



Faculty of Computer Science and Information Technology

INTEGRATED ONLINE VENUE MANAGEMENT SYSTEM FOR MAMPU

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Bachelor of Computer Science with Honours
(Network Computing)

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This project is submitted in partial fulfillment of the
Requirements for the degree of
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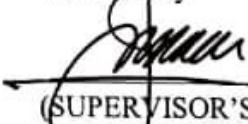

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ABSTRACT

MAMPU stands for Malaysian Administrative Modernisation and Management Planning Unit and the main headquarter is located at Prime Minister's Department Complex, Putrajaya Malaysia. The administration department of MAMPU is currently using the SMART-GOE system for reservation of their meeting rooms. This application benefits the consumers in managing documents and acts as a communication channel and information dissemination that are more productive. MAMPU is facing a problem where the reservation cannot be given based on their role in an organization. The reservation system gives priority based on "first come first serve" rule. Thus, the idea of this proposed system for MAMPU is to ease users and admin of the system by developing a web-based booking system and the reservation can be given based on role type.

ABSTRAK

MAMPU bermaksud Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia dan ibu pejabat utama terletak di Kompleks Jabatan Perdana Menteri, Putrajaya Malaysia. Pentadbiran MAMPU kini menggunakan sistem SMART-GOE untuk tempahan bilik mesyuarat mereka. Sistem ini memberi manfaat kepada pengguna dalam menguruskan dokumen dan bertindak sebagai saluran komunikasi dan penyebaran maklumat yang lebih efektif. MAMPU menghadapi masalah di mana tempahan tidak dapat diberikan berdasarkan peranan mereka dalam organisasi. Sistem tempahan memberi keutamaan berdasarkan peraturan "siapa cepat dia dapat". Oleh itu, idea sistem yang dicadangkan untuk MAMPU adalah untuk memudahkan pengguna dan pentadbir sistem dengan membangunkan sistem tempahan baru berasaskan web dan tempahan yang boleh diberikan berdasarkan jenis peranan

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CHAPTER 1: INTRODUCTION

1.1 Background

MAMPU stands for Malaysian Administrative Modernisation and Management Planning Unit and the main headquarter is located at Prime Minister's Department Complex, Putrajaya Malaysia. The building is next of Prime Minister Office Block A. It is one of the government departments that modernize the administration of the country.

The administration department of MAMPU is currently using SMART-GOE system for reservation of meeting room, vehicles, food and beverages, an asset. SMART-GOE can still be used but, a new user cannot be added due to the capacity of database storage is low. SMART-GOE is standalone software. It can only be used by MAMPU's staffs, it has been set as an intranet. SMART-GOE is developed by vendor and MAMPU bought the system for years. There are many features such as the interface and the elements for this system that need to be improved.

SMART-GOE scopes are transportation, meeting room, food and beverages, and assets. For meeting room reservations, users require to make the booking through SMART-GOE and will be approved by admin. Admin will make approval based on the availability of the room and the priority of the role type in the organization. The SMART-GOE system does not apply auto-select for the priority reservation. Hence, the admin needs to make the approval manually.

In 2018, Malaysia is developing Industry 4.0 which means, more expert system should be created. The idea of this management system for MAMPU is to ease users and admin of the system. In the next chapter, we will be discussed on the literature review where it will be explained more detail.

1.2 Problem Statement

There are few problems on the existing SMART-GOE system, where the reservation cannot be made based on priority, and no report generated. As an example, the staff has made a reservation for room A on a certain date and time. But, on the next day, the Director of the department wants to make a reservation on the same room on the same date and time. So, in this case, the admin would give the room to the director because of his priority. Admin removes the reservation of the staff to the other room available. Hence, this could lead to redundancy which admin could overlook the reservation. Next, optimization of venue usage. The capacity of the room does not link to the number of people request. So, it may give a big room for a small number of people or a small room for a big number of people. Next, the interface of SMART-GOE does not attractive and not user-friendly.

1.3 Objectives

The main objective of this project is to design and develop an integrated online venue management system for MAMPU

- i. Include an element of priority booking based on the role of a requester in the organization.
- ii. Optimization of the venue by assigning suitable based on parameters such as the number of attendees and type of meeting.

