STUDY LOAN WITH

PERPUSTAKAAN UMP
0000103240

(SLMS)

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# ABSTRAK

Universiti ABC mempunyai masalah dengan pelajar sistem pengurusan pinjaman mereka untuk memindahkan pinjaman kira pelajar masing-masing. Universiti ABC adalah sangat sukar untuk menguruskan pemindahan pinjaman kerana mereka mempunyai banyak akaun pelajar dan mempunyai banyak kategori penyedia pinjaman seperti PTPTN, MARA, JPA, Yayasan Negeri dan lain-lain. Jadi, mereka perlu mengambil banyak masa untuk kejayaan atau melengkapkan pemindahan pinjaman ke akaun pelajar masing-masing. Pertama, mereka perlu mengasingkan mengikut kategori yang memberi pinjaman kerana jumlah pembekal pinjaman sama sekali perbezaan contohnya PTPTN memberi pinjaman bagi setiap semester untuk setiap pelajar adalah RM3500 untuk pelajar ijazah dan RM2500 untuk pelajar diploma. Manakala bagi JPA, mereka menyediakan RM7000 bagi setiap semester untuk setiap pelajar. Oleh itu, mereka sangat sukar dan mengambil masa yang lebih untuk memindahkan pinjaman kepada akaun pelajar. Jadi, daripada masalah itu, Jabatan Hal Ehwal Pelajar di Universiti ABC telah membuat keputusan dan mereka ingin memberikan perkhidmatan yang lebih baik untuk permohonan pinjaman pelajaran. Pinjaman kajian akan meluluskan permohonan itu dan memindahkan pinjaman kira pelajar masing-masing. Jabatan Hal Ehwal Pelajar dikaitkan dengan pembekal pinjaman dan satu kajian Objektif projek ini adalah untuk memanfaatkan perkhidmatan pinjaman kajian automatik.

## ABSTRACT

ABC University have problem with their student loan management system to transfer the loan into respective student's account. ABC University are very difficult to manage the loan transfer because they have a lot of student's account and have many categories of loan providers such as PTPTN, Mara, JPA, Yayasan Negeri and others. So, they need to take much time to success or complete the loan transfer to respective student's account. Firstly, they need to separate by category of loan provider because the amount of loan provider totally difference for example PTPTN provide a loan for every semester to each student is RM3500 for degree student and RM2500 for diploma student. While for JPA, they provide RM7000 for every semester to each student. So, they are very difficult and take a much time to transfer the loan to the student's account. So, from that problem, Student Affairs Department at ABC University have decided and they want to provide a better service for study loan application. The study loan will approve the application and transfer the loan into respective student's account. Student Affairs Department is associated with study loan providers and one objective of this project is to leverage the study loan automated service.

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# LIST OF ABBREVIATIONS

| | |
|---|---|
| SLMS | Study Loan Management System |
| PTPTN | Perbadanan Tabung Pendidikan Tinggi Nasional |
| Mara | Majlis Amanah Rakyat |
| JPA | Jabatan PerKhidmatan Awam |
| RM | Ringgit Malaysia |
| LMS | Loan Management System |
| EMI | Equated Monthly Installment |
| ELMS | Education Loan Management System |
| ASP | Active Server Page |
| SQL | Structure Query Language |
| LAMS | Loan Approval Management System |
| PFC | Power Finance Corporation |
| MVC | Model View Controller |
| API | Application Program Interface |
| JSP | Java Server Page |
| HTTP | Hypertext Transfer Protocol |
| Java EE | Java Enterprise Edition |
| XML | Extensible Markup Language |
| URL | Uniform Resources Locator |
| GSM | Global System for Mobile Communications |

| | |
|---|---|
| ESTI | European Telecommunications Standards Institute |
| 2G | Second-Generation |
| 1G | First-Generation |
| GPRS | General Packet Radio Services |
| EDGE | Enhanced Data rates for GSM Evolution |
| 3G | Third-Generation |
| 4G | Fourth-Generation |
| ETSI | European Telecommunication standard Institute |
| UML | Unified Modeling Language |

# CHAPTER 1

# INTRODUCTION

## 1.1 INTRODUCTION

Nowadays, all the college and university even at Malaysia or international have a student loan system to manage their student's loan. So, some department that responsible to manage this system to manage all the transfer loan to respective student's account. According Michael Simkovic, In the United States, there are two types of student loans: federal loans sponsored by the federal government and private student loans.[1][2] which broadly includes state-affiliated non-profits and institutional loans provided by schools.[3] The overwhelming majority of student loans are federal loans.[1] Federal loans can be "subsidized" or "unsubsidized." Interest does not accrue on subsidized loans while the students are in school. Student loans may be offered as part of a total financial aid package that may also include grants, scholarships, and/or work study opportunities.

