

E-APPOINTMENT SYSTEM

NUR AMANINA BINTI ZAINAL

BACHELOR OF COMPUTER SCIENCE

UNIVERSITI MALAYSIA PAHANG



SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis/project and in my opinion, this thesis/project is adequate in terms of scope and quality for the award of the degree of Computer Science (Graphic & Multimedia Technology) with Honors.

(Supervisor's Signature)

Supervisor Name : PM DR NORAZIAH BINTI AHMAD

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 : NUR AMANINA BINTI ZAINAL

ID Number : CD15059

Date :

E-APPOINTMENT SYSTEM

NUR AMANINA BINTI ZAINAL

Thesis submitted in fulfillment of the requirements
for the award of the
Bachelor Degree in Computer Science
(Graphic & Multimedia Technology)

Faculty of Computer Systems & Software Engineering
UNIVERSITI MALAYSIA PAHANG

JANUARY 2019

ACKNOWLEDGEMENTS

First of all, Alhamdulillah and praise to the Greatest Allah S.W.T for establishing me to complete this project. Most importantly, sincere thanks to my beloved family for their encouragement and fully support. None of this could have happened without my family.

A special thanks to PM Dr. Noraziah Binti Ahmad, my supervisor for the guidance and constant supervision as well as for providing me a necessary information regarding the project and also the support to complete this project. Without her assistance and dedicated involvement in every step, this project would have never been accomplished.

Therefore, I would like to thank my close peers and classmates for being supportive and encouraging throughout my study here in University of Malaysia Pahang. My sincere gratitude goes to University of Malaysia Pahang for providing the platform where I able to improve my skills and expand my knowledge.

ABSTRAK

Di era kini, penggunaan internet semakin meluas di serata pelosok dunia. Kebanyakan industri menggunakan sistem atas talian untuk mengakses maklumat dan sebagainya dengan internet. Tajuk projek sarjana muda ini ialah Sistem Temujanji. Objektif utama sistem ini dibangunkan untuk memudahkan pelajar Universiti Malaysia Pahang (UMP) untuk membuat temujanji dengan pensyarah. Terdapat pelbagai cara bagi pelajar-pelajar membuat temujanji dengan pensyarah di UMP seperti bertemu pensyarah secara peribadi, membuat panggilan telefon atau mesej melalui rangkaian sosial. Tetapi, dengan adanya sistem ini, temujanji yang dibuat menjadi lebih teratur dan direkod untuk dijadikan rujukan. Sistem ini dibangunkan berlandaskan web dan dihasilkan menggunakan bahasa pengaturcaraan web seperti PHP, HTML dan MYSQL sebagai pangkalan data untuk sistem ini. Sasaran pengguna sistem ini terdiri daripada pelajar, pensyarah dan pentadbir system. Kaedah atau teknik yang digunakan untuk membangunkan system ini ialah Pembangunan Aplikasi Rapid (RAD). Terdapat empat fasa dalam RAD iaitu fasa keperluan, fasa reka bentuk, fasa pembinaan dan fasa peralihan. Kaedah ini dipilih kerana ia membolehkan sistem ini diwujudkan dalam masa yang terhad. Konklusinya, projek ini dapat menjimatkan tenaga, masa dan mengurangkan kos operasi.

ABSTRACT

In today's era, internet usage is widespread throughout the world. Most industries use the online system to access information and other things with internet. The title of this bachelor project is E-Appointment System. The main objective of this system was developed to facilitate University Malaysia Pahang (UMP) students to make an appointment with lecturers. There are various ways for students to make an appointment with lecturers at UMP such as meeting lecturers personally, making phone calls or messages via social networks. However, with this system, appointments are made more organized and recorded for reference. This system is built on the web and is generated using web programming languages such as PHP, HTML and MYSQL as the database for this system. The target user of this system consists of students, lecturers and system administrators. The method or technique used to develop this system is Rapid Application Development (RAD). There are four phases in the RAD which are requirement phase, the design phase, the development phase and the cutover phase. This method is selected because it allows this system to be created within a limited time. In conclusion, this project can save energy, time and reduce operating costs.

