ON-GIFT SYSTEM

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ON-GIFT SYSTEM

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ABSTRAK

Jarak yang jauh merupakan salah satu perkara yang sering menjadi masalah kepada manusia terutama kepada golongan anak anak yang belajar serta bekerja jauh dari keluraga dan kampung halaman. Hal ini telah menyebabkan kesukaran kepada mereka untuk menyambut serta memberi hadiah kepada insan tersayang. Walaupun terdapat pelbagai sistem yang menawarkan pembelian barang secara atas talian, namun, walaupun dihantar kepada insan yang dituju, tiada keistimewaan yang dapat dirasai. Oleh itu, sistem On-Gift dibangunkan untuk membantu masyarakat dalam memilih dan membeli hadiah dengan mudah secara atas talian. Dalam sistem ini, pengguna perlu memilih lokasi pembelian dan seterusnya mereka perlu memilih jenis hadiah yang mereka ingin beli. Sistem ini juga menawarkan servis penghantaran kepada alamat yang telah ditetapkan oleh pengguna. Oleh itu, pengguna dikehendaki untuk berkongsi beberapa maklumat peribadi seperti nama dan alamat ke dalam sistem supaya ia memudahkan syarikat untuk mendapatkan data pengguna. Objektif sistem ini dibangunkan adalah untuk mewujudkan suatu sistem berasaskan web yang dapat membantu pengguna untuk membeli serta memberi hadiah kepada insan tersayang walaupun berada dalam keadaan jarak jauh. Pembangunan Aplikasi Rapid (RAD) adalah kaedah yang digunakan untuk membangunkan sistem ini. Terdapat empat peringkat dalam RAD ini, pertama adalah peringkat perancangan keperluan, kedua pula adalah peringkat reka bentuk, manakala yang ketiga merupakan peringkat pembinaan pesat dan yang terakhir adalah peringkat peralihan.

ABSTRACT

Distant distances are one of the things that are often to be a major problem for people, especially for children or those who are studying and working away from family and home. This has made it difficult for them to celebrate and give gifts to their loved ones on certain special occasion. Although there are various systems that offer online purchases, however, even if it sent to the intended person, there is no privilege can be felt. Therefore, the On-Gift system is developed to help the public in choosing and purchasing gifts easily online. In this system, users need to choose the location of the purchase and so they have to choose the type of gift they want to buy. The system also offers delivery services to addresses set by users. Therefore, users are required to share some personal information such as names and addresses into the system so that it will facilitates the company to obtain users' data. The objective of this system is to create a web-based system that can help customers to buy and give gifts to loved ones even in long-distance situations. Rapid Application Development (RAD) is a method used to develop this system. There are four levels in RAD, the first stage is requirement planning stage, the second is the user design stage, while the third is the stage of rapid construction and the latter is the transition stage.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF SYMBOLS

DFD   Data Flow Diagram

ERD   Entity Relationship Diagram

LIST OF ABBREVIATIONS

DFD   Data Flow Diagram

ERD   Entity Relationship Diagram

CHAPTER 1

INTRODUCTION

1.1   Background

The growth of the internet as a secure shopping channel has developed since 1994, with the first sales of Sting album 'Ten Summoner's Tales' Wine, chocolates and flowers soon followed and were among the pioneering retail categories which fuelled the growth of online shopping. Researchers found that having products that are appropriate for e-commerce was a key indicator of Internet success. Many of these products did well as they are generic products which shoppers did not need to touch and feel in order to buy. The existence of online shopping has received positive response from the world, especially from the rapidly developing country. This is because, online shopping gives customers the ability to purchase goods and services from a provider without ever going to the "brick-and-mortar" location. Instead, customers simply visit the provider or seller's website and place and pay for their order. The product or service is delivered to the customer's home. Online shopping can be done via computer, tablet, or smartphone (Pariona, 2017). According to a study, almost 70% of people in Japan, United Kingdom and Germany spend their money for online shopping.

Whilst according to studies, in Malaysia, the number of online purchases made by Malaysians amounted to approximately RM5 Billion in 2015 and is expected to increase from year to year. Shopping online is becoming increasingly popular among Malaysians pushing for the expansion of this business including *'Industri Kecil dan Sederhana (IKS)'.* There are many factors why Malaysians like to spend on online shopping. The factors are they are much cheaper, easy to find and it has become part of their culture.

In Malaysia, people often use internet-base to do things or even buying things. They use internet to facilitate their daily live in order to do something. For example, the wide use of internet such as online booking, online shopping and even do work online are now part of the citizens' daily routine in order to make sure that they use little time in doing things that can use online. Thus, this scenario has open so many opportunities for company that offer their products online especially for those who loves to online shop. Company such as Lazada, 11 Street and Shopee are some of the biggest online shop in Malaysia because these three company offer various kind of items that people can choose and buy with low price. Besides, they just can visit one site to buy many items.

1.2   Problem Statement

Nowadays, Malaysian citizen are often too busy to remember or celebrate together important events such as Birthday celebration, Mother's Day, Father's Day, Anniversary, etc. Moreover, for those who are studying or working far away from their hometown and they often cannot go home to celebrate together with their loves one.

If we look at the existence of online shopping for gifts nowadays are limited. Limited in terms of choice or the type of gifts that is provided as examples most of them provide gift options such as flowers and cakes only. The problem is that when the choices are limited, they will limit the choice to the buyer or the user themselves and it will also cause them to still go out to the actual store to buy the gift and most items such as cakes and flowers are easy to break. Besides, there are limited shops that provide various type of gifts online. Most of them are being sold at the physical shop which is quite difficult for those who do not have transportation to go the physical shop.

Furthermore, the user also do not have to worry about how they will get their gifts. This is because, it will ease the buyer or the user when they just have to choose the item that they want and they do not have to worry about how they will get the gift. The problem is when the gift store is far away from their home, they need to have transport to go there and it will be troublesome for those who do not have transport.

1.3   Goal and Objective

The goal for this project is to develop an online gift system for the user and to achieve this goal, the following objectives must be followed:

   i.   To investigate the current online shop for gifts

  ii.   To develop a system that can allow the user to purchase online gifts

 iii.   To evaluate and provide an online system for My One Shop, Country Homes that used Augmented Reality element in it.

1.4   Scope

1.4.1 User

a) Staff of the Gift Shop

The staff of the gift shop including the manager of the shop will be the administrator of the system where they can directly access to the system. They will also be the one who can control the database and they will update all the types of gifts and the information of the item that their shop providing.

b) Customer

The customer is the main target user for the system because they will be the one who mostly use it. The customer first need to choose the type of gift they want and they just have to enter some of their personal information to ease the delivery process and etc.

1.4.2   Location of Gift Shop

The name of the gift shop that will be cooperating with this system is My One Shop where they provide various type of gifts and items with wide range of price to the customers. The gift shop is located in Country Home, Rawang, Selangor Darul Ehsan.

1.4.3   Web Based Platform

The system is using the web based platform because it allow easy access to the user. This platform ease of management for the administrator to update the latest information about the gift shop or any other promotions and it will ensure the system is more secure. It will be more effective and protective.

1.4.4   Augmented Reality

The system also use Augmented Reality element to allow user to see the product on the exact size and what kind of activity that the product can do. To achieve this activity, the user need to install Augment apps in their mobile from google play store. To use it, the user need to scan the image that are provided in the system.

1.5   Thesis Organization

This thesis consists of five chapters which are the introduction, literature review, methodology, implementation and result as well as the conclusion. In the first chapter, it will discuss on the introduction, problem solving, objective, and scope. Literature reviews will be discuss in the second chapter and the next chapter which is the third chapter will be discussing thoroughly about the methodology. Next, in the fourth chapter, we will discuss on ways how to implement the system as well as the result of the system after being implemented and tested. Last but not least, in the final chapter, we will see the conclusion of the proposal.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

On-Gift System is an online system that is developed in order to help the user to order and purchase gift easily. The client of this system is the gift shop named My One Shop. There are less in number of gift shop that offer their service and products online which it is a bit harder for those who need to go to the physical gift shop to buy gift whereas most of them do not have transport or even the distance of the gift shop is far from their home. Hence, this system will definitely help the user to purchase gift via online.

One of the problem with the purchasing gift at the physical shop is the customer need to have transport in order to go there. It is a huge problem for those who do not have transport or sometimes they need to spend some money to go there by public transportation. Thus, the On-Gift System are develop in order to solve this problem. This system can just be viewed via online and in order the customer do not want to purchase any item, they can just log out from the system without spending any money.

2.2 Comparison of Three Existing System

There are three system that are chosen to be compared based on the objective of their system and what kind of product they offer and they are LAZADA.com.my, Ferns&Petals(fnp), and Shopee.com. These are the three examples of system that provide user or customer to buy gifts and items online. They are also use web based platform for their system which is the same as On-Gift system. However, they are still lacking in certain parts and that is why we need a better system that provide a better platform to buy gift online in Malaysia. Thus, the On-Gift system also offers various type of gifts that has

various range and reasonable price. Through this comparison, users will know what is the part of these three systems that are still lacking. The user will identify why the On-Gift system can facilitate and help people in order to purchase gifts easily by online.

2.2.1 LAZADA.com.my

LAZADA is one of the leading thoughtful online shopping marketplace. Shoppers can find a wide variety of innovative, unique and personalisable products under one roof. It is also a platform where most of the brand can promote their products in one same platform. However, it is actually will cause a huge competition between those brands as there are some of the redundant products offered by different brands. Lazada.com.my provide and sell items that most people need such as clothes, accessories, skincare products, etc. This shows that Lazada is one of the best medium for people to choose their items using online.

However, nothing is perfect where this online shopping page is also has its' own disadvantage. One of the weakness of this shopping website is, it is not specific to online gifts purchase system. It is just an ordinary online shopping website where the user can only online shop the items and the procedure of getting the item is just the same as when they get their item, therefore, they have to wrap the items themselves in order to give the gifts to the person. It is clearly shows that they have to waste time in order to make sure that they really want to give the item as a gift.
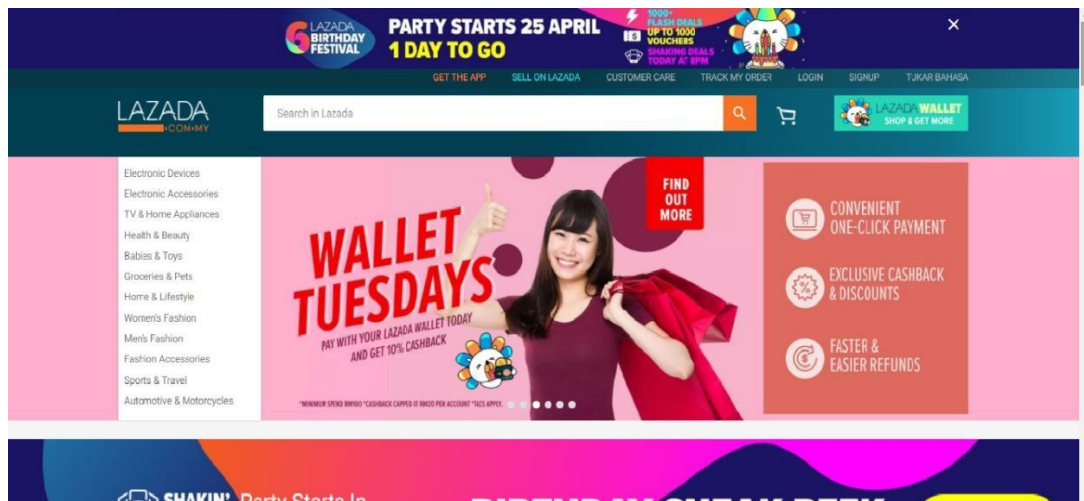
Figure 2.1   Home page of LAZADA.com

Source: https://lazada.com.my/

System: Web Based System

Figure 2.1 shows that the existing online shopping system which is Lazada.com.my is almost perfect and easy to use. It also offers various type of items to the user. The criteria of the system will be discussed in Table 2.1.

Table 2.1 Criteria of the Lazada.com.my

Criteria	Description
Graphical User Interface (GUI)	The menu bar provided for the user is more detailed and the theme colors are quite colorful. It will make the user who visit the web page feel happy and feel the fanciness.
Speed of browsing	Fast
Security	Yes
The language used	English

2.2.2   Ferns & Petals.com.my (fnp)

The fnp system is one of the good system that provide online gift shopping, but the problem is when the types of gift they offer is quite limited to only certain items such as cakes, flowers and pillows. There are not many choices of gifts that the user or customer can choose.

