



Faculty of Computer Science and Information Technology

FIND YOUR LECTURER APP

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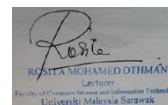
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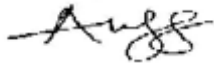
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ABSTRACT

The Find Your Lecturer App is developed to allow students to book appointment with their lecturers. The main objective of this project is to develop an application that allows students to make requests to have an appointment with the lecturer after viewing the lecturer's availability. The lecturer will then choose either to reject or accept the request. Rapid Application Development (RAD) methodology will be used in this project for development purpose. The significance of this proposed project is helping to reduce time that occurs in daily routine when using the manual method. The mobile app will have user-friendly graphical user interface to ease users when using the application.

ABSTRAK

“Find Your Lecturer App” dibangun untuk membolehkan pelajar menempah pelantikan dengan pensyarah mereka. Objektif utama projek ini adalah untuk membangunkan aplikasi yang membolehkan para pelajar membuat permintaan untuk membuat temujanji dengan pensyarah selepas melihat ketersediaan pensyarah. Pensyarah kemudian memilih untuk menolak atau menerima permintaan tersebut. “Rapid Application Development (RAD” akan digunakan dalam projek ini untuk tujuan pembangunan. Kepentingan projek yang dicadangkan ini membantu mengurangkan masa yang berlaku dalam rutin harian apabila menggunakan cara manual. Ia juga akan mempunyai antara muka pengguna grafik yang mesra untuk memudahkan pengguna yang menggunakan aplikasi itu.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Nowadays, most organizations such as schools, hospitals, and universities, have started to do everything in a computerized way as it is easy and faster. In order to meet important people, an appointment should be made. Nevertheless, manual appointment system is not very efficient as it does not save time and money.

Find Your Lecturer App is a proposed system for the Final Year Project (FYP) that allows students to book appointment with their lecturers to reduce difficulties between students and lecturers. The medium for this mobile application is the Internet so students can access the application wherever they are as long as there is Internet connection.

The target users of this project are students, lecturers, and administrator. The mobile application will help students and lecturers of FCSIT in making an appointment process between them become easily and efficiency depends on the lecturer's timetable. Only students who had registered can use this application. Then, user must login before use this mobile application.

1.2 Problem Statement

Generally, the procedure of making appointment between lecturers and students is still using manual way. This mobile application is developed to solve the list of following problems:

i. Difficult to manage appointment record.

From manual framework, appointment record of students simply just kept in lecturer's notepad. With this proposed framework, record of appointment time will be store more systematic and normal that implies the lecturer did not worry over losing their notepad. This framework will remind the lecturers and students about their appointment.

ii. Apply appointment with lecturer manual

The procedure to apply or booking appointment with lecturers is still done manually. Students need to meet lecturers and request to get permission to have an appointment with him/her or email the lecturer. Thus, an expert framework is expected to diminish hanging tight time for the lecturers.

iii. Students difficult to meet lecturers

Some lecturers can be extremely busy or have different obligations and duties other than conducting lectures. This makes it difficult for students to meet them in their office. Sitting tight for a long response from the lecturers who are busy or inaccessible is viewed as tedious to certain students. This framework will lessen students' hanging tight time for the lecturers as they may know the status of the lecturer before going to meet them.

1.3 Objectives

Below is the list of the project's objective:

- i. To propose the application that will help the students and lecturers FCSIT to make the process for making appointment between them become easily.

- ii. To develop an application that allows students to make requests to have an appointment with the lecturer after viewing the lecturer's availability. The lecturer will then choose either to reject or accept the request.
- iii. To analyse and develop student's appointment application that can replace manual system.

1.4 Scope

Based on the daily work of the FCSIT lecturer, Find Your Lecturer App is designed to ease the user's handling of their job. The target users of this application are FCSIT lecturers, students, and administrator. Students can make appointment only if they have logged into this system's account. The scope of the system is as following:

i. Administrator

- Manage the documents that exist in the system of students and lecturers
- Manage the system database.

ii. Lecturer

- Manage profile and account.
- Set availability table and time slot that student can see.
- View requests for disapproval or acceptance by the student.
- View appointment details.

iii. Student

- Check date and time slot before proceeding with the appointment process.

- Make booking and check the status of the request for appointment
- View lecturer availability.

1.5 Methodology

A methodology can be defined as the processes or methods by which the project requirement can be achieved, and the project completed successfully. To direct developers to carry out their project, the methodology is very relevant. The Rapid Application Development (RAD) Methodology is used to develop and execute a proposed project successfully. These steps are shown in the following figure.