1.4 Brief Methodology

This project uses Rapid Application Development as the methodology. It has 4 phases, which are Requirement Planning, User Design, Construction, and Cutover. There are a few advantages to using RAD. RAD makes tasks more manageable. It makes the project breaks into smaller. Next, the working product will be delivered in a short time frame due to the 4 phases required.

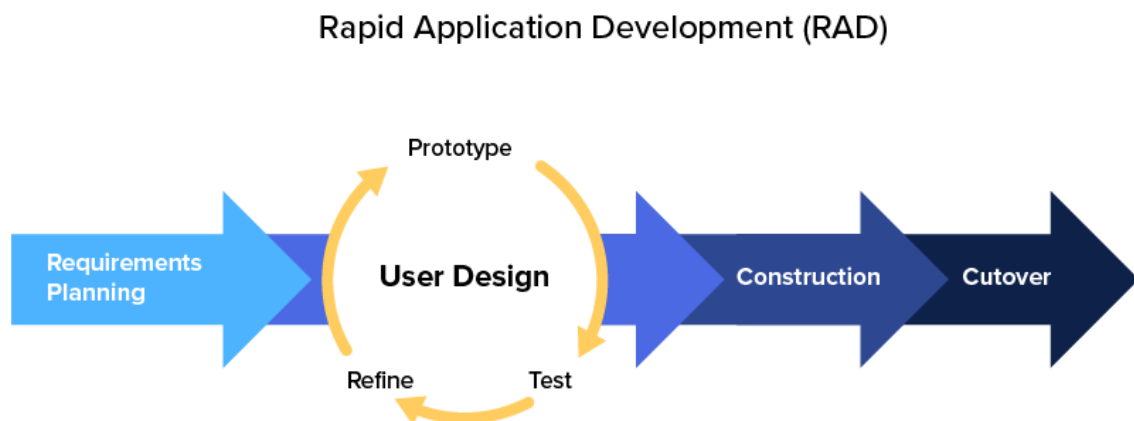


Figure 1: Rapid Application Development

For the requirement planning phase, this is the phase where the overall goals and the role of the proposed system have been identified. The goals or needs of the project will be defined from interviewing the officer Mr. Abdul Aziz. Mr. Abdul Aziz is an Administration and Diplomatic Officer in MAMPU. He is one of the persons who lead the department. Hence, all the decision and any new implementation (software, hardware, assets and management) in the department will be decided by Mr Abdul Aziz.

The goals will be identified when the person states the problems of the current system, SMART-GOE. Before interviewing, the proposal must be sent to the Administration and Diplomatic Officer of MAMPU for their acknowledgment. The proposal should include an introduction, problem statement, objective, project description, and expected outcome. The person who is in charge as an Admin and other staff who use the SMART-GOE also needs to be interviewed. Questionnaires will be distributed to the staff in the admin department, especially to the users of SMART-GOE (Admin & MAMPU staff). The questionnaires include how they agree with the effectiveness of the current system. The results of the questionnaires will be come out with statistics.

In the User Design phase, building out the user design through various prototype iterations. This phase will help the developer to make the user understand how the project works by showing them the prototype or make the goals of the project more clearly to both parties. In this phase, it consists, prototype, test and refines. The wireframe, where the navigation and layout of the system need to identify. The mock-ups of the system will be created using mock-ups software. The Data Flow Diagram and Business Diagram, Data Dictionary and Entity Relational Diagram of the proposed system should be developed in this phase.

The next phase of the rapid development life cycle is construction. In this phase, the programming language should be identified and the phase where to convert the prototype into the working model. This phase breaks down into several smaller steps:

- Preparation for rapid construction
- Program and application development
- Coding/ Programming
- System testing

The database needs to work together with the development system. Bugs and error should be eliminated until the minimum level. All the elements inside the system should be working smoothly once the prototype is completed. Also, need to determine either the report can be generated by the system and meet the objectives of the system.

Lastly, for cutover, the implementation phase where the finished product goes to launch. It includes data conversion, testing, and changeover to the new system, as well as user training. Once the system has done, the system is expected can be used by the staff in the MAMPU department. In this phase need to identify, how the website will be published. Also, need to update and monitor the system regularly

1.5 Scopes

This proposed project does no covering assets and vehicles. This project will be focusing on the reservation of the meeting room. The system will be used by

Users: All staff in the administration of the MAMPU department.

Administrator: Chief Clerk of administration

1.6 Significance of Project