Besides, the price they offer to the customer are quite expensive and it is quite burdensome for those who are not afford. Therefore, to conclude, fnp is one of the system which are very limited; price range, items that are provide and even the choices of gifts itself.
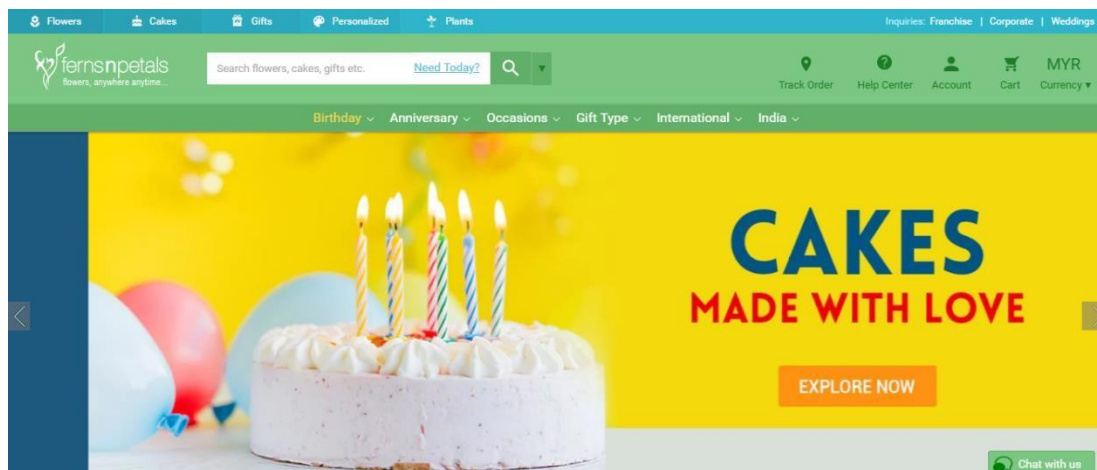
Figure 2.2   Home page of Ferns & Petals.com

Source: https://www.fnp.com/malaysia/gifts

System: Web Based System

Figure 2.2 shows that the existing online gift shopping system is quite complicated to use. There is no highlight for the user on where should the user focus on at the home page. It is quite confusing for the user to use the system especially for the first timer. The criteria of the system will be discussed in Table 2.2.

Table 2.2   Criteria of the Ferns & Petals.com.my

Criteria	Description
Graphical User Interface (GUI)	The web page use various type of color and that will make user become confuse on where should they focus more.
Speed of browsing	Not fast
Security	Yes
The language used	English

2.2.3 Shopee.com.my

Shopee.com.my is the online shopping system which provide various type of things and items for their user and customer. It is the same as the Lazada system where it is actually gives many choices for the users. Shopee is a shopping site which offers and provide various kind and types of things such as clothes, accessories, cooking tools, etc.

However, this online shopping website do not have specific service for gifts. They just an ordinary shopping system where their customer can only shop and get their things like always.

9
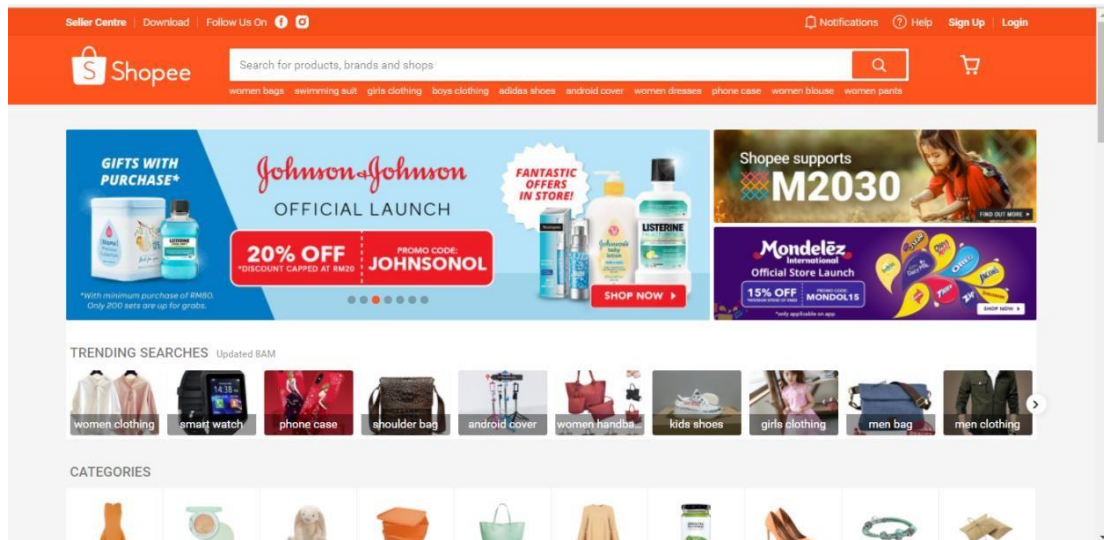
Figure 2.3   Home page of Shopee.com

Source: https://www.shopee.com.my/

System: Web Based System

Figure 2.3 shows that the existing online gift shopping system is easy to use. There are so many items that been offer in Shopee.com. There are various kind of clothes that are offer such as clothes, accessories, etc. The home page itself shows that this system is actually can offers various type of choices to the user and the price itself is quite reasonable. The criteria of the system will be discussed in Table 2.3.

Table 2.3 Criteria of the Shopee.com.my

Criteria	Description
Graphical User Interface (GUI)	The web page use warm and dark concept of color which give romantic vibe to the user. It also provide a Customer Care section for the customer.
Speed of browsing	Not fast
Security	Yes

The language used	English

2.3   Summary

There are advantages and disadvantages based on the system that had been compared. Based on the comparison above, the new system: On-Gift System can improve the content of the system. For Lazada and Shopee, it is true that their systems offer various types of items for the user, however, there are not focusing on the online gift service.

Hence, compared to the three existing system that has been explained earlier, On-Gift system offers users and customer to choose their own items and how they want their gifts to be delivered. It is one of the way that actually give choice to the user to choose the items and they can experienced on how to online shop gifts for their loved one.

In this system, the Rapid Application Development or RAD method is being chosen to be used compared to other methods such as waterfall, etc. This is because, the On-Gift system is mostly follow the requirement from the client. If there are still progress or update from the client, the system analyst need to take note about it and they need to follow what the client want. Compared to waterfall method where it is not based on the client needs and requirements. The content and all the parts in the system cannot be change. Thus, that is why RAD method is more suitable to be implemented in the system as it can be always be update suitable to what the user want and need.

CHAPTER 3

METHODOLOGY

3.1 Introduction

In the On-Gift system, the method that is being used is RAD which is Rapid Application Development. RAD is a type of software that does not use or spend a lot of time in planning the system. Without numerous number of pre planning in the development stage, the system can easily be changed to quickly make changes throughout the testing stages. There are four essential phases that involved in the RAD method which are Requirement planning phase, User design phase, Construction phase, and Cutover phase.

There are various type of benefit why choosing to use the RAD method, some of them are because, when using the RAD method, it offer better quality compared to others method because it involves user as it can be more usable and has a better chance to focus on business problems that are critical to end users rather than technical problems of interest to developers. Next, the system can be completed on time and within budget. With RAD, it can be beneficial as some information such as realization on critical problems that will be faced by the system can be discovered and acted in the earlier process.

3.2 Rapid Application Development (RAD)

On-Gift system apply the Rapid Application Development which is known as RAD because it is more to user friendly. It involve user in making choices and to make decision in the process to complete the system. Hence, all of the four phases in RAD are commonly involves user to take part in the making of the system as all of the information

provided and even how the interface of the system looks like will have the users' opinion in it.
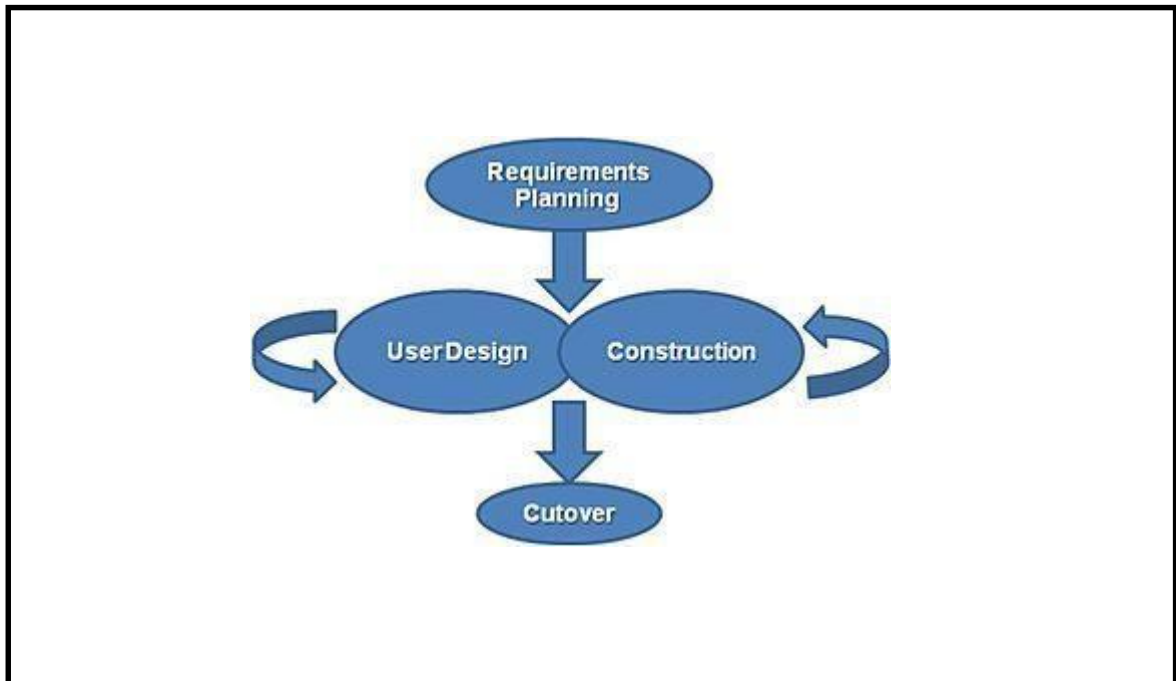
Figure 3.1   Four phases in RAD

3.2.1   Requirements Planning phase

In this early phases of developing the system, it is actually combining two elements of the system planning and system analysis phases. It is the earliest stage where all of the developer, users, managers and even the IT staff plan and analyze about the system.

In developing the On-Gift system, the first stage in RAD is the phase where some planning and analyzing activities occur such as collecting criteria requirement of the system, analyzing the advantage of the system, time taken for the system to be complete and even how to develop the system to be functioning as what it should be. This phase also involve the activity of finding real-time client for the system and figure out some of the existing systems that may be exist or implementing the same purpose as the On-Gift system.

Thus, the activity that had been done in order to complete the first stage is firstly, finding the suitable client for the system which is in the On-Gift system, we agree to take the My One Shop, Country Home as our client as they meet the requirements need for the system. Therefore, in order to confirm the decision, I have called the manager of the shop to do some explanation on how the system works and what do we need from them. The requirements that were asked for the system are the name, the price and the discount of the item that they want to sell. In the first stage also where the problem statement had been generate so that we will know clearly why do we need the system and why this new system are better than others that have already exist. Based on the problem statement that had been generate through this stage, it is more easy to generate the objectives of the system and in this stage, we got to figure out the scope of the system and the output of the first stage is we agreed that the On-Gift system can really facilitate users in many ways.

3.2.2 User Design phase

In this phase, user can interact directly about the system with the system analyst. It is one of the stage where the system analyst can create a system that meet with the user needs and requirements. It is the phase where the user will make some agreement with the analyst on what to put or show in the system.

In the process of developing the On-Gift system, the user design phase involve the client to provide information and choose what items they want to offer in the system. The client also deal with the system analyst on what to show or what to be highlight in the system.

In this user design stage, there are few diagrams that are being produce in order to have more understanding about the system. The first diagram is the Context Diagram. The context diagram shows the the On-Gift system under consideration as a single high-level process and then shows the relationship that this system has with other external entities such as customer, staff and the admin.

There are three external entities that involved in the system and they are Staff, Customer and Admin. For the relationship between the Staff and the system, the Staff is

the one who has the capability to manage the information given to the system while the On-Gift system is responsible to promote the items suit with the information that has been given by the Staff. Next is the Admin of the system. The Admin is responsible in handling the customers' data and the system can be easily access by the Admin. Lastly, Customer can choose items that has been provided and shown by the system.

