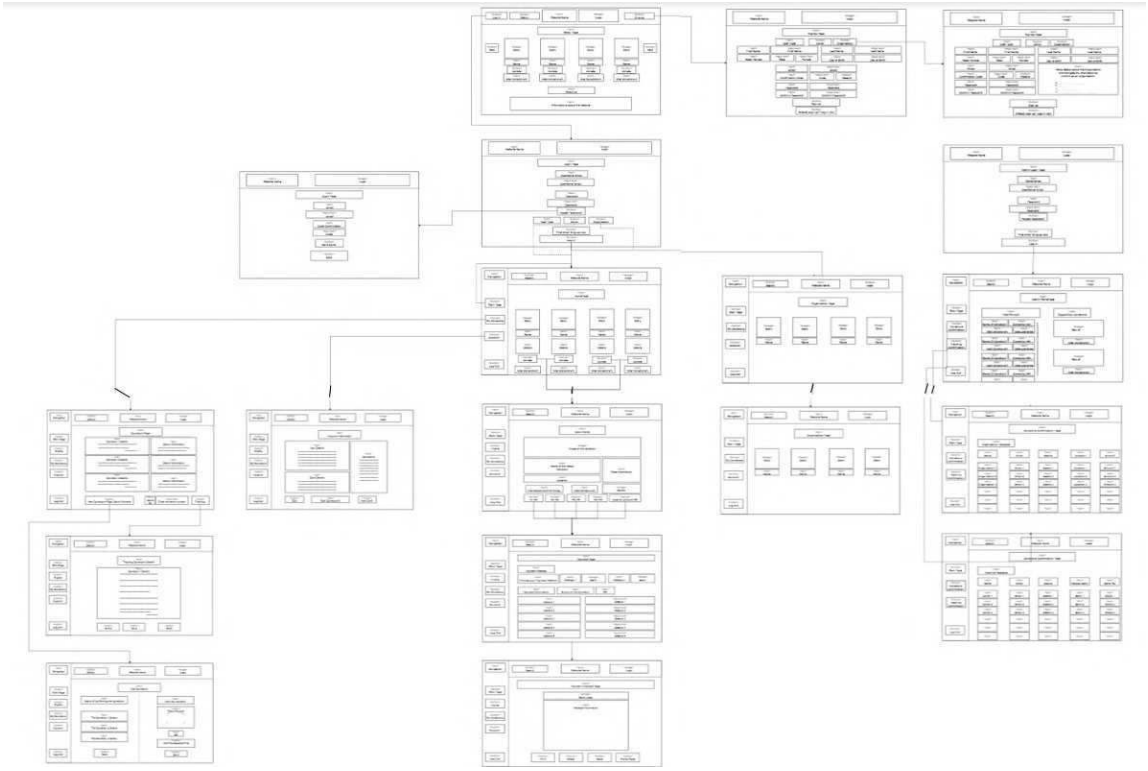


Figure 179:storyboard prototype.