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 ABBREVIATIONS	x
CHAPTER 1 INTRODUCTION	1
1.1 BACKGROUND OF STUDIES	1
1.2 PROBLEM STATEMENT	2
1.3 OBJECTIVES	3
1.4 SCOPES OF PROJECT	3
1.5 THESIS ORGANIZATION	4
CHAPTER 2 LITERATURE REVIEW	5
2.1 INTRODUCTION	5
2.2 STUDIES ON THE EXISTING SYSTEMS	5
2.2.1 Online Appointment for Manipal's Hospital	6
2.2.2 Book Spa, Facial, Mani-Pedi and Salon Appointment	8
2.2.3 BookDoc Search & Book System	10

2.2.4	Comparison between the Existing Systems	11
2.3	TECHNIQUE	13
2.3.1	Programming Languages	14
2.3.2	Database Management System	14
2.3.3	Web Server	14
2.4	TECHNOLOGY	14
 CHAPTER 3 METHODOLOGY		15
3.1	INTRODUCTION	15
3.2	METHODOLOGY	15
3.3	Rapid Application Development Model (RAD)	16
3.3.1	Requirement Planning	16
3.3.2	User Design	17
3.3.3	Construction	32
3.3.4	Cutover	33
3.4	HARDWARE AND SOFTWARE	33
3.5	GANTT CHART	34
 CHAPTER 4 RESULTS AND DISCUSSION		35
4.1	INTRODUCTION	35
4.2	IMPLEMENTATION	35
4.2.1	Development Environment	35
4.2.2	Database Design	37
4.3	INTERFACE DESIGN DESCRIPTION	38
4.3.1	Homepage/ Main Page Interface	38
4.3.2	Admin Page	39

4.3.3	Student Page	43
4.3.4	Lecturer Page	46
4.4	TESTING AND RESULT DISCUSSION	48
4.5	USER MANUAL	48
CHAPTER 5 CONCLUSION		49
5.1	INTRODUCTION	49
5.2	RESEARCH CONSTRAINT	49
5.2.1	Constraints	49
5.2.2	Development constraint	50
5.3	FUTURE WORK	50
REFERENCES		51
APPENDIX A GANTT CHART		52
APPENDIX B USER ACCEPTANCE TEST (UAT)		54
APPENDIX C USER MANUAL		64

LIST OF TABLES

Table 1.1 Problems Statement with Description and Effect	2
Table 2.1 Online Appointment for Manipal's Hospital criteria	7
Table 2.2 Book Spa, Facial, Mani-Pedi and Salon Appointment criteria	9
Table 2.3 BookDoc Search & Book System criteria	11
Table 2.4 Comparison between the Existing System	11
Table 2.5 Comparison in Advantages and Disadvantages between the Existing Systems	13
Table 3.1 Function Table for Student	21
Table 3.2 Function Table for Lecturer	22
Table 3.3 Function Table for Admin	22
Table 3.4 Data Dictionary for Student Information	26
Table 3.5 Data Dictionary for Lecturer Information	26
Table 3.6 Data Dictionary for Admin	27
Table 3.7 Data Dictionary for Appointment Information	27
Table 3.8 Story Board for E-Appointment System	28
Table 3.9 Hardware Requirement Table	33
Table 3.10 Software Requirement Table	34

LIST OF FIGURES

Figure 2.1 Online Appointment for Manipal’s Hospital page	6
Figure 2.3 BookDoc Search & Book System page	10
Figure 3.1 Rapid Application Development Model Diagram	16
Figure 3.2 Context Diagram for E-Appointment System	18
Figure 3.3 Use Case Diagram for E-Appointment System	19
Figure 3.4 Flowchart for E-Appointment System	20
Figure 3.5 Data Flow Diagram for E-Appointment System	23
Figure 3.6 Dialogue Diagram for E-Appointment System	24
Figure 3.7 Entity Relationship Diagram for E-Appointment System	25
Figure 3.8 Work Breakdown Structure for E-Appointment System	32
Figure 4.1 XAMPP Control Panel	36
Figure 4.2 Notepad++	36
Figure 4.3 phpMyAdmin Working Environment	37
Figure 4.4 Database Environment	38
Figure 4.5 Home Page	38
Figure 4.6 Admin Login Page	39
Figure 4.7 Wrong Password Message	40
Figure 4.8 Admin Dashboard Page	40
Figure 4.9 Admin Add Lecturer Page	41
Figure 4.10 Admin Manage Lecturer Page	41
Figure 4.11 Admin Appointment History Page	42
Figure 4.12 Admin User Session Logs Page	42
Figure 4.13 Student Login Page	43
Figure 4.14 Student Registration Page interface	43
Figure 4.15 Student Dashboard Page	44
Figure 4.16 Student Book Appointment Page	44
Figure 4.17 Student Appointment History Page	45
Figure 4.18 Student Change Password Page	45
Figure 4.19 Lecturer Login Page	46
Figure 4.20 Lecturer Dashboard Page	46
Figure 4.21 Lecturer Appointment History Page	47
Figure 4.22 Lecturer Change Password Page	47

LIST OF ABBREVIATIONS

SMS	Short Messaging System
GUI	Graphical User Interface
CSS	Cascading Style Sheets
PHP	Hypertext Preprocessor
HTML	Hyper Text Markup Language
MySQL	My Structured Query Language
DBMS	Database Management System
RAD	Rapid Application Development
DFD	Data Flow Diagram

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDIES

Appointment system is an alternative support system designed and developed for handling and managing a process of appointing consultant. This system will anticipate an efficiency and accuracy of selecting qualified consultants for the projects, which will be performed. The main function of the system is about appointing the right consultants for the right project (Bakar, 2009).