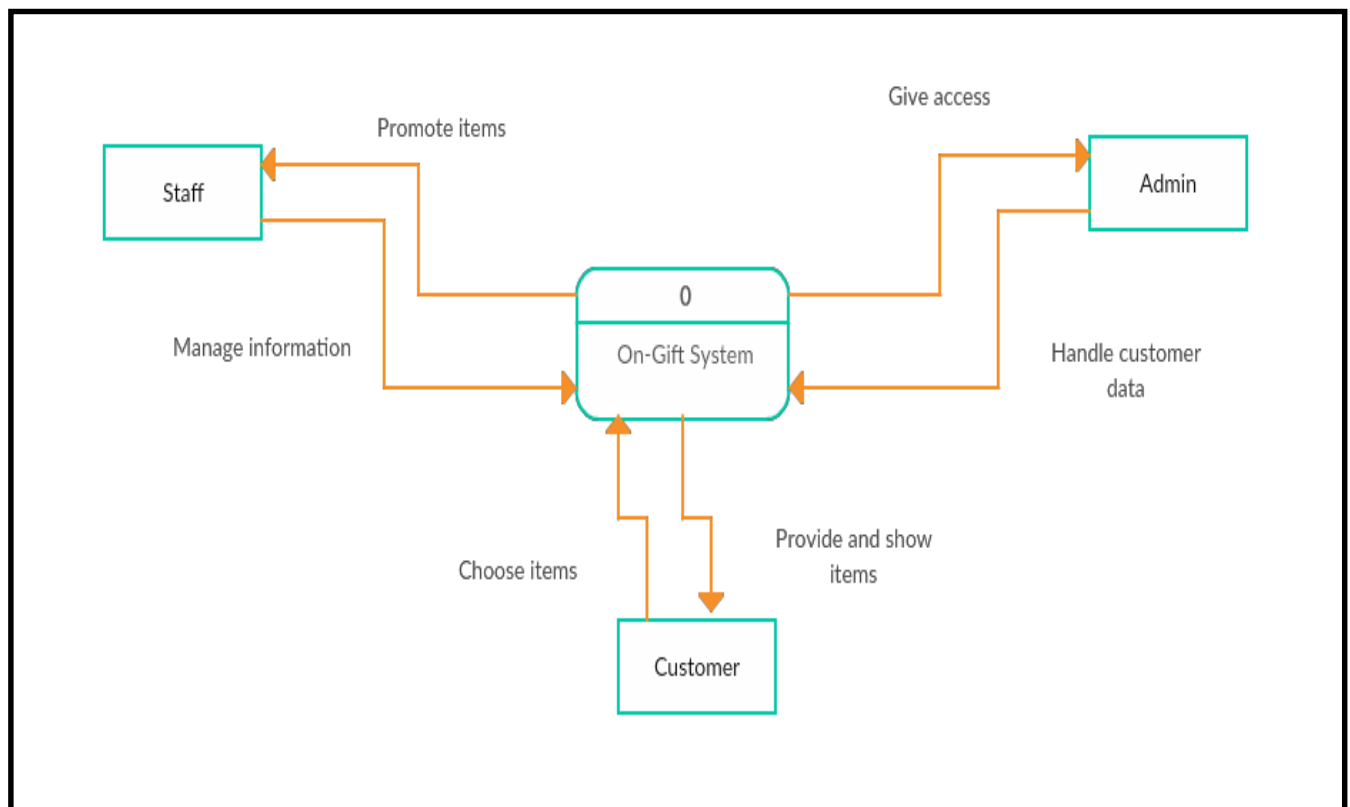Figure 3.2.2.1   Context Diagram of the system

Next is the Data Flow Diagram which is known as DFD. A data Flow Diagram (DFD) is a graphical representation of the 'flow' of the data through an information system, modelling its process aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated.
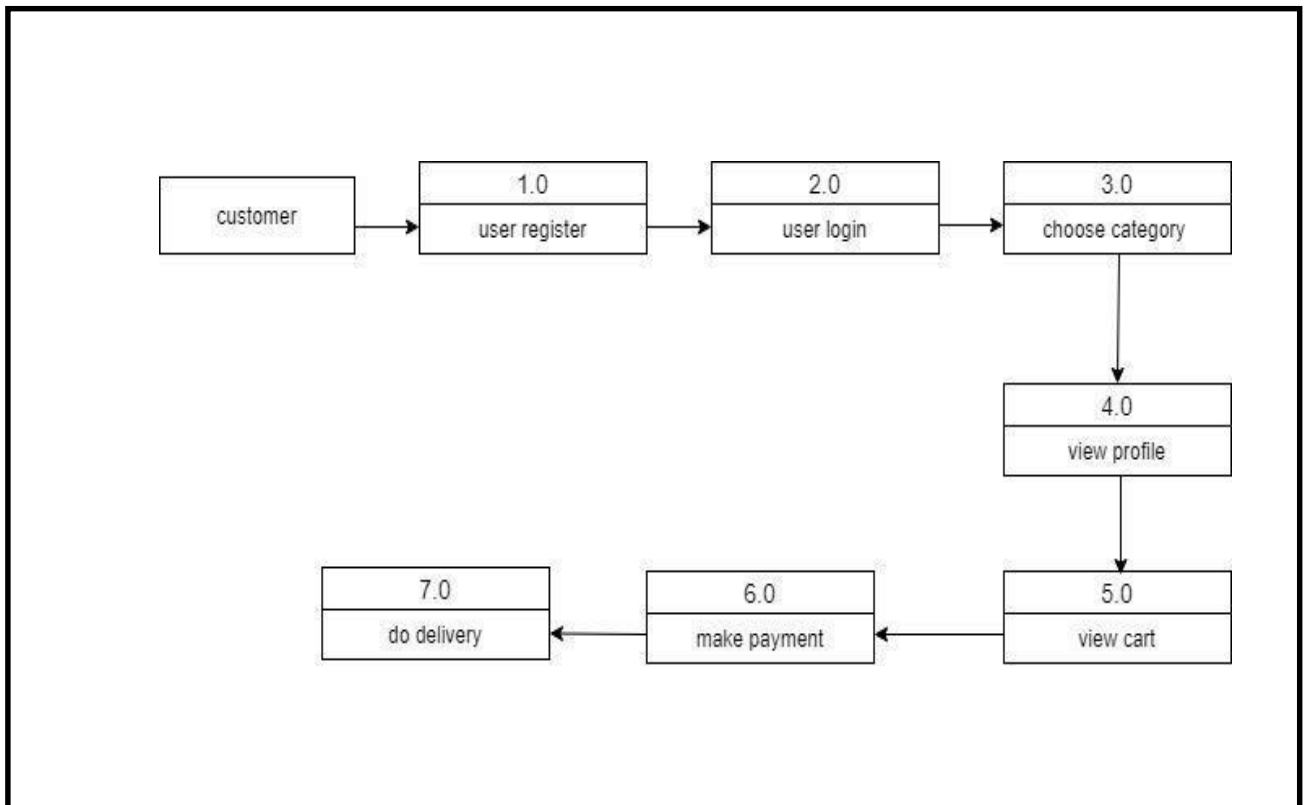
Figure 3.2.2.2   Data Flow Diagram Level 0 of the system

Figure 3.2.2.2 shows the Data Flow Diagram Level 0 of the system where it started with the user which is customer. It will start with the user register to the system and after they have register, they need to login into the system based on the information that they have enter in the registration form. Then, for starting the gift purchasing activity, they go to the level 3 which is they need to choose category. After they have choose the category, they can view their profile in the system. They also allow to view the cart. After they have confirm their gift purchased, they have to continue to make payment. And after it settle, the gift shop have to do delivery to the customer.

16
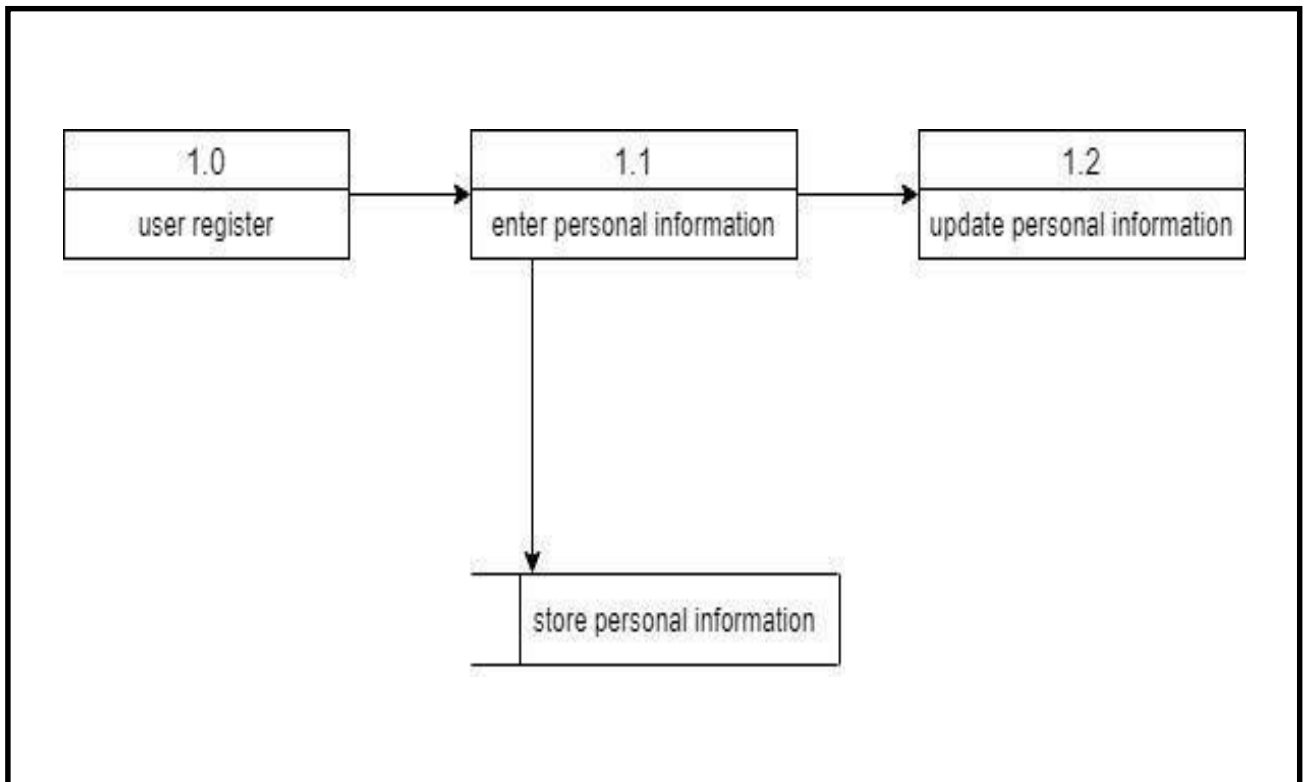
Figure 3.2.2.3   Data Flow Diagram Level 1 of the system

In the Data Flow Diagram Level 1, it shows the process or activities that occur in the user registration process. The user need to enter their personal information such as name, address, id number. Next, they can choose whether they want to update their personal information. In this registration process, the database of the system will store the personal that has been entered or updated by the user.

Figure 3.2.2.4   Data Flow Diagram Level 2 of the system

Figure above shows the DFD level 2 of the system where in this level, it shows the user login process. In this process, the user need to enter their user id in term of the storing data process of the system. The system does not need password from the user because every user has their own unique id number based on what they have register.