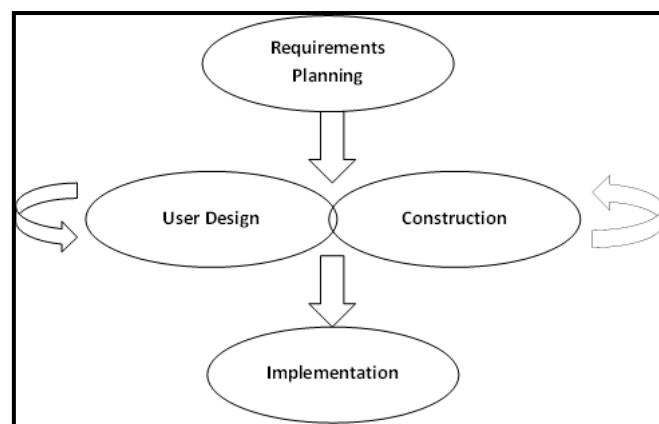


Figure 1.1: The phases of RAD Model

Rapid Application Development (RAD) model is selected for system development. Naz and Khan (2015) mentioned that RAD is being applied as the software development lifecycle as it enables faster development and delivers high-quality software using the conventional lifecycle of software development. They also mentioned that RAD makes it faster to produce a good quality product and save more vital resources. There are four stages in RAD; requirement planning, user design, construction and finally, testing and implementation. The following is the explanation for each stage:

1.5.1 Requirement Planning

Each phase includes the analysis of the area of the proposed application connected with it, and it is possible to collect the system specification as well as what the application can help. The expected outcome of this phase is the outline design of the application that includes the organization and process model for the context of the Android Mobile Application for Find Your Lecturer App and, ultimately, the assets needed to complete this task.

At this point, it is necessary to obtain proper and detailed information on how the current application operates. Questionnaires and identifying the workflow on how the current appointment system works is the way to analyse that is being used. Additional data and figures that can be collected if a proper analysis is carried out in order to provide a better understanding of how to create a better process. By doing so, we will build a better-functioning application.

1.5.2 User design phase

This phase needs to cover the considerable analysis of business activities related to the Find Your Lecturer App. Key users, business functions and the type of entity associated with the system are defined during this phase. The result of this phase is a clear representation of the diagram of the operation which shows the relationship between processed and information. In addition, the application procedure such as sequence diagram and application case will also be implemented to help the user review the application design. This stage will also be the development phase of the backend and front end. The backend will use SQL to store all the information as the database. For the front end, the user interface will be developed using Ionic Framework. Finally, there is also a plan to implement the application as well as the prototype for the application.

1.5.3 Construction phase

At this phase, the developer will work with the users to create and complete the mobile application, thus meeting all user requirements as RAD is an iterative model, allowing users to good-tune the requirements and analysis the application implementation result as this process consists of "design-and-build" step. The deliverable for this phase is the user manual of how to work and then use the application, as well as any guidance needed to assist the user.

1.5.4 Implementation phase

For this phase, it includes allows users to choose the application and guiding users on how to properly use the Find Your Lecturer App. User acknowledgment is the deliverable that would be achieved by defining the functionality of the application to the user upon completion of this phase.

1.6 Project Significant

Find Your Lecturer App is a mobile application that will benefit users. The application consists of databases that keep information about lecturers, students, and appointment information. This application will help to reduce time that occurs in daily routine when using manual way. This application also will have user-friendly graphical user interface to ease the users using the application.

1.7 Project Schedule

The Gantt chart shows how the project is planned and seen instantly whether the project is behind or ahead of the schedule. The function of the Gantt chart is to guide towards the direction of the project plan. The milestones and dates in Gantt chart are very important to guide us to finish up the projects. Figure 1.2 and Figure 1.3 below shows the milestone and

dates in completing this project.

