e-Library Community AEON Bandaraya Melaka (e-LC)

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This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Database Management)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2017

DECLARATION

I hereby declare that this project report entitled

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is written by me and is my own effort and that no part has been plagiarized without citations.

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STUDENT: _____ Date:_____

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I hereby declare that I have read this project report and found

this project report is sufficient in term of the scope and quality for the award of

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SUPERVISOR: _____ Date: _____

PUAN HIDAYAH BINTI RAHMALAN

DEDICATION

There are number of people without whom this to make this project to be realized. I dedicated this project for who I greatly appreciated

To my beloved father and mother, En Ahmad Jamal bin Salim and Pn. Habibah binti Maarof who always pray, support and give me inspiration, motivation and advices.

To my respected supervisor, Pn. Hidayah binti Rahmalan who has guided me this project.

To staff in Perpustakaan Komuniti AEON Bandaraya Melaka, who gave me inspiration on all the things that need to be done. Thanks for giving me an opportunity to complete my Final Year Report by given me maximum cooperation. Thank you.

And last but not least to my family and friends, a person who see my potential as a great trustworthy and reliable student which develop me from nothing to something. I dedicated for you guys because you are one of the people who inspired me most.

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ACKNOWLEDGMENTS

Alhamdulillah, In the name of Allah S.W.T The Most Gracious, Pray and peace upon the Prophet Muhammad S.A.W.

I would like to express my gratitude and appreciation to all who give me the responsibility to complete this report. A big thank you to my supervisor,

Mrs. Hidayah binti Rahmalan

In giving suggestions and encouragement throughout my project especially in development of the system. She gives me a lot of encouragement and thank you.

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Last but not least, thank to people who help me directly or indirectly for the support and guidance to improve the report produced and give more confidence in presentation skills by the comments and tips.

ABSTRACT

e-Library Community AEON Bandaraya Melaka (e-LC) is a project which aims is to develop a computerized system to keep all the daily work of the library. This project has many features that generally does not exist in the current existing system of daily community libraries in AEON Bandaraya Melaka such as user login and library staff login. The system also has facilities for admin to login where the admin can monitor the entire system. The library staff also have access to log in the system as a staff to monitor the books borrowing, add new member's library, add, aupdate or delete blacklist member, and record visitor of the library daily and monthly statistical reports to be submit to the superiors. Overall the project is developed to help staff of library Community AEON Bandaraya Melaka and the library users in maintaining the library management in more structured and more organized.

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ABSTRAK

e-Library Community AEON Bandaraya Melaka (e-LC) adalah project yang bermatlamat untuk membangunkan sistem berkomputer untuk mengekalkan semua kerja-kerja harian perpustakaan. Projek ini mempunyai banyak ciri-ciri yang secara amnya tidak wujud dalam sistem harian perpustakaan komuniti di AEON Bandaraya Melaka seperti kemudahan log masuk pengguna perpustakaan dan log masuk staf. Ianya juga mempunyai kemudahan untuk pentadbir log masuk di mana pentadbir boleh memantau keseluruhan sistem. Pihak staf juga mempunyai akses log masuk sebagai staf untuk memantau peminjaman buku, mendaftar ahli perpustakaan, menyenarai senarai hitam, merekod kedatangan pengunjung harian dan menghantar laporan statistic bulanan kepada pihak atasan. Secara keseluruhan projek ini dibangunkan untuk membantu staf Perpustakaan Komuniti AEON Bandaraya Melaka serta pengguna perpustakaan dalam mengekalkan pengurusan perpustakaan dengan cara yang lebih tersusun dan juga lebih teratur.

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CHAPTER I

INTRODUCTION

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1.1 Introduction

This e-Library Community AEON Bandaraya Melaka (e-LC) project is a web-based system for Community Library of Aeon Bandaraya Melaka in which currently still does not have a computerized library management system for handling their routine daily task process. Based on the requirement being gathered on 26/1/2017, it is obviously that all librarian handled the task manually. The librarian register the new member, identify blacklist of borrower, and generate monthly record on a piece of paper or book. With the hope to help people of Malaysia and improve my knowledge, I proposed e-LC which partially will automate task for this community library. First of all, the most important things to highlight here is about the target user for this system which are for the librarian of the community library and the library user. Thus, this system will provide module for the registration of new member which the system will record all the new member into the database. Besides that, this system also capable to track the blacklist borrower which will help

the librarian alert before proceeding any borrowing books to the blacklist borrower. Furthermore, the system has the features for searching all type of book that exist in the library which can be use for the librarian and the borrower to search the book for knowing the status of book. Furthermore, the statistic that can be produced by this system for the librarian to submit to the higher-up ranks every month or year. The statistic that will be produced is in form of graph and excell documents which can be exported by the librarian.

1.2 Problem Statements

1. **Staff manually use paper form to register the new member and write it down to the book for history purpose.**

   The library staff need to do double work for copying the detail of member from form into the log book for history purpose. Plus the staff still using piece of paper form to gather the detail of the new member.

2. **Takes times to know the member that already being blacklist.**

   The library staff need to recheck back the list of blacklist member in the excel form where it will consume time in searching it and the librarian need to search manually on the library racks to know if the book exist or not when the library user ask for the book they desired.

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3. **Takes times to produced monthly report statistic.**
   The library staff need to collect the form and calculate manually to produced the statistic wheres after done the calculation the staff need to transfer the calculation into the excel format.