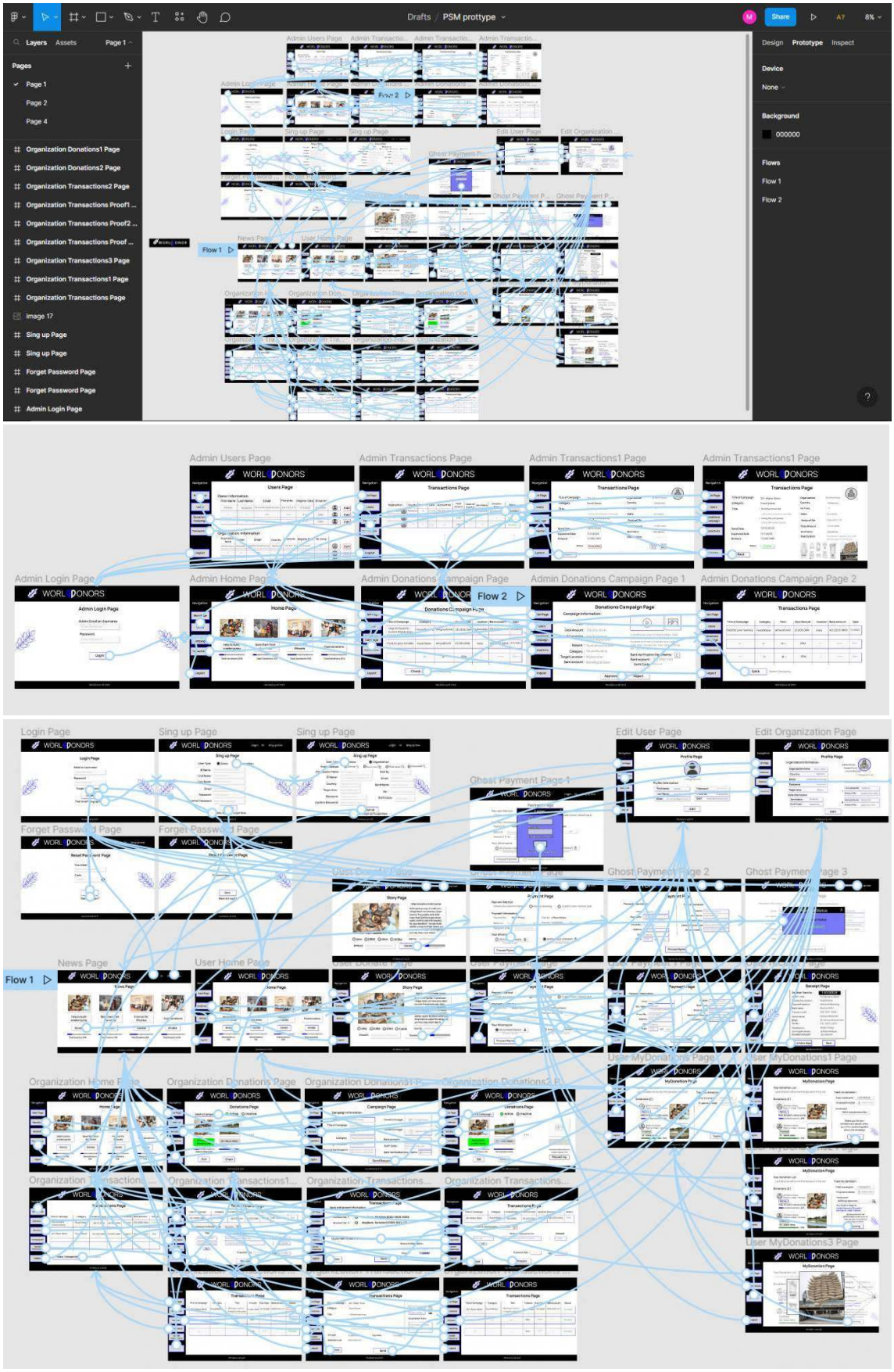


Figure 180: Figma design prototype for all pages.

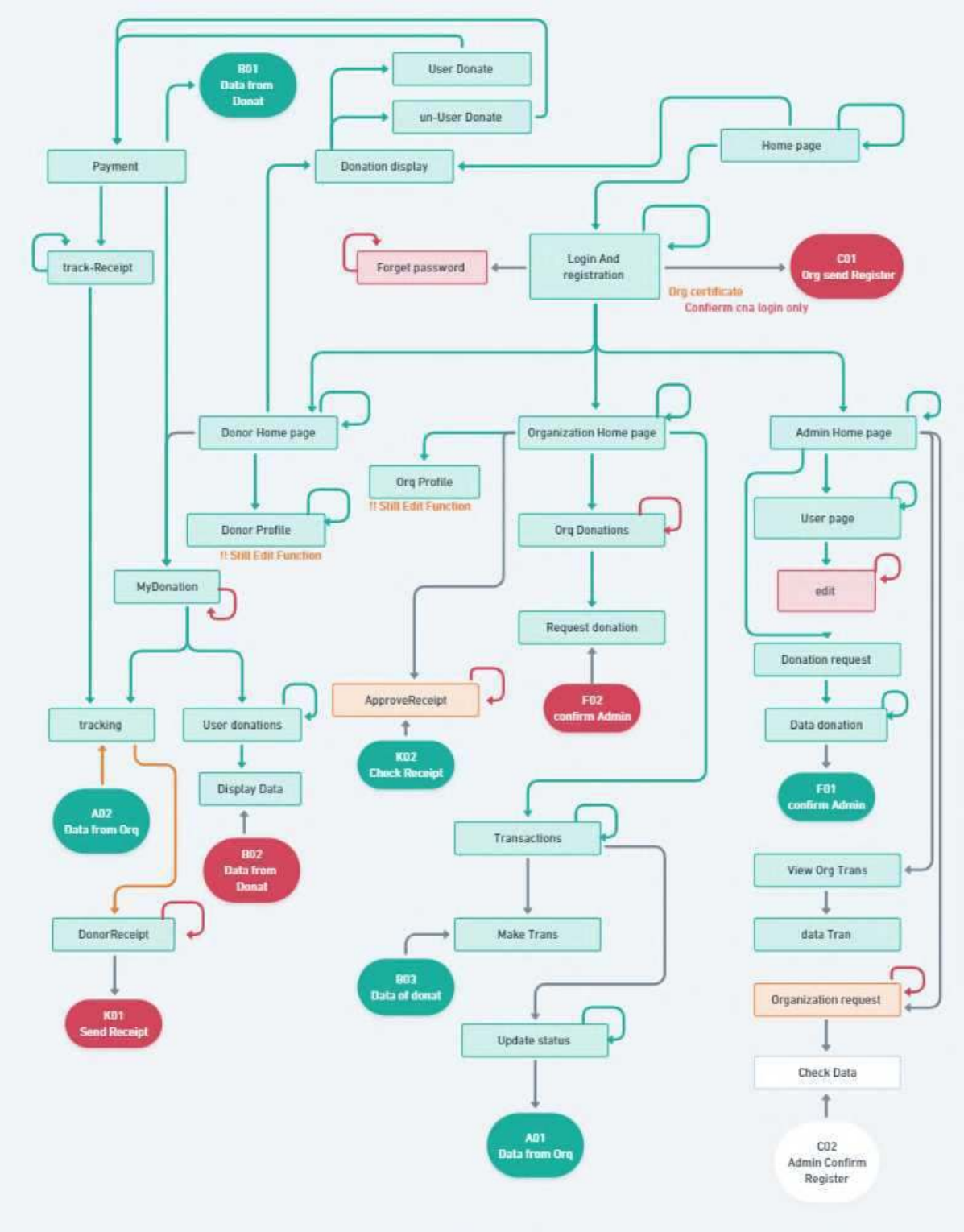


Figure 181 guardian of the project flow and functionality.