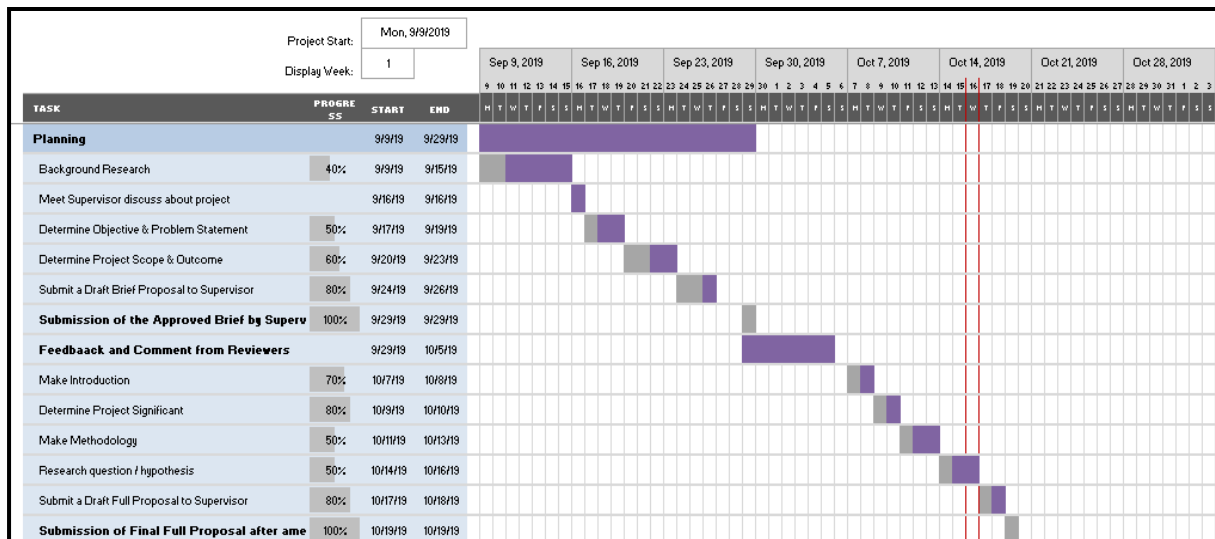


Figure 1.2: Milestone and date

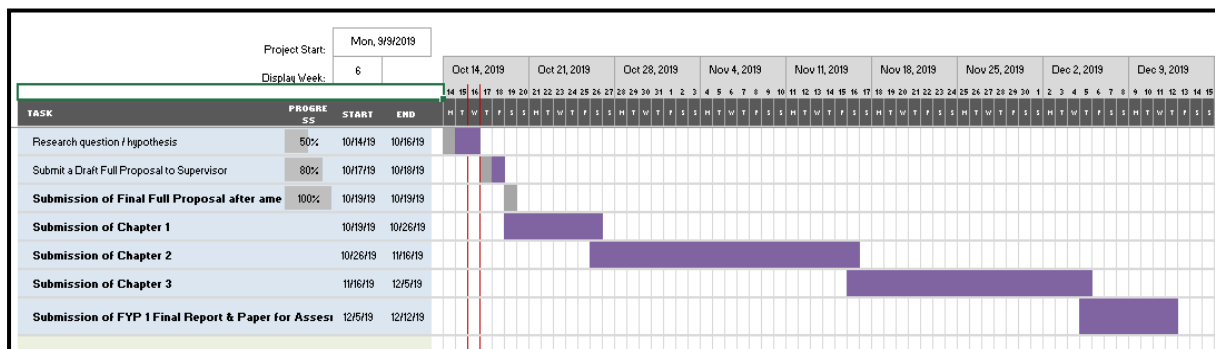


Figure 1.3: Milestone and date

1.8 Expected Outcome

At the end of this project, Find Your Lecturer App enables users to use a computerized appointment mobile application that provides several functions such as booking appointment, view the lecturer's schedule, view list of appointment and view application status.

1.9 Expected Outline

This project, includes five chapters to describe the Find Your Lecturer App.

Chapter 1: Introduction provides brief introduction to the project including the problem background, problem statement and objectives to be achieved. Besides that, user scope and system scope also discussed in Chapter 1. The organization of the report also stated in this chapter to provide a quick review on the content of the project report.

Chapter 2: Literature Review provides the reviews of the facts found and the existing systems that are related to the project including its comparisons based on the functionalities. Besides that, the techniques, methods, equipment, and technologies that will be applied on the project is also stated in this chapter.

Chapter 3: Methodology provides the reports on the approaches and overall framework taken in building the system. Besides that, this chapter also contains the techniques and approaches that will be applied in the design and implementation of the project. Then, explains the system design, user interface design, database design and included are the flowchart and Unified Modeling Language (UML). Furthermore, chapter 3 also stated the software and hardware requirements of the project.

Chapter 4: Implementation and Testing describes the implementation phase of the proposed system. The designs from the previous chapter will be the input to the system development. The initial system will be released and tested. Detailed and technical description of the system is included in this chapter.

Chapter 5: Conclusion and Future Works is the last chapter in this project that summaries and concludes the project. Objectives achieved and project limitation is stated in this chapter as well as a summary of suggested future enhancement.

1.10 Summary

At the end of this project, Find Your Lecturer App enables users to use a computerized appointment mobile application that provides several functions such as booking appointment, view the lecturer's schedule, view list of appointment and view application status.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter will discuss and review of the similar existing systems either mobile application or web- based application. Suitable tools and technologies in developing the proposed system also will be reviewed in this chapter. Mobile Application for Find Your Lecturer App is an application which allows user to make appointment with their lecturers.

