

ONLINE APPOINTMENT SYSTEM FOR STUDENT AND LECTURER

MUHAMMAD ZUL FAHMI BIN ZAHER

Bachelor of Computer Science

UNIVERSITI MALAYSIA PAHANG



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 :

Position :

Date :

(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 Universiti Malaysia Pahang or any other institutions.

(Student's Signature)

Full Name : MUHAMMAD ZUL FAHMI BIN ZAHER

ID Number : CB15083

Date :

ONLINE APPOINTMENT SYSTEM
FOR STUDENT AND LECTURER

MUHAMMAD ZUL FAHMI BIN ZAHER

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

Faculty of Computer System & Software Engineering
UNIVERSITI MALAYSIA PAHANG

DECEMBER, 2018

ACKNOWLEDGEMENTS

I am grateful and would like to express my special thanks of gratitude to my supervisor for this project, Dr Adzhar Bin Kamaluddin who had always patiently guide me whenever I ran into trouble spot or had tones of questions regarding my project in which helped me in finishing this project completely and successfully.

I must express my very profound gratitude to my parents and family for providing me unfailing supports and encouragement for me throughout my study years and throughout the process of developing this project as well as writing this thesis.

Next, this appreciation also goes to my friends that always give support, opinion and advices for me to complete this report.

Finally, I would like to express my gratitude to Universiti Malaysia Pahang for giving me such great opportunity to handle own project.

ABSTRAK

Tajuk Projek Sarjana Muda (PSM) ialah “Online Appointment System for Student and Lecturer” yang dibangunkan untuk Fakulti Sistem Komputer dan Kejuruteraan Perisian (FSKKP). Objektif utama sistem ini adalah untuk mengatasi masalah yang dihadapi oleh sistem sedia ada. Medium perantaraan untuk sistem ini adalah talian Internet bagi membolehkan pelajar-pelajar melayari sistem ini di mana sahaja mereka berada selagi terdapatnya talian Internet. Sistem ini dibangunkan berlandaskan web dan dihasilkan menggunakan Bahasa pengaturcaraan web seperti PHP, HTML dan MYSQL sebagai pangkalan data untuk sistem ini beroperasi. Sasaran pengguna sistem ini terdiri daripada pelajar dan pensyarah. Secara keseluruhannya, sistem ini menerangkan latarbelakang projek, metodologi yang digunakan, bagaimana analisis dilaksanakan, rekabentuk pangkalan data dan antaramuka, pelaksanaan dan seterusnya melaksanakan pengujian kepada sistem tersebut. Sistem yang berasaskan komputer lebih sistematik dan teratur serta mengelakkan kehilangan data. Selain dari itu, fungsi-fungsi tambahan yang ada pada sistem seperti penggunaan katalaluan sebagai langkah keselamatan.

ABSTRACT

The title of Projek Sarjana Muda (PSM) is “Online Appointment System for Student and Lecturer” that will be developed to Faculty of Computer Science and Software Engineering (FSKKP). The main objective of the development of this system is to overcome the problems exist in the current manual system. The medium for this system is Internet so students can access the system wherever they are as long as there is Internet connection. This system will be developed as a web-based platform and will be created using server side scripting such as PHP with Apache Web Server, user side scripting such as HTML and MYSQL as a database for the system. The target users of this system are students and lecturers. Generally, this system explanation about background project, methodology that will be used, how the analysis executed, design of database and interface, implementation and testing of system. The online system become systematic and also regular missing data. Besides, extra features in the system such as security protection by using password is included.