Figure 3.2.2.5   Data Flow Diagram Level 3 of the system

The figure above shows the DFD Level 3 of the On-Gift system. In this level, the user first need to choose the category of the gift that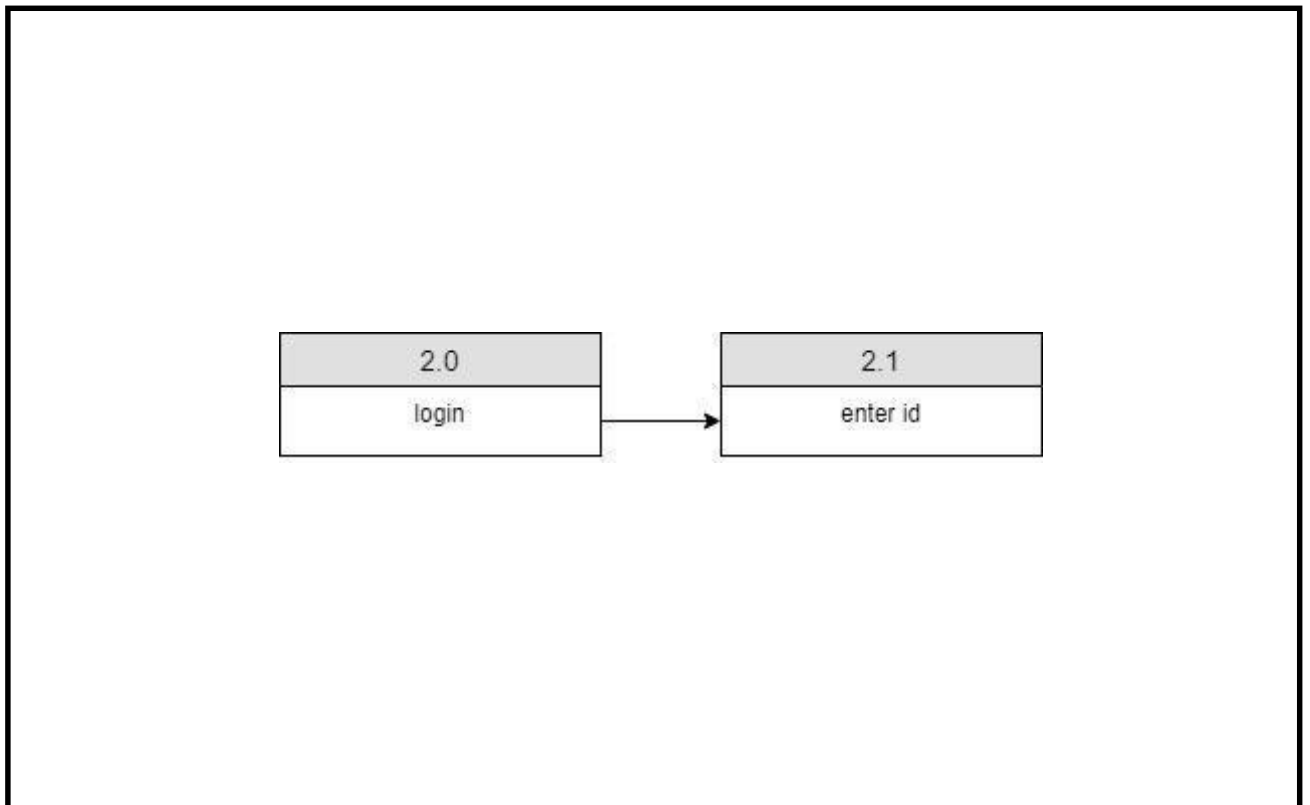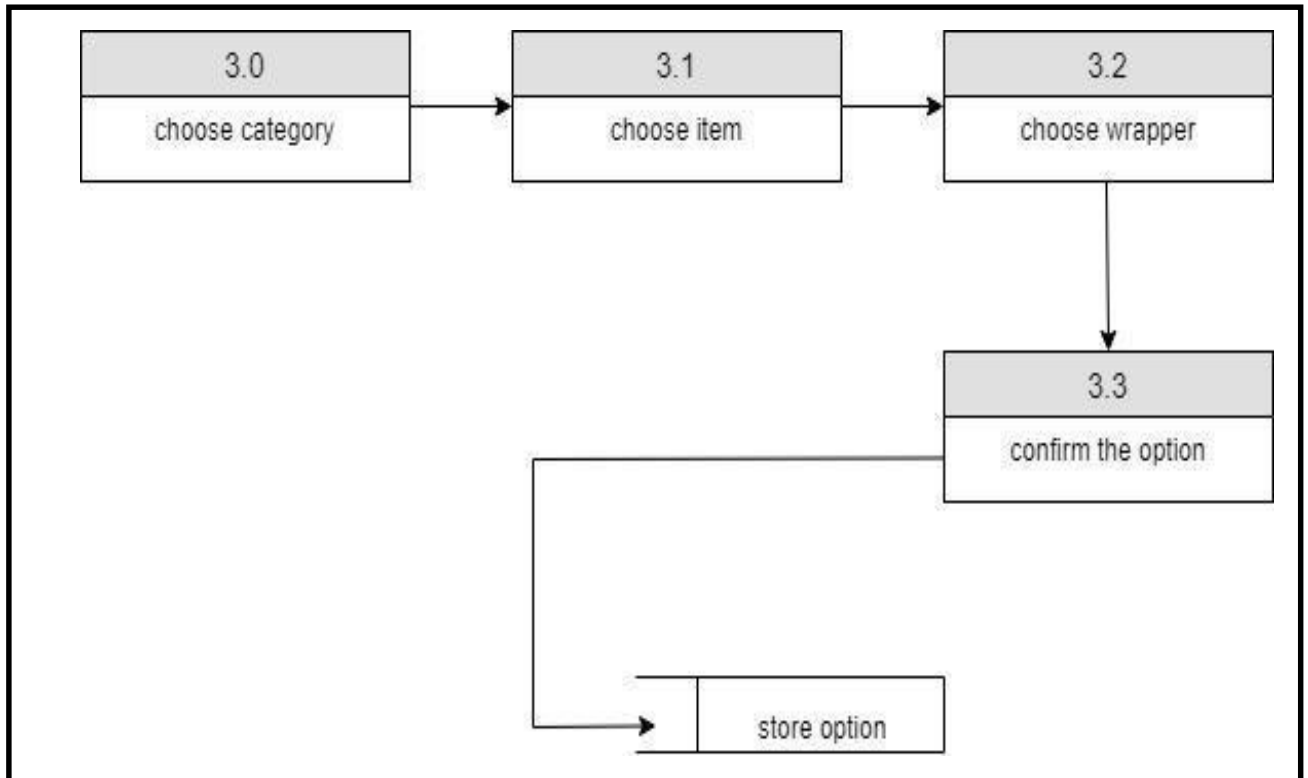 they want to purchase. After they have choose the category, they need to choose the item, what kind of item or gift they want. Next, they can choose their wrapper for the gift they just purchased. After they have finish all of the steps in choosing the item of the gift and the wrapper, they need to do confirmation on what they have chose.

The next diagram that is produced for the system is Entity Relationship Diagram which is known as ERD. An Entity Relationship Diagram is a data modelling technique that graphically illustrates an information system's entities and the relationships between those entities. An ERD is a conceptual and representational model of data used to represent the entity framework infrastructure. For the relationship between the customer and the item, one customer can purchase many items, while many items can be kept into one cart. That is mean, one cart can have many items in it. For the staff, the staff provide information about the items. One staff can provide many information of one item. Same goes to the admin where it can access to the system.
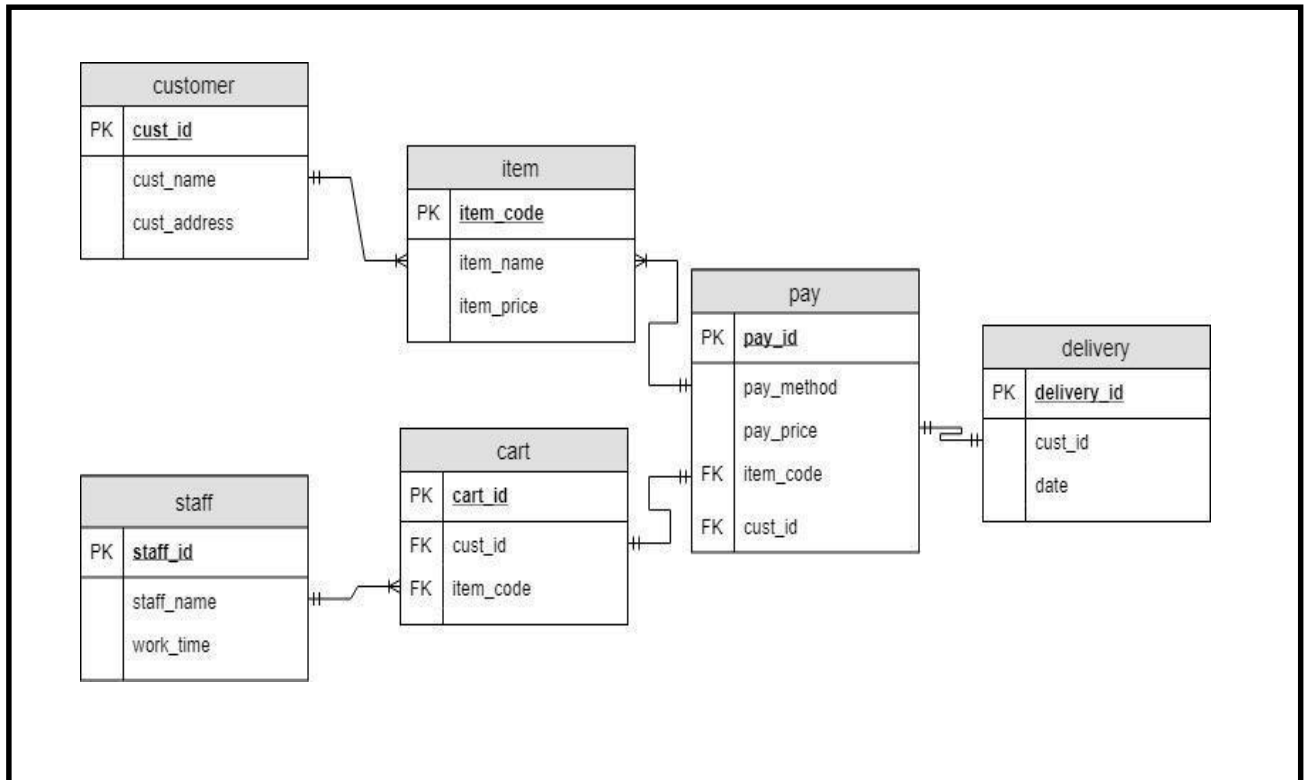
19

Figure 3.2.2.6   Entity Relationship Diagram of the system

Next is the dialogue diagram where the dialogue diagram act as a flowchart of a dialogue in a system. It is used to visually map the steps that a user may take in the On-Gift system. It will eventually shows to the user what are the steps that they can take or do to use the system and how they can purchase a gift by using the system. At first, the user will go the home page of the system where at the home page, user can start to do their purchasing and viewing activities of the items. Then, for those who are still not register with the system, they need to register as it will be easier for the system to store the customers' data. When they enter the registration page, they are ask to enter their personal information. They also allowed to update their personal information. Then, the user need to login into the system. After they have login into the system, they can continue with their activity where they can purchase the gift that they want. After they finish choosing the gifts, they also can choose the wrapper that they want. Then, they need to choose how they want to pay for the gift that they have purchased. Every item that has been chosen are going to be enter into the customer's cart.
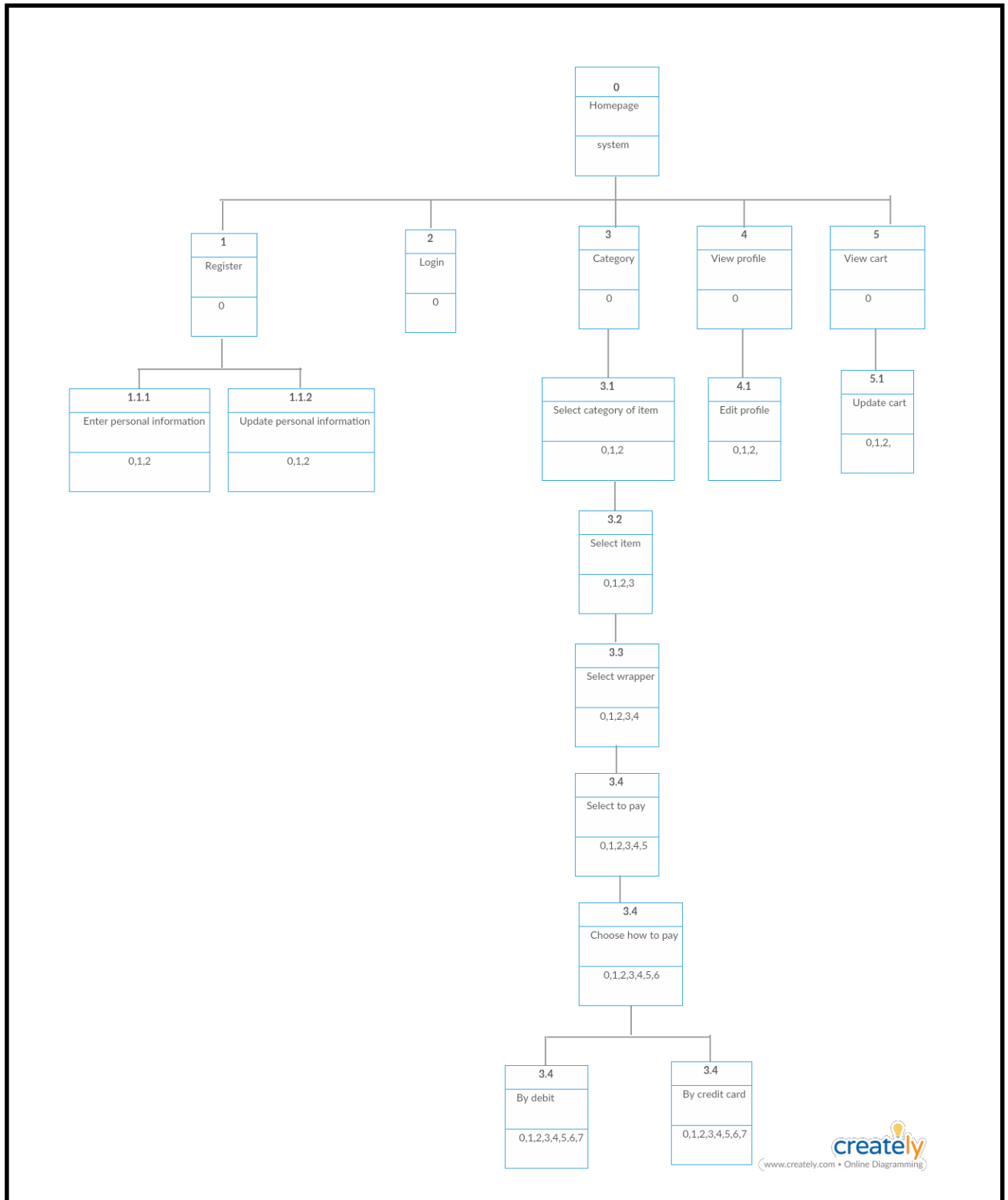
Figure 3.2.2.7   Dialogue Diagram of the system

The final diagram that involves in this phase is the user interface design where in the On-Gift system, there are ten interfaces that involves in the system. The user interface design will show to the user which interface they need to view for certain activities. There are guide for each interfaces for the user and it will be easier for the user to use the system.