2.2 Reviews on Existing Systems

Further information about each similar system or application software to the proposed system will be discussed in this chapter. As for the analysis, I have chosen three existing systems that are close to my project to be reviewed. All three systems are close in planning and booking appointments. The process and system specifics will be described in 2.2.1 to 2.2.3. Table 2.1 shows the comparison between the reviewed systems with the proposed system.

2.2.1 Google Calendar App

Google Calendar is an online web and mobile calendar that allows user to keep track of user own activities and share with others your calendars. That way, every team member knows when every member is busy. The functionality, like the proposed project that is a user in Google Calendar App, can simply select the date they decided to set an appointment. In addition, users can also reach a meeting's location so that everyone knows where to go. It is both user-friendly and powerful. You can display calendars and add events from your smartphone if you have a compatible mobile phone. When the user schedules events, the user can send an email to the participants. Figure 2.1 in the following displays the mobile application interface for Google Calendar.

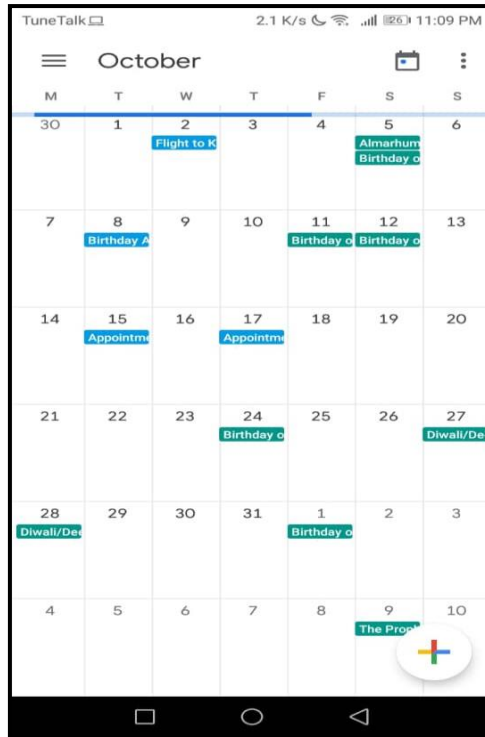


Figure 2.1: Google Calendar Interface

After all the appointment has been created, the App allow users to set the default notifications available to any event that user put on a specific calendar. If user want to receive a push notification on his job calendar 10 minutes before the next meeting.

Strengths and Weaknesses of the mobile application

These are the strengths of this mobile app. Google Calendar helps you to share a calendar with several other Google users. User can also reach a meeting's location, so everyone knows where to go. Other than that, Google Calendar's material design is fantastic and easily accessible in every smartphone. It's easy to understand and it's really organizing the user.

These are the weaknesses of this mobile app. Some items are duplicated when users use multiple accounts, such as birthdays, events, etc. Then, if it gains so many appointments, the calendar can also be hard to read. Many users have compatibility problems whereas in other applications this app could not be accessed. Although the user interface is good, but due to too

many details, his mobile application is lagging because the time for data collection is getting longer.

2.2.2 Business Calendar 2

A small, dedicated team in Berlin designs the business calendar. By upgrading Business Calendar, user not only get a lot of professional premium features, but a team also provide greatly support the app's ongoing development. In a calendar app, Business Calendar 2 has everything user need. Calendar, schedule planner and task organizer in one app. It provides an excellent summary of user meetings, is easy to use and gives user powerful tools to organize and schedule user activities and tasks. The features offered in this application is easy to handle several appointments in one time. Next, it can print user schedule to PDF. Calendar can be printed if necessary.

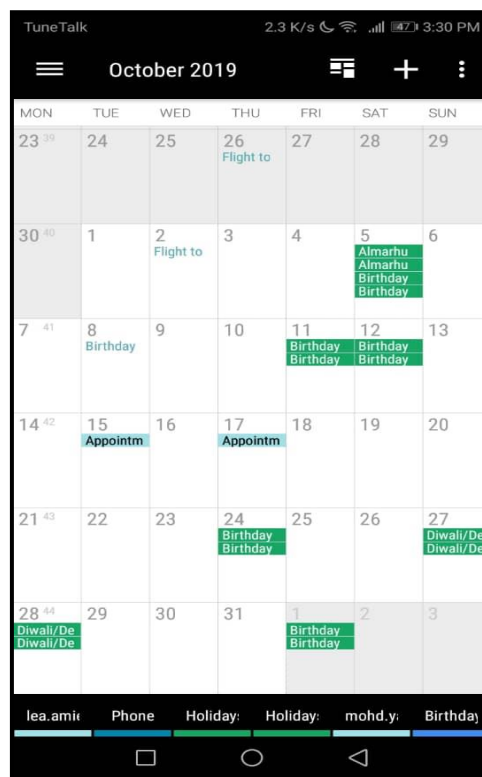


Figure 2.2: Business Calendar Interface