TABLE OF CONTENT

| | |
|------------------------------------|------------------------------|
| DECLARATION | |
| TITLE PAGE | |
| ACKNOWLEDGEMENTS | ii |
| ABSTRAK | iii |
| ABSTRACT | iv |
| TABLE OF CONTENT | v |
| LIST OF TABLES | viii |
| LIST OF FIGURES | ix |
| LIST OF SYMBOLS | Error! Bookmark not defined. |
| LIST OF ABBREVIATIONS | x |
| CHAPTER 1 INTRODUCTION | 1 |
| 1.1 INTRODUCTION | 1 |
| 1.2 PROBLEM STATEMENT | 2 |
| 1.3 OBJECTIVE | 2 |
| 1.4 SCOPE | 2 |
| 1.5 SIGNIFICANCE | 4 |
| 1.6 REPORT ORGANIZATION | 4 |
| CHAPTER 2 LITERATURE REVIEW | 6 |
| 2.1 INTRODUCTION TO OAS | 6 |
| 2.2 TYPE OF MANAGEMENT SYSTEM | 6 |
| 2.2.1 Standalone System | 6 |

| | | |
|-------|---|-----------|
| 2.2.2 | Web Based System | 7 |
| 2.2.3 | Mobile Application System | 7 |
| 2.3 | EXAMPLE OF ONLINE APPOINTMENT SYSTEM | 8 |
| 2.2.1 | Clinikage Clinic Management System | 8 |
| 2.3.2 | Salonlite | 9 |
| 2.3.3 | OpenMRS Medical Record System | 10 |
| 2.4 | COMPARING THE EXISTING SYSTEMS | 11 |
| 2.5 | CONCLUSION | 12 |
| | CHAPTER 3 METHODOLOGY | 13 |
| 3.1 | INTRODUCTION | 13 |
| 3.2 | METHODOLOGY | 14 |
| 3.2.1 | Discussion on Rapid Application Development | 14 |
| 3.2.2 | Rapid Application Development Phases | 14 |
| 3.3 | HARDWARE AND SOFTWARE | 18 |
| 3.3.1 | Hardware Requirement | 18 |
| 3.3.2 | Software Requirement | 19 |
| 3.4 | GANTT CHART | 20 |
| 3.5 | TESTING PLAN | 20 |
| | CHAPTER 4 RESULTS AND DISCUSSION | 22 |
| 4.1 | INTRODUCTION | 22 |
| 4.2 | IMPLEMENTATION | 22 |

| | | |
|--------------------------------|-------------------------------|-----------|
| 4.3 | TESTING AND RESULT DISCUSSION | 28 |
| CHAPTER 5 CONCLUSION | | 31 |
| 5.1 | INTRODUCTION | 31 |
| 5.2 | RESEARCH CONSTRAINTS | 31 |
| 5.3 | FUTURE WORK | 32 |
| REFERENCES | | 33 |
| APPENDIX A: GANTT CHART | | 34 |
| APPENDIX B: SRS | | 35 |
| APPENDIX C: SDD | | 55 |
| APPENDIX D: UAT | | 73 |
| APPENDIX E: USER MANUAL | | 86 |

LIST OF TABLES

| Table No | Title | Page |
|-----------------|--|-------------|
| 2.1 | Comparison between Existing Systems | 11 |
| 2.2 | Advantage of Existing Systems | 11 |
| 2.3 | Disadvantages of Existing Systems | 12 |
| 3.1 | Hardware Requirement for the Development | 19 |
| 3.2 | Software Requirement for the Development | 20 |
| 3.3 | Use Case Login | 21 |

LIST OF FIGURES

| Figure No | Title | Page |
|------------------|--|-------------|
| 2.1 | Clinikage Management System | 9 |
| 2.2 | Salonlite Multiple Link Appointment System | 9 |
| 2.3 | OpenMRS Medical Record System | 10 |
| 3.1 | Phases in RAD Model | 15 |
| 3.2 | Use Case Diagram for Online Appointment System | 16 |
| 3.3 | Context Diagram for OAS | 17 |
| 4.1 | Xampp Control Panel | 23 |
| 4.2 | Address Name When Running on Server | 24 |
| 4.3 | PhpMyAdmin Database Environment | 24 |
| 4.4 | Example of Database Query for OAS | 25 |
| 4.5 | HTML Code for OAS | 26 |
| 4.6 | CSS Code for OAS | 27 |
| 4.7 | Part of PHP Code in OAS | 28 |
| 4.8 | Student Login Page for OAS | 29 |
| 4.9 | Book Appointment Page | 29 |