Figure 3.2.2.8   Home page of the system

The Home page is the main page of the On-Gift system. It will be the first page that the user will view. It display the main button that user can use to choose the activity they want to do in the system. There are five main buttons which are Sign In button, Products button, About button, Contact button and Admin button. The Sign In button will direct to the registration page. The Products button will direct to the categories of products page and the About and Contact button will direct the user to the about and contact page. Hence, for the Admin button, it will direct to the registration for the admin page where it will direct the admin to the admin page.
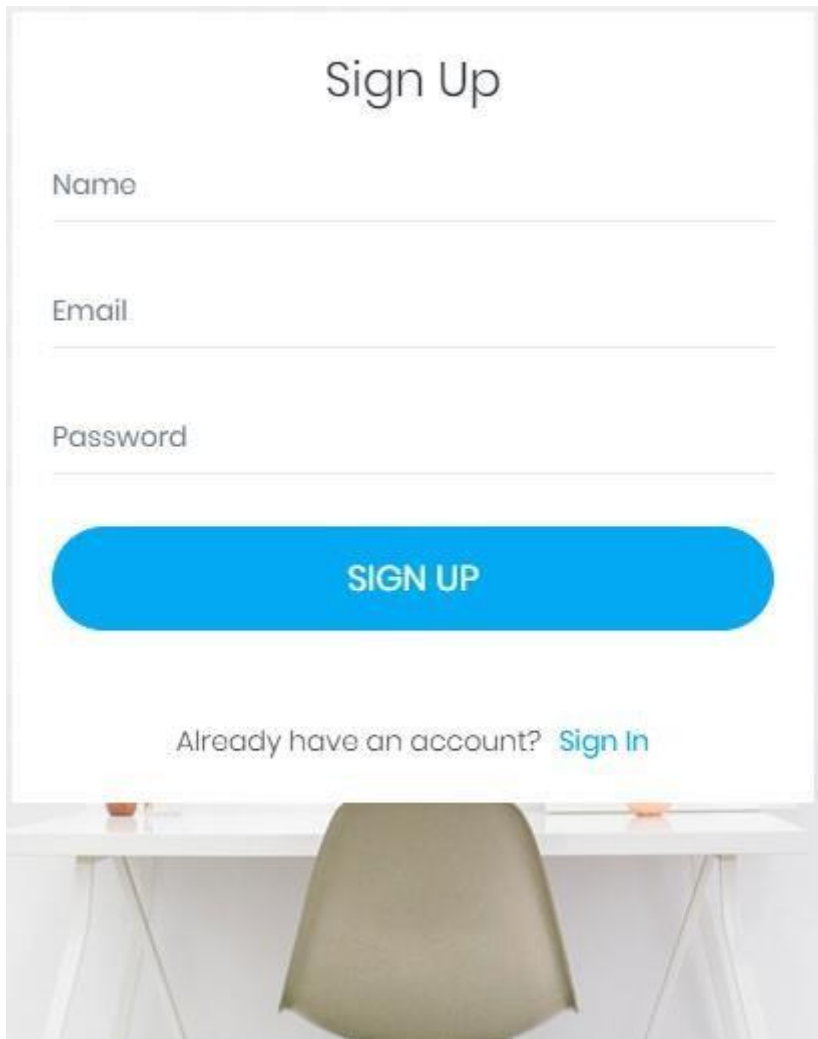
Figure 3.2.2.9   Registration page of the system

Figure above shows the registration page of the system. The registration page is directed from the Register button. In this page, there are a form that user or customer has to fill in, in order to continue the next activity which is purchasing gifts. There are five things that the user should fill in such as name, email and password. After the user has finish fill in the registration form, they have to click on the SIGN UP button and the users' data and information will be keep in the system's database. After they have finish, they can click on the SIGN IN button to go to the next step of activity. If they want to direct to home page, they can click on the ON-GIFT name.
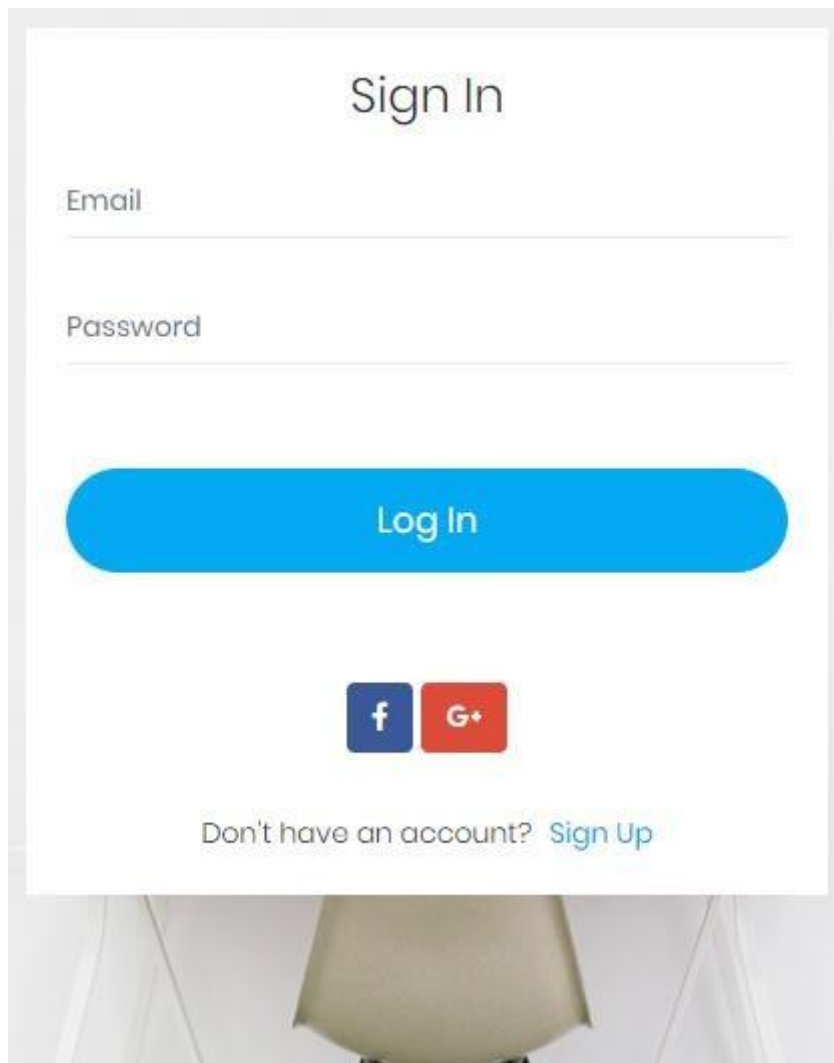
Figure 3.2.2.10   Login page of the system

Figure above shows the Login page for the system which it will direct from the Login button. In this page, the user is required to fill in their email and password that has been register before. The password is set by the user itself. If the user do not sign up into the system yet, they need to click on the SIGN UP button. After the user has finished login, they have to click on the Login button to submit their information directly go to the next page to continue their activity.
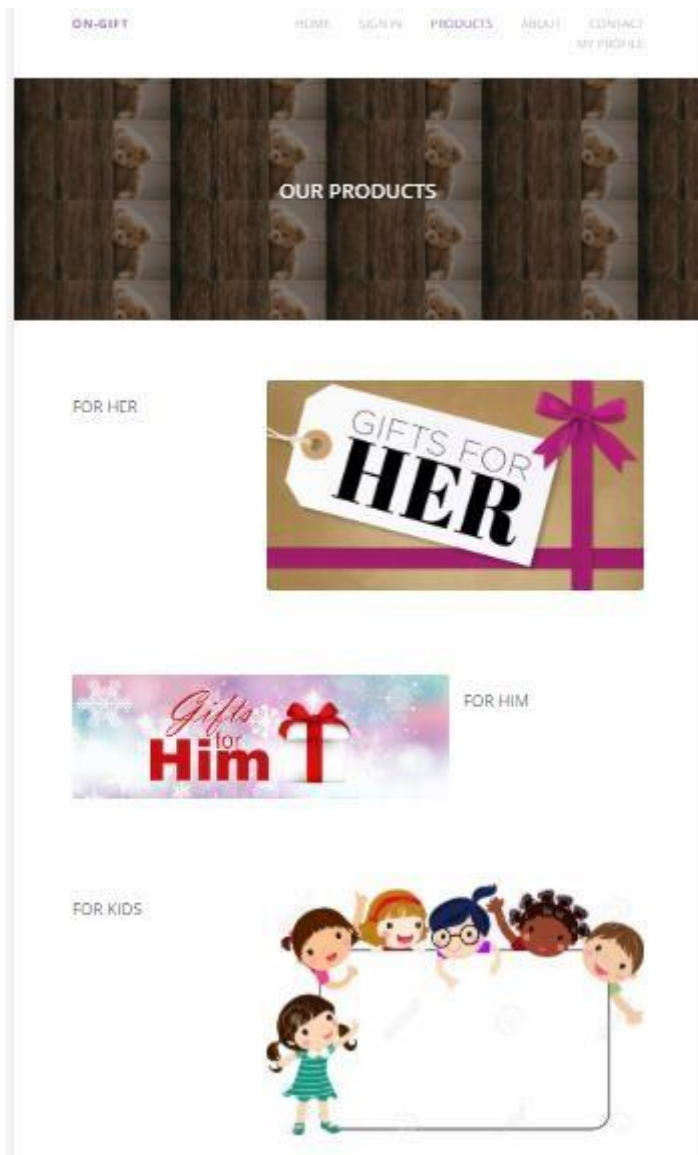
Figure 3.2.2.11   Products page of the system

Figure above shows the Products page of the On-Gift system. The user will be directly go to this page after they click on the button products at the Home page. This page will show three categories of gifts that they can choose. The user can choose which category they want to buy the gift and they just can click on any button to view the type of gifts.

Figure 3.2.2.12   About page of the system

Figure above shows the About page and it will show the detail description about the system. mostly, it will tell you about the background of the company where what is the system is about.

Figure 3.2.2.13   Contact Us page of the system

Figure above shows the Contact Us page of the system. In this page, it will show the information of the client of this system. It will show the address, contact number, and the email of My One Shop, Country Home. The user are also allow to sent their message to the admin where they need to fill up the form that is provided and write their comments or messages that they want to write, and then they need to click on the button SEND MESSAGE.