Prior to 2010, federal loans were also divided between direct loans (which are originated and funded by the federal government) and guaranteed loans, originated and held by private lenders but guaranteed by the government. The guaranteed lending program was eliminated in 2010 because of a widespread perception that the government guarantees boosted student lending companies' profits but did not benefit students by reducing student loan costs.[1][4]

ABC University have problem with their student loan management system to transfer the loan into respective student's account. ABC University are very difficult to manage the loan transfer because they have a lot of student's account and have many categories of loan providers such as PTPTN, Mara, JPA, Yayasan Negeri and others. So, they need to take much time to success or complete the loan transfer to respective student's account. Firstly, they need to separate by category of loan provider because the amount of loan provider totally difference for example PTPTN provide a loan for every semester to each student is RM3500 for degree student and RM2500 for diploma student. While for JPA, they provide RM7000 for every semester to each student. So, they are very difficult and take a much time to transfer the loan to the student's account.

Student Affairs Department at ABC University have decided and they want to provide a better service for study loan application. The study loan will approve the application and transfer the loan into respective student's account. Student Affairs Department is associated with study loan providers and one objective of this project is to leverage the study loan automated service. This system is designed to help students pay for university fees, books, and living expenses. It may differ from other types of loans in that the interest rate may be substantially lower and the repayment schedule may be deferred while the student is still in school. It also differs in many countries in the strict laws regulating renegotiating and bankruptcy. This system will send a SMS notification to student if there are successfully create the loan account by staff. If staff do the deposit into student account and withdraw from student account, this system also will send a SMS notification to tell student that their loan has been transfer into their account.

According to Goingtouni, tertiary student places in Australia are usually funded through the HECS-HELP scheme. This funding is in the form of loans that are not normal debts. They are repaid over time via a supplementary tax, using a sliding scale based on taxable income. As a consequence, loan repayments are only made when the former student has income to support the repayments. The debt does not attract normal interest, but grows with CPI inflation. Discounts are available for early repayment [5].

According to Goingtouni, Korea's student loans are managed by the Korea Student Aid Foundation](KOSAF) which was established in May 2009. According to the governmental philosophy that Korea's future depends on talent development and no student should quit studying due to financial reasons, they help students grow into talents that serve the nation and society as members of Korea [1] Through the management of Korea's national scholarship programs, student loan programs, and talent development programs, KOSAF offers customized student aid services and student loan program is one of the their major tasks.

## 1.2 PROBLEM STATEMENT

Student Affair Department at ABC University have problem with their student loan management system to transfer the loan into respective student's account. They are very difficult to manage the loan transfer because they have a lot of student's account and have many categories of loan providers such as PTPTN, Mara, JPA, Yayasan Negeri and others. So, they need to take much time to success or complete the loan transfer to respective student's account. Firstly, they need to separate by category of loan provider because the amount of loan provider totally difference for example PTPTN provide a loan for every semester to each student is RM3500 for degree student and RM2500 for diploma student. While for JPA, they provide RM7000 for every semester to each student. So, they are very difficult to manage it and take a much time to transfer the loan to the student's account.

Students also need to wait until the process has been complete, then they get the loan payments into their account. So, this situation very disturb for poor student to get or buy something that related of study for example book, learning tools and the most important is their living, how they want to support their living if they don't have loan payment from loan provider.

Students also do not know when their loan will be transfer into their account because the previous systems don't have a function to give a notification to student. This system will use the GSM Modem as a device to send SMS notification to student. This system will send a SMS notification to student if there are successfully create the loan account by staff. If staff do the deposit into student account and withdraw from student account, this system also will send a SMS notification to tell student that their loan has been transfer into their account.

## 1.3 OBJECTIVE

The objectives of the research are to:

i. To developed and provide a better service for study loan application which is to approve the application and transfer the loan into respective student's account.
ii. To leverage the study loan automated service for SLMS.
iii. Easy for staff to manage student loan for every semester let say to register an new student, register a new student account, to update and delete the student information and their account if they are graduated, to manage the transfer loan into respective student's account and etc.
iv. To accelerate the process loan transfer into respective student's account so that they can use for their living at university.
v. To tell student that loan has been transfer into their account and withdraw from their account by send SMS notification to student.