LIST OF ABBREVIATIONS

| | |
|-------|--|
| CASE | Computer Aided Software Engineering |
| CSS | Cascading Style Sheets |
| OAS | Online Appointment System |
| GUI | Graphical User Interface |
| HTML | Hyper Text Markup Language |
| MySQL | My Structured Query Language |
| PHP | Hypertext Preprocessor |
| UAT | User Acceptance Test |
| XAMPP | Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P) |

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Online Appointment System for Student and Lecturer is a proposed system for the Projek Sarjana Muda (PSM) that allow students to book appointment. This system required internet connection as the medium to access. Students can access to the system anywhere as long they have internet connection.

This system is developed as web based system that use PHP as programming language and side scripting such as HTML and CSS to build interface and also use MySQL as the database.

Lecturer need to update their schedule to this system. It will helps students to check the availability of lecturer before making an appointment booking. It also will help to reduce time for both users either students or lecturers.

Therefore, the system made processes become a lot easier, communication between students and lecturers become smooth and managed. The time consuming will be reduced for students and lecturer

1.2 PROBLEM STATEMENT

Usually the process of booking appointment is done manually. The development of this system is to computerize the manual system. This is some problem occur for the manual system.

- i) Student hard to get in touch with lecturers.

Usually student hard to meet the lecturer at their office. Most of the time, some lecturer does not leave a notice if they have emergency leave. Students also do not know lecturer's timetable.

ii) Difficult to manage report of appointment

Lecturers will write the appointment on a paper or just keep it in notebook. Sometimes this approach will make lecturer forget about the appointment or lost the notebook. With this new proposed system, record of appointment time will be more systematic and regular that means the lecturers did not worry about losing their notebook. This system will remind the lecturers and students about their appointment.

iii) Apply appointment with lecturers manually

Students need to meet lecturer and request to get permission in order to have an appointment with him/her. If she/he not available in their room, student must leave note to the lecturer or come again to meet the lecturer. Therefore students need to spend lots of time for waiting time to meet lecturer.

1.3 OBJECTIVES

The objectives of this system are:

- i. To build computerized lecturer's appointment system that can replace manual system.
- ii. To develop an online application system with provides user level and security level.
- iii. To test the prototype using formal testing method.

1.4 SCOPE

The scope of this project had been agreed and discussed. The scope for this proposed project are:

Users:

There are three users in this system which is admin, students and lecturers.

Function Available:

Registration Management

Students need to register in order to proceed for the process of applying or booking appointment.

Login

Students and lecturers need to enter the correct username and password to login on the system.

Appointment Management

Students can make appointment by referring the lecturer's availability. Students or lecturers also can cancel the appointment if they want to cancel.

Profile Management

Students and lecturers can update their profile such as email, contact no and also room.

Add Lecturer

Admin will add lecturer to the system if there any new lecturer in the faculty.

Log Activity Report

Admin can view all the logs of students and lecturers to the system.

Development:

Software

The development of graphical user interface (GUI) is using HTML and CSS while the system was developed using PHP programming language.

Hardware

Computer and printer are the hardware that been used in development of this system.

REFERENCES

Vliet, H. V. (2008). Software Engineering: Principles and Practice (3rd ed., Vol. 1).

Southern Gate, West Sussex: John Wiley & Sons

Sommerville. I. (2010). Software Engineering (9th ed.). Boston, Massachusetts:

Pearson Education

What is Iterative model- advantages, disadvantages and when to use it? (n.d.). Retrieved April 22, 2016, from <http://istqbexamcertification.com/what-is-iterative-model-advantages-disadvantages-and-when-to-use-it/>

SDLC - RAD Model. (n.d.). Retrieved April 22, 2016, from

http://www.tutorialspoint.com/sdlc/sdlc_rad_model.htm

Joint Application Design. (n.d.). Retrieved April 24, 2016, from

https://en.wikipedia.org/wiki/Joint_Application_Design