MY PROFILE

My Cart

Number	Item Name	Price	Quantity	Remove Order
1				Remove
2				Remove
3				Remove
4				Remove
5				Remove
6				Remove
		Confirm Order		
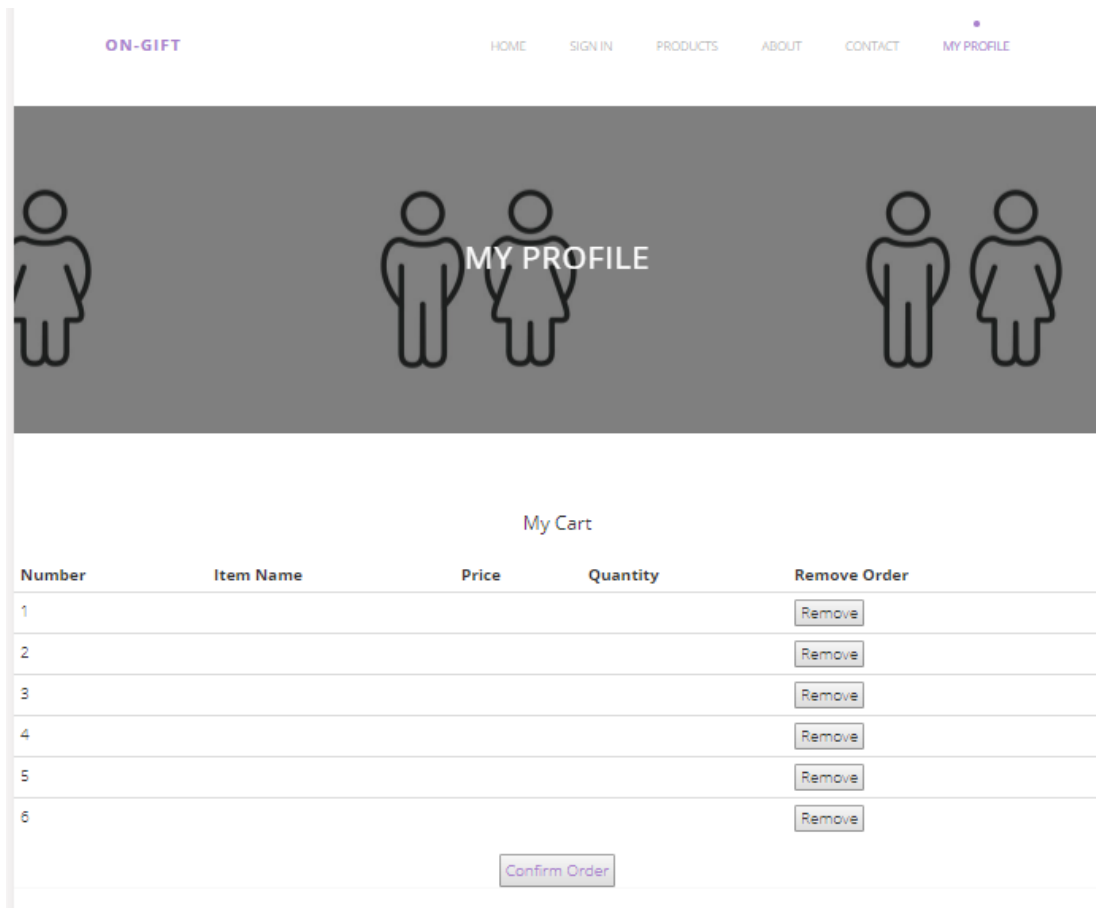
Figure 3.2.2.14   My Profile page of the system

Figure above shows the My Profile page of the system where it contains the list of items that has been purchased by the user. It is likely same as My Cart where it shows the list of items that the user has purchased. In this page, the user are allowed to remove the item that they want to remove. After they have finish, they need to click on the button Confirm Order to go to the next activity.

Figure 3.2.2.15   Receipt page of the system

Figure above shows the Receipt page where the user can view the total price they need to pay after they have purchased the items from the system. If they want to proceed with the purchase, they can click on the button PROCEED TO PAYMENT. Therefore, if the user want the receipt, they can click on the button PRINT.

3.2.3   Construction Phase

In this phase, as the system are being developed, the client are still allowed to do changes toward the system. It is depend on how the system are working and how it is publishing the One shop's products. If there are still certain things that the client feel and think like need to change and reconstruct, the system analyst need to do so.

3.2.4 Cutover Phase

Resembles the final tasks in the SDLC implementation phase, including data conversion, testing, changeover to the new system, and user training. Compared with traditional methods, the entire process is compressed. As a result, the new system is built, delivered, and placed in operation much sooner.

3.3 Hardware and Software Requirements

The requirement of the On-Gift system are divided into two parts which are hardware and software requirements. Both parts play important role in contribute to develop the software system.

3.3.1 Hardware Requirements

Hardware	Function Purpose
Laptop	A portable computer used for the development and documentation of the project.
External Hard Disk	A data storage device used for storing the system and documents and act as a system and documentation backup storage.

3.3.2   Software Requirements

Software	Purpose
Microsoft words 10 32 bit	The Operating System
Notepad++	To Develop prototype of the system
WAMPP Server 3.0.6	The platform to run the system
PhpMyAdmin	To store the database
Microsoft Office 2013	For documentation
Microsoft Powerpoint	For the references
Microsoft Office Project	To plan for the milestone of the project

3.4   Implementation

Before a new system will be implemented, the system must go through a test run to ensure that the system can run perfectly as it plan. In this phase, a complete program of the system is being evaluated based on the requirements that has been identify. The system testing used testing technique to ensure that the system can run and work perfectly as what it is plan. In this system testing, every module will be tested and the thing that needs to be test is:

i.   Interface

The interface of the system will be test to ensure that the information and the process run properly into and out of each program under test.

ii. Error Handling

All of the error handling paths will be check to ensure all of the fatal errors during system

execution will be detected and recovered early to prevent further problems.

iii. Input Output

The system will be test to produce expected output when the input is inserted.

CHAPTER 4

RESULTS AND DISCUSSION

4.1   Introduction

This chapter describes in more detail the structure of the database available on the On-Gift System. This chapter also describes the coding, debugging, and documentation. The main activities in this phase is the coding and debugging. In addition, the structure of the coding system is also in this chapter are used to carry out functions that exist in this system.

4.2   Implementation

This part will show the process that involved in the project development. In general, it describes how the project was structured.

4.2.1 Software Product Features

Table 4.2.1: Use Case Login by admin

Use Case	Admin Log In
Brief Description	Admin will enter the username and password and system verifies the username and password then the login is success
Actor	Admin
Pre-Condition	Display login page
Basic Flow	1. Admin enters username, email, and password in register page. 2. Admin need to click on the button "I Am Admin" 3. The login controller submits password, email, and username to Admin data. 4. The data of admin verifies their password and username.[E1: invalid username, email, and password] 5. The login is success. 6. The use case end.
Alternative Flow	Not Applicable
Exceptional Flow	E1: Invalid username, email, and password. Condition: 1. The username, email, and password must valid in data admin.

Post-Condition	Success to login to admin page.
Rules	Not Applicable
Constraints	Not Applicable

Table 4.2.2: Use Case Login by user

Use Case	User Login
Brief Description	User will enter the email and password and system verifies the email and password then the login is success
Actor	User
Pre-Condition	1. Display Sign Up page 2. If the user did not have an account yet, they need to sign up. 3. If the user already have an account, they can click on to the Sign In link
Basic Flow	7. User enters email, and password in Sign In page. 8. User need to click on the button Login. 9. The login controller submits email and username to User data. 10. The data of user verifies their password and email.[E1: invalid email and password] 11. The login is success. 12. The use case end.
Alternative Flow	Not Applicable

Exceptional Flow	E1: Invalid email and password.
	Condition:
	2. The email and password must
	valid in user admin.
Post-Condition	Success to login to admin page.
Rules	Not Applicable
Constraints	Not Applicable

4.2.2   Database Creation

In this phase, php MyAdmin SQL used to store data that has been filled by visitors, such as making an online application. PHP SQL MyAdmin used as local storage and Apache server to connect to the database system. phpMyAdmin SQL Server and Apache Server will in turn may have XAMPP install in your computer.

4.2.2.1   Create Database using phpMyAdmin

Figure 4.2.2.1: Create "user" Database

Figure 4.2.2.1 shows how to create new database for "user" where the developer will need to enter the main room database name and then press the Create button. After that, to run this php MyAdmin, application need to install XAMPP in advance so that Apache and MySql can connect to localhost.
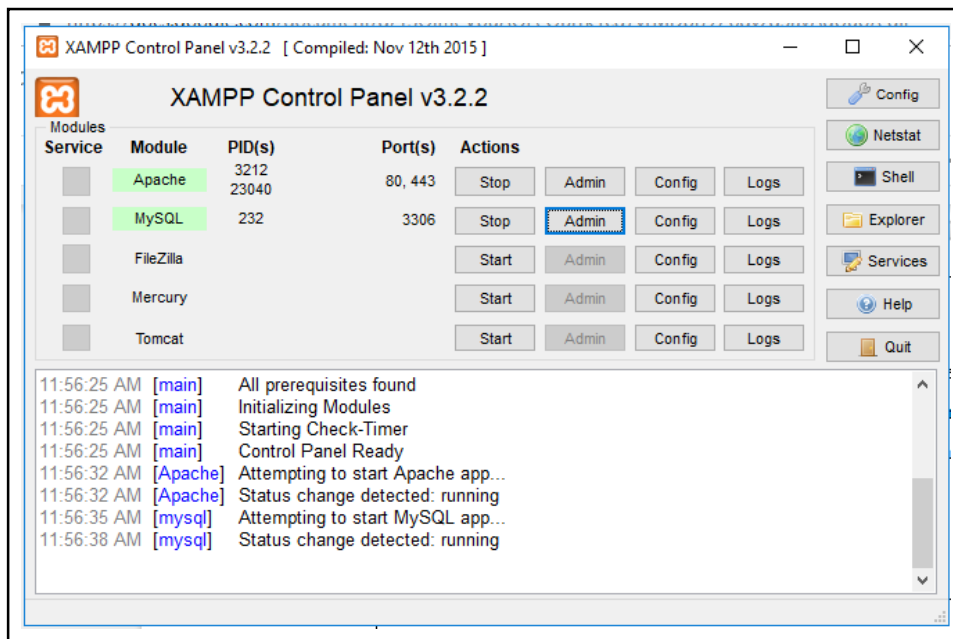
Figure 4.2.2.2: XAMPP server Control Panel Application

4.2.2.2   Create Table

- Table user

Figure 4.2.2.3:Create table "user"

Figure 4.2.2.3 shows how to create new table on "mini" database. The function of this table is to keep data about the data of the user including username, email and password. After enter the table name, developer needs to fill the information of each fields that has been created.
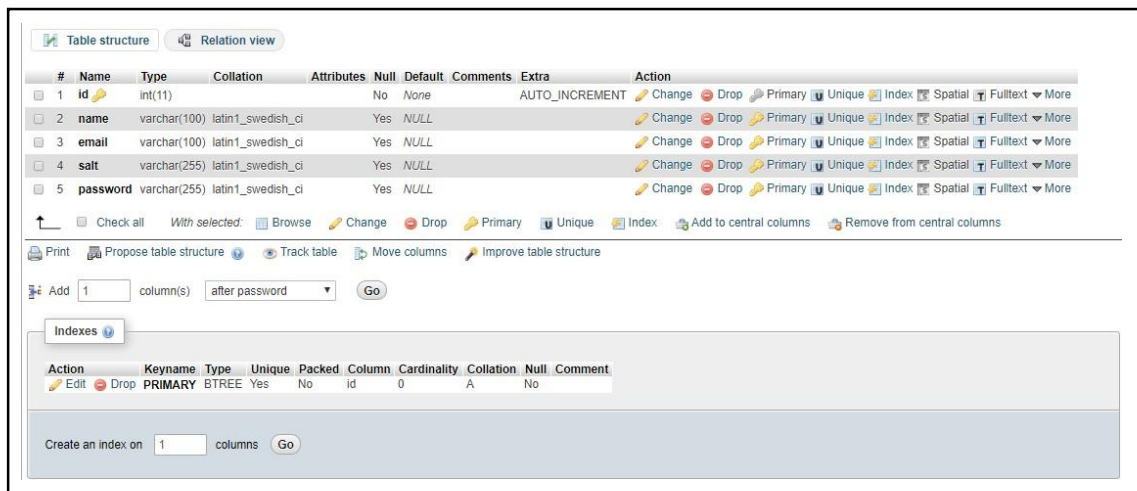
Figure 4.2.2.4:Create column fields

Figure 4.2.2.4 shows how to create column field on admin table on database. The function of this table is to keep data about the data of the user including username, email and password. After enter the table name, developer needs to fill the information of the fields that has been created.

4.2.3　Database Manipulation

In developing the On-Gift system, the major phase to complete system module is the database. This system has add, delete, select, update and view. The developers must manipulate all this data and system using PHP language.

- Connect Database

```php
<?php

    $sql="SELECT * FROM products ORDER BY name ASC";
    $query=mysql_query($sql);

    while ($row=mysql_fetch_array($query)) {

?>
        <tr>
            <td><?php echo $row['name'] ?></td>
            <td><?php echo $row['description'] ?></td>
            <td><?php echo $row['price'] ?>$</td>
            <td><a href="index.php?page=products&action=add&id=<?php echo $row['id_product'] ?>">Add to cart
            </a></td>
        </tr>
<?php

    }

?>
```

Figure 4.2.3.1: Coding for connect database

- Debugging and running the system

After finishing the HTML and PHP coding, the developer needs to run or debug the system to test the running system if there is any syntax error of SQL error in the coding. To test the system, any web browser can be used such as Google Chrome, Mozilla Firefox and Internet Explorer. What is needed is that the developer need to enter the correct URL to access the system.

4.2.4 **SYSTEM FUNCTION**

The system function will be focusing and explaining on all important functions that represent the On-Gift system.