Previously, in my findings, the current available appointment is lack of important and complete features. Therefore, somehow when we request an appointment using the system, the system does not generate the notification what the result obtain from the appointment request. To eliminate this errors based on the current appointments system, there is need to develop a system that enables appointment processes easier.

For students, they may frequently have numerous questions and doubts to lecturer regarding their labs, writing reports, exams, projects and many other and they always need to clarify those doubts. So, they have to find a proper time to perform a meeting with the particular lecturer. But, in university, students will have to go and return back to faculty many times to check the lecturer availability that will make them face some difficulties too according to their free time. This is because of the students did not know the lecturer's schedule or free time and they need to discuss it using instant messaging (Choudhari, Kusrkar, Sonje, Mahajan, & Vaz, 2014).

1.2 PROBLEM STATEMENT

Table 1.1 shows the problem related, description and effect with the current procedure of making appointment between students and lecturers.

Table 1.1 Problems Statement with Description and Effect

No	Problem	Description	Effect
1	Time consuming	Students always need to go to the lecturer's room or call their hand phone number to make sure either they are free or not. Sometimes, the lecturers take a long time to reply to students' calls or SMS (Short Messaging System).	It make students waiting for a long reply from the lecturers without knowing the status of their lecturers either busy or unavailable.
2	The current process of making an appointment in the system does not generate the notification.	There is no notification for user to know what the status of appointment that they have made.	It make difficult to user that they always need to check the system to see the appointment status.
3	Lack of the important features and unorganized interface in the system	There is useless information and also some of the unimportant navigation panel that have in the system.	It disturb and make difficult to the user to make the important appointment.

1.3 OBJECTIVES

There are several objectives in developing this system which are:

- i. To help user making an appointment more easy and systematic.
- ii. To design a web-based application for students to make an appointment with lecturers.
- iii. To develop the proposed E-Appointment System in a web-based platform.

1.4 SCOPES OF PROJECT

- i. System

The functionality of the system is it will automatically send the request of appointment do it by students, when lecturer log in into the system, they can make a decision if they want to reject the appointment made by the students before. The system will generate the status and come out with the notification to students.

- ii. User

Students and lecturers will be the target user of this system. To make the appointment, students must login to this system's account and only users that have the registered account can make appointment with the lecturers. Administrator have to control the activities in the system such as adding new lecturer into the database.

- iii. Platform

The platform of this E-Appointment system is a web-based. It is proved that web-based projects is more efficient because it will helps students to make an appointment online in more systematic and professional ways rather than using SMS, WhatsApp and other online communication.

REFERENCES

- Bakar, A. B. A. (2009). The development of consultant appointment system. In Proceedings - 2009 International Conference on Computer and Automation Engineering, ICCAE 2009 (pp. 264–268). <https://doi.org/10.1109/ICCAE.2009.61>
- Choudhari, S. B., Kusurkar, C., Sonje, R., Mahajan, P., & Vaz, J. (2014). Android Application for Doctor ‘‘ s Appointment. *International Journal of Innovative Research in Computer and Communication Engineering*, 2(1), 2472–2474. Retrieved from http://www.ijircce.com/upload/2014/january/11_Android.pdf
- Harding, K. E., & Bottrell, J. (2016). Specific timely appointments for triage reduced waiting lists in an outpatient physiotherapy service. *Physiotherapy (United Kingdom)*, 102(4), 345–350. <https://doi.org/10.1016/j.physio.2015.10.011>
- Shannon, R. (2007). What is HTML. Saatavissa: <http://www.yourhtmlsource.com/starthere/whatishtml.html> [viitattu 21.5. 2014].
- What Is Rapid Application Development (RAD) and How Do You Use It? (2017, November 02). Retrieved from <https://airbrake.io/blog/sdlc/rapid-application-development>
- What is Web server? - Definition from WhatIs.com. (n.d.). Retrieved from <http://whatis.techtarget.com/definition/Web-server>
- What is E-mail or Email? (2018, April 01). Retrieved from <https://www.computerhope.com/jargon/e/email.htm>
- Z. (2016). What is a Database Management System? - Purpose and Function.[doi:http://study.com/academy/lesson/what-is-a-database-management-system-purpose-and-function.html](http://study.com/academy/lesson/what-is-a-database-management-system-purpose-and-function.html)