1.3 Objective

To ensure the project is successfully developed, it's very important to have the project objectives as guidlines during the development of this system. The objectives will give a clear guidance in helping to focus on developing the system. Below is the objectives of this project:

1. To developed online web based system for Community Library of Aeon Bandaraya Melaka.

2. To ease staff of Community Library have easily access to record of new member, blacklist member, book status and book borrower status.

3. To easily produced automatic statistical report for the staff of Community Library on submitting every month record by producing graph, and tabulated data.

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1.4 Scope

Based on the scope, the user can know the limits of this project and the size of the project. The scope will also provide guidance to the user to ensure proper function of the scope of this project. Therefore, the scope were divided into user scope and system scope as written in section 1.4.1 and 1.4.2 respectively.

1.4.1 User Scope

First, the system being developed is divided into 3 types of users which are the staff of Library Community AEON Bandaraya Melaka and the Administrator. Below is the scope of the users of this system:

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- **Staff Library**

  The staff of library have access on register new member, add/delete the blacklist, add new borrower of the book, record the daily visitors of the library and lastly send monthly statistical report to the superiors.

- **Library User**

  The user can search the book and has their details profile and history of book borrows.

- **Administrator**

  The administrator can monitor all the system which is login audit, add/delete staff, and backup and recovery data.

1.4.2 System Scope

There are 4 modules for the e-LC System which are Member Registration Module, Visitor Library Module, Book Module and Statistic Module. Below are the details of each module for the e-LC system.

- **Member Registration Module**
  This module is to view, add, edit, search and delete member.

- **Visitor Library Module**
  This module is for recording the visitor of the library.

- **Book Module**
  This module is to view, add, edit, search and delete the book/borrower book/book status.

- **Statistic Report Module**
  This module is to view, download statistic report for monthly book borrower, monthly library visitor, monthly registration new member and monthly renew member.

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1.5 Contributions

In recent years, the web-based system has been developed due to the drastic growth in technology. In many cases, the website offers many significant advantages compared to the traditional application-based software. Listed below are the core of the potential importance of the e-LC system:

- **Cost Efficiency**

  In previous days, the library users will register on the registration form as shown in Appendix A. However, the registration form can be filled through e-LC System. In addition, other tidies task such as record the attendance and calculating visitors were also written manually by the staff. E-LC system is significantly efficient on this approach helps the staff to reduce time and cost. By using this e-LC system it can automate the existing manual processes such as manual registration in paper form will be automatically convert into digitalized form where it will reduce the cost use of paper. Besides that, the manually process of staff in recording the attendance and calculate monthly statistic will be also can be reduces by using the e-LC system which it also can eliminate inefficiencies in a process during an operation, which enables a more proactive process.

- **Centralized the Operation Process**

  By using the e-LC System hopefully it can be centralized all the process such as borrowing book from any community library or even the librarian can detect any blacklist users from any branch library community. Besides that, e-LC system can be accessed through online medium which the data can be centralized in one database. By launch e-LC system will bring many changes to the coordination and operation of process improvement. This operating process improvements will not only affect worker productivity but also time and costs.

- **Availability of Access**

  Previously, the librarian needs to search or refer to the registration book in order to find information about members and information about books. This approach is very tidies as the might miss the information and had to register the same person again. Thus, the advantage of e-LC system is due to its

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availability features where users and librarian can access to the information anywhere and at any place as long as they have access through the internet.

- **Cross Platform Compatibility**

  Previously, the librarian need to fill in the form for users that want to borrow the book. By using this e-LC system, the features that has in this e-LC system is compatibility with the barcode scanner which the librarian can scan the book barcode to record the users that borrow which book. The advantage of using this compatibility devices is that the librarian just only need smartphone and install the application software scanner to have scan functionality that has been provided by this e-LC system.

1.6 Expected Output

The project will be delivered within 5 month and the expected results is that the librarian of Community Library Aeon Bandaraya will used it and hopefully the system will make the librarian routine task process become more systematically and efficient. The benefit of this system of course it will ease all of the librarian and the library user just access through the system and anything to get the information the system will hopefully provide it. The system also can record anything that involve to the staff daily routine task. Plus, the system also does not need cost because based on my observation the Library Community Aeon already has computer desktop which is just need to install the system. This useful system will be expand for branch such as Melaka Mall, and others.

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1.7 Conclusion

As a conclusion, this chapter covers the initial analysis part of developing e-LC system, which include project background, problem statements, objectives, user scope, system scope, project significance and expected output. Chapter II will explains about project methodology and planning of the e-LC system, which also include project schedule and milestones of this e-LC system.

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CHAPTER II

PROJECT METHODOLOGY AND PLANNING

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2.1 Introduction

Generally, the methodology is a set of general principles which guide developers to choose the specific methods that are appropriate in a task or project [Blackwell, 2001]. The use of this methodology is to help to produce a better-quality product, in terms of documentation standards, acceptance to the consumer, and consistent in term of maintenance software. Choosing an appropriate methodology is very important because the developers will follow the phases of the methodology contained in the guidelines for implementing the system. The Prototype Model is the methodology used in developing the e-LC system is Prototype Model.

The methodology in the development of information systems can be defined as a collection of various components including procedures, techniques, tools and help documentation which aims to assist system builders in the development of systems analysts the system. From the point of view, it helps to ensure that user