4.2.4.1   Home Page
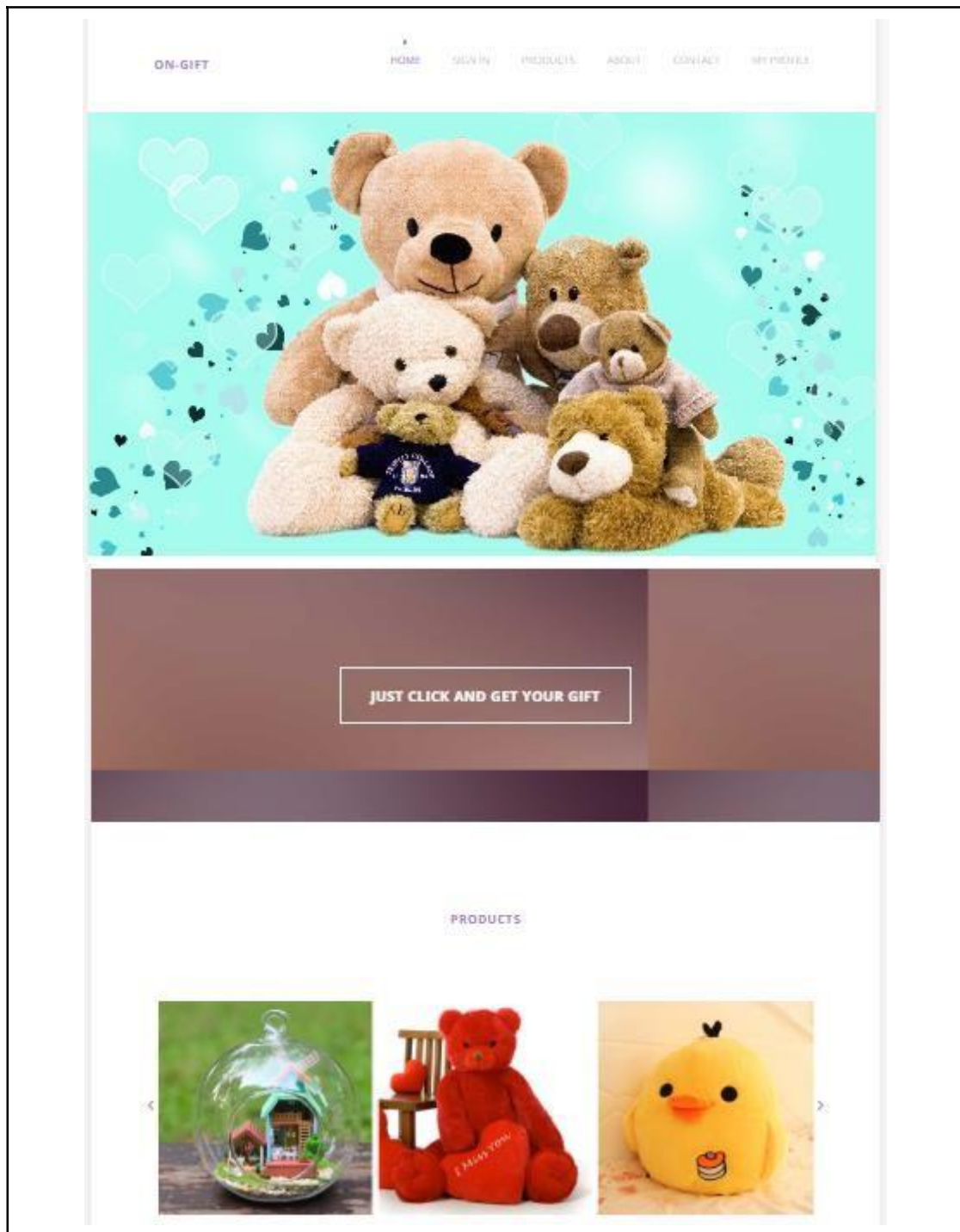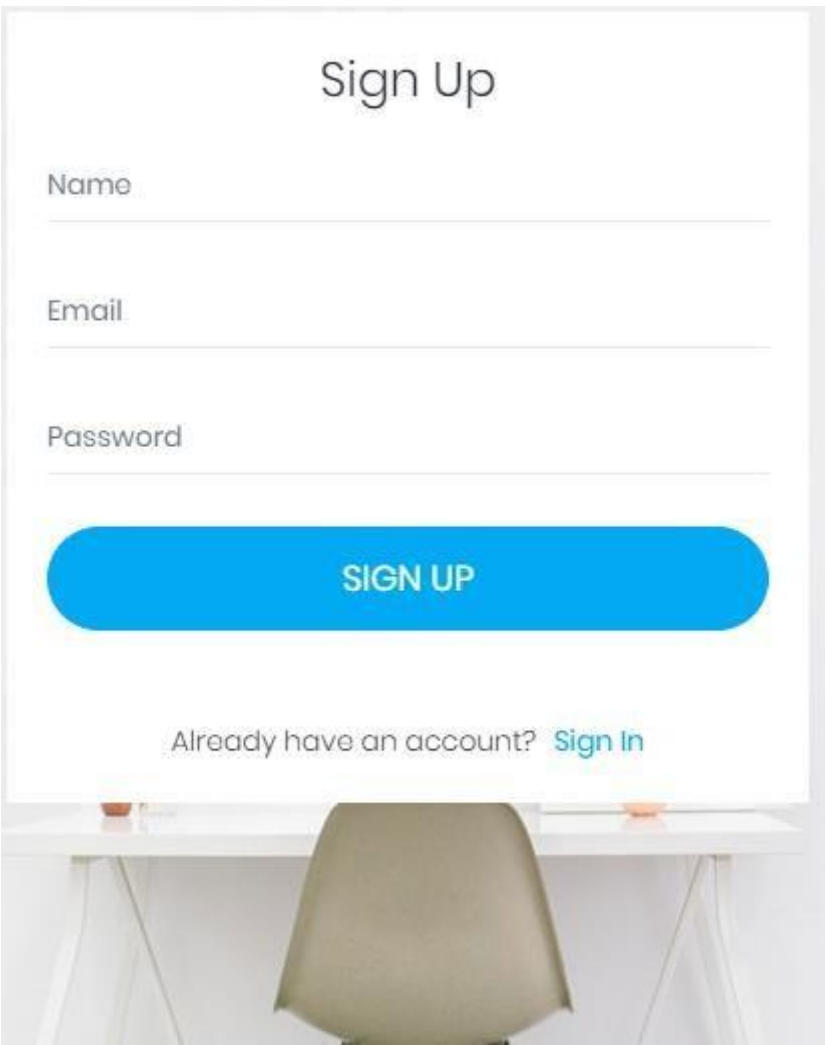
Figure 4.2.4.1: Homepage