## 1.4 SCOPE

**i. System Functionality**

This function of this system is to provide an application for SLMS. This system will help the staff to approve the application and transfer the loan into respective student's account. It also helps staff ease to manage the student loan.

**ii. System User**

The system target user is ABC University students. The staff of Student Affair Department at ABC University will used this system to manage the loan transfer into respective student's account. Student will receive their loan payment from the loan providers.

iii. **System Database**

This system is developed to store the database of Study Loan Management. The data will save directly into database. Student Affairs Department at ABC University has used the Apche Tomcat 7.0.55 server to store all the database of the Study Loan Management.

## 1.5 METHODOLOGY

SLMS are used waterfall model for the methodology because the Waterfall Model Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In the Waterfall approach, the whole process of software development is divided into separate phases. In Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially. It is also referred to as a linear-sequential life cycle model. It is very simple to understand and use.

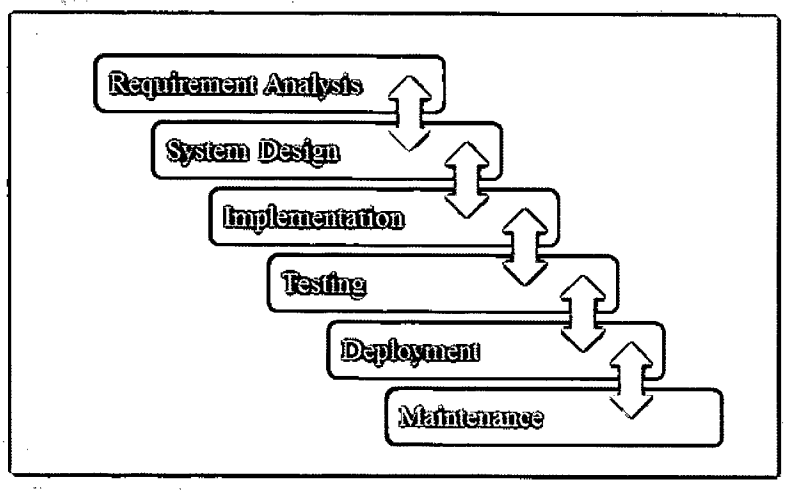


**Figure 1.1:** Methodology of Study Loan Management System (SLMS)

Figure 1.1 shows the methodology is choose for Study Loan Management Systems (SLMS). There are six phase of waterfall model which is requirement analysis, system design, implementation, testing, deployment and the last one is maintenance.

The sequential phases in Waterfall model are:

i. **Requirement Analysis**

All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification doc.

ii. **System Design**

The requirement specifications from first phase are studied in this phase and system design is prepared. System Design helps in specifying hardware and system requirements and also helps in defining overall system architecture.

iii. **Implementation:**

With inputs from system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality which is referred to as Unit Testing.

iv. **Integration and Testing**

All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

v. **Deployment of system**

Once the functional and non-functional testing is done, the product is deployed in the customer environment or released into the market.

vi. **Maintenance**

There are some issues which come up in the client environment. To fix those issues patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

## 1.6 THESIS ORGANIZATION

This thesis consists of five (5) chapters:

**Chapter 1** is about introduction of this system. We discussed the background of the project, problem statement, objective and scope of my project.

**Chapter 2** will present about literature review. There are six topic will cover in chapter 2 which is introduction, Function in Smart Matric Card system, The existing system, The problems with the current systems, Comparison of technologies, Tools are choosing.

**Chapter 3** is about research methodology. It contains waterfall model that we used for this project.

**Chapter 4** will cover about design and implementation plan. For this chapter, we explain in detail the design and structure of this system.

**Chapter 5** will cover about result and discussion. For this chapter, we will analyze the data and discuss the result that I have

**Chapter 6** is about conclusion. This chapter will describe the summary of the result, limitation of the study, suggestions for further study based on the research outcome and concluding remarks.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 INTRODUCTION

This chapter will review on some materials in order to get knowledge and understanding on the techniques had been proposed. All those techniques have the same aim which is used for detection purpose. The requirements in terms of software and hardware will also be listed. Developer can understand all the features that are available in the requirement of this system before proceeding to the proposed project. In SLMS, it will use web base as a platform to manage the loan transfer into respective student's account. This chapter also will take brief explanations on study of previous or existing system that related to the proposed system, based on the development process, tools and platform used. The purpose of reviewing previous work is to guide through the kind of work that others have done related to the project field.