4.2.4.2   Sign Up

Figure 4.2.4.2: Sign Up

4.2.4.2   Login

Figure 4.2.4.3:Login

4.2.4.4   Products
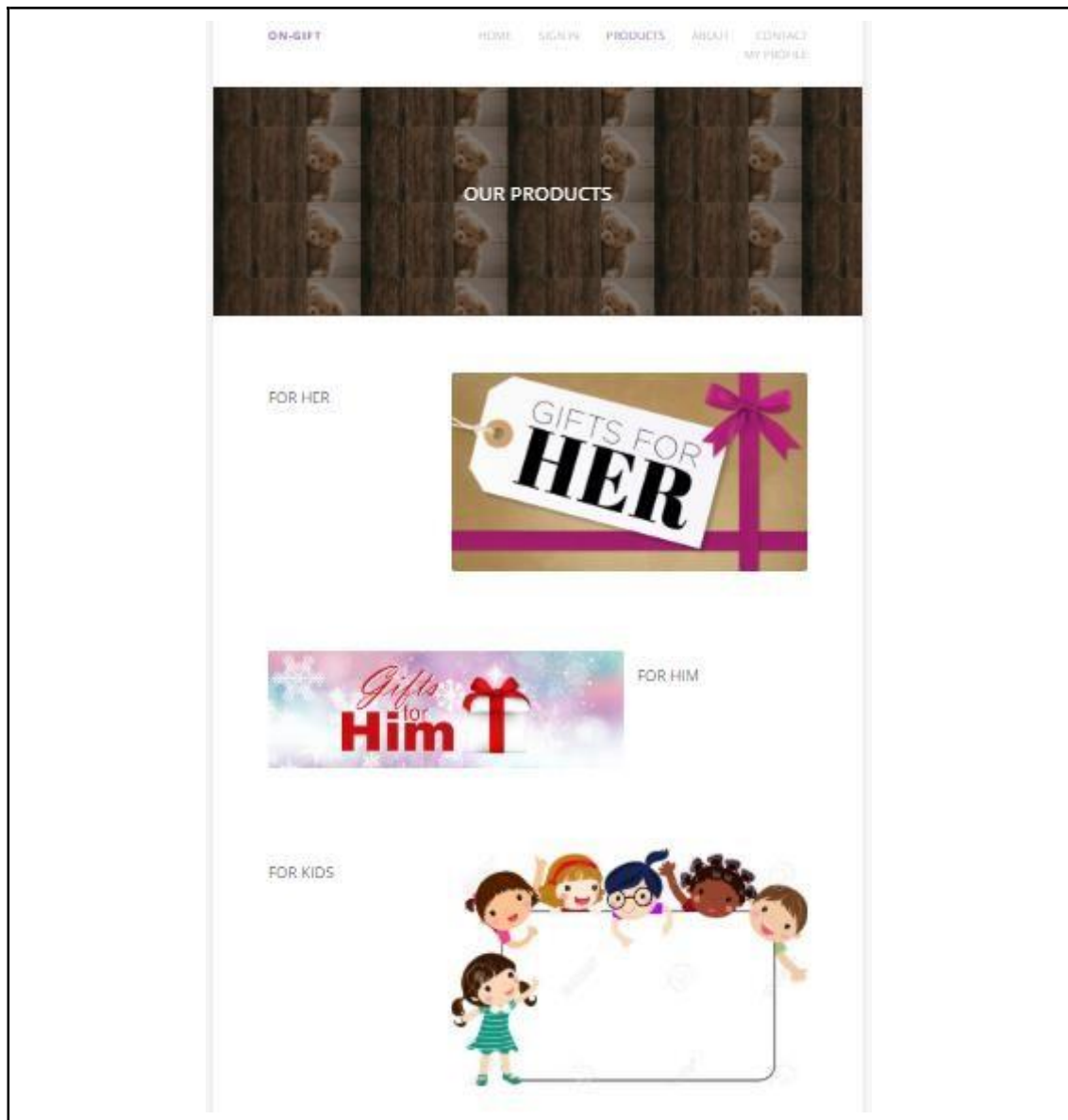
Figure 4.2.4.4: Products

4.2.4.5   About Us
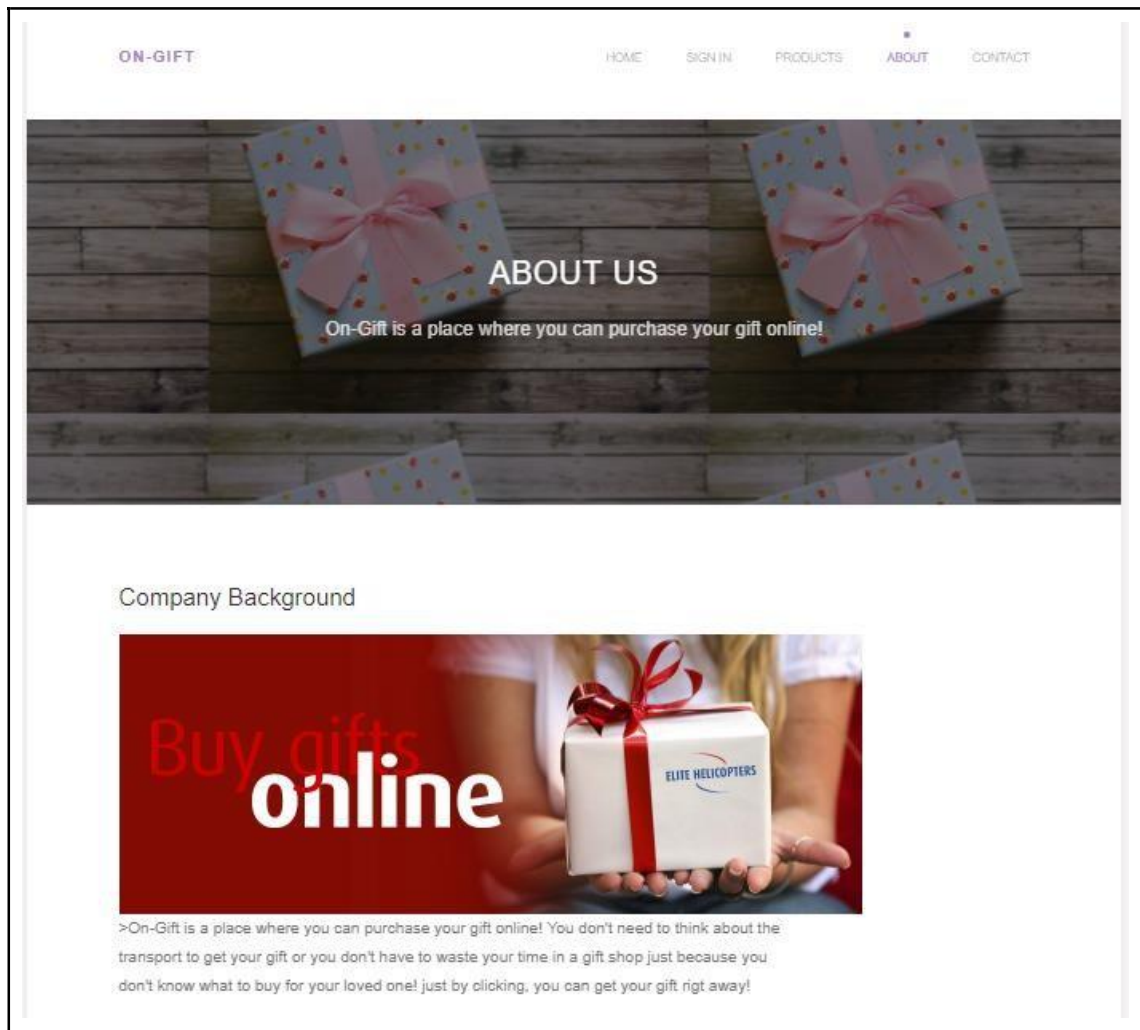
Figure 4.2.4.5:About Us

4.2.4.6   Contact

Figure 4.2.4.6: Contact

4.2.4.7   My Profile
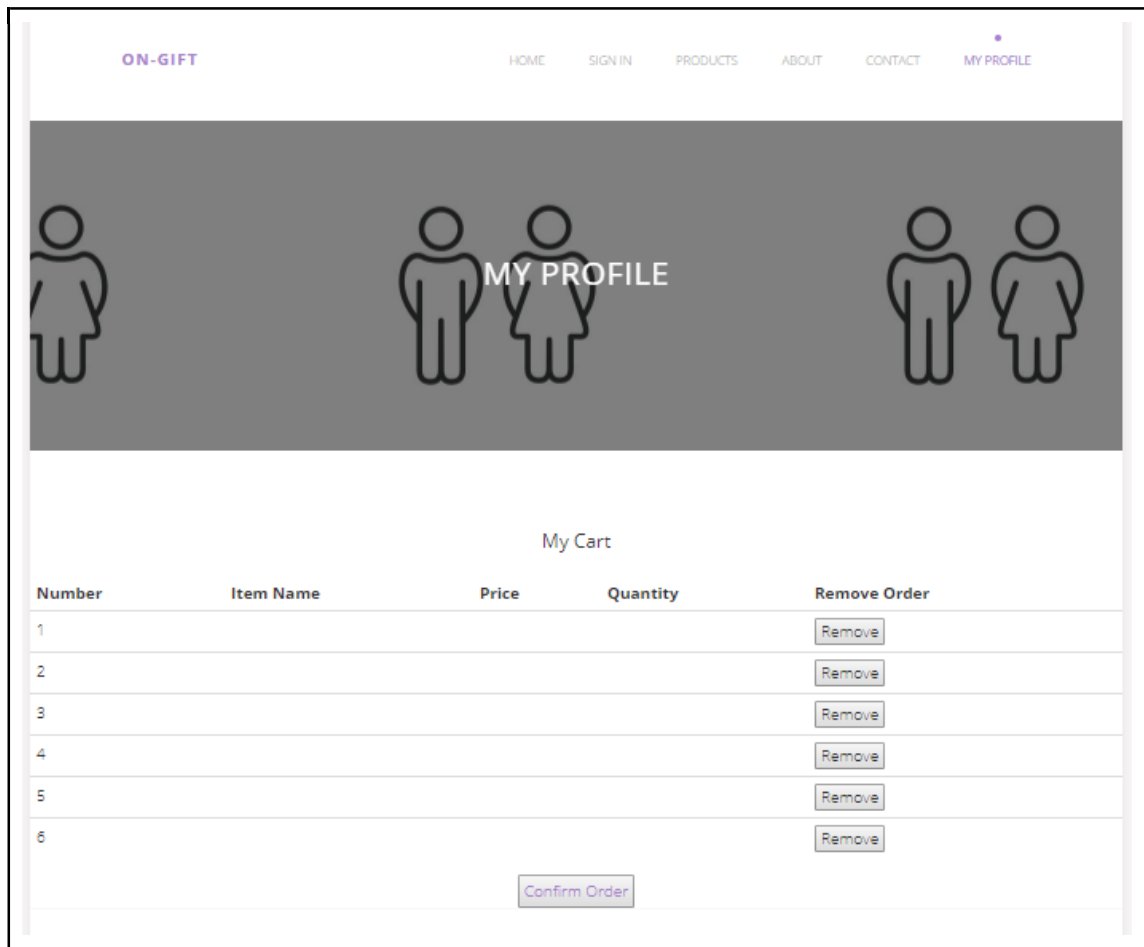
Figure 4.2.4.7: My Profile

4.2.4.8   Receipt

Figure 4.2.4.8: Receipt

Figure 4.2.4.9: Image Tracker for scan using Augment application
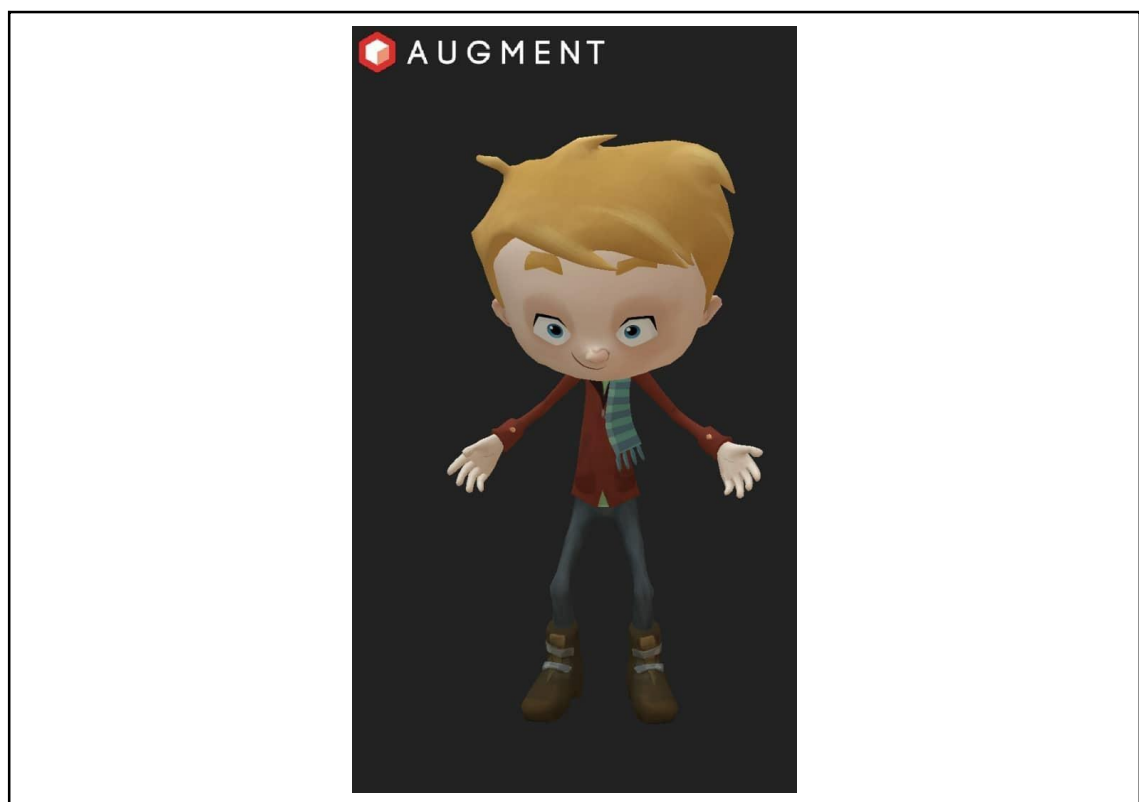
Figure 4.2.4.10: Item show when scanning

4.2.5   Assumption and Dependencies

- The website need internet connection.
- Only the admin can manage the website.
- This website only can use by browser only.
- The language used in this website is English language.

4.2.6   Testing and Result

After completion of implementation and conducting testing to the system, there are three ways to know how far did the system meet and achieve the goal or the objectives given. Overall, this system has been successful of meeting the objectives given.

1) To test the requirement of the On-Gift system application in wireless technology. The result when testing the system is smooth and easy to use.
2) To test the system whether it is web-based system. When testing the system, the system will be easy to use when to make or edit the data especially for the admin.
3) To test the functionality of the system. As a result, the system has good functionality without error or bugged.

4.3   Conclusion

In conclusion, the system fulfill the objectives that are to test the requirement of On-Gift system. To test whether the system is successfully run in web-based and the functionality of the system can run successfully.

CHAPTER 5

CONCLUSION

5.1   Introduction

The On-Gift system is developed to facilitate the user to purchase gifts online. This system will ease the user to choose the type of gift that they want and they do not have to go to the physical gift shop anymore if they want to purchase a gift. This system will also help the user to choose what is the popular choice of gift that they can get if they do not know what type of gift they need to choose for certain categories. User also can print the receipt if they need it.

5.2   Research Constraint

i.   Time constraint - More time is needed in order to build and developed the system.

ii.   Setup constraint - Difficulty occur while connecting the system to the database

iii.   Platform - The system can only run on web browser. It is not compatible with mobile app.

iv.   Language - The system runs in English language and will be hard for the user who could not understand it.

5.3   Future Work

After the installation of the system to the client computer, a further research and development about the system has to be made because the system is not completely developed. The system can be improve by using device such as barcode scanner to scan the product without having the user to click on the button and automatically stored the

data into the database. A future plan to improve for the payment, the user are allowed to choose what kind of payment service they want, whether they want to pay it using debit, cod or etc.. Furthermore, user should also can choose their own wrapper after choosing the gifts. Therefore, an update version of the On-Gift system will be developed to make the system more efficient.

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Rajesh Iyer & Jacqueline, Eastman (2014). The Elderly and Their Attitude Toward s the Internet : The Impact of Internet use, Purchases, and Comparison Shopping . Journal of Marketing Theory and Practice, Vol.14, No.1.

Task	Start	Finish	Duration	% / Res
Phase 1: Requirement Planning	02/23/18	04/04/18	28.5d	16%
Define objectives	02/23/18	03/05/18	7d	50%
Define project scope	02/23/18	03/05/18	7d	50%
Meet client	03/05/18	03/07/18	3d	
Propose project	03/05/18	03/07/18	3d	
Identify problem statement	03/06/18	03/07/18	3d	
Getting Client's requirement	03/08/18	03/12/18	3d	
Proposed solution	03/13/18	03/19/18	5d	
Finalized objective and scope	03/19/18	03/26/18	6d	
Plan method, software, hardware	03/27/18	04/02/18	5d	
Propose document	04/02/18	04/04/18	2.5d	0%
Phase 2: User Design	04/05/18	05/02/18	20d	
Finalize method	04/05/18	04/09/18	3d	
Develop project's outline	04/09/18	04/12/18	4d	
Refine the design of product	04/13/18	04/17/18	3d	15, 12
Define product operation flow	04/18/18	04/20/18	3d	
Finalize the design of product	04/21/18	04/30/18	7d	
Obtain approval for construction	04/30/18	05/02/18	3d	
Phase 3: Construction	05/04/18	09/03/19	348d	
Product construction	05/04/18	05/14/18	7d	
Verify product construction	05/15/18	05/30/18	12d	21
Build product	07/03/18	11/19/18	100d	
Phase 4: Cutover	11/19/18	09/03/19	207d	
Perform product testing	11/19/18	11/26/18	6d	
Finalize product design	11/26/18	09/03/19	202d	

APPENDIX B
USER ACCEPTANCE TEST (UAT)

Functional Testing 1: Sign Up User

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
Sign up into the system		Register success and direct to the login page			

Functional Testing 2: Login User

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
Login into the system		Login success and direct to the Home page			

Functional Testing 3: Login Admin

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
Login into the system		Login success and direct to the Admin page			

Functional Testing 4: Add to cart

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
Add item into user's Cart		Function success and the data direct into the user's cart			

Functional Testing 5: Remove item from cart

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
Remove item from user's cart		Function success and the data is deleted from the user's cart			

Functional Testing 6: Confirm order

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
View items in the cart		Function success and the user allows to view data in the cart			

Functional Testing 7: User payment

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
Pay the items		Function success and the user allows to pay the items that they purchased			

Functional Testing 8: Admin update Item

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
Admin update items/products		Function success and the admin allow to update items/products			

Functional Testing 9: Augmented Reality using Augment

Test Case	Test Data	Expected Result	Actual Result	Output	Comment
User scan image that are provided in the screen using Augment		Function success and the user can see the product on their mobile screen.			

System Testing Approval

	Name	Date
Verified by: _____ Developer		
Approved by: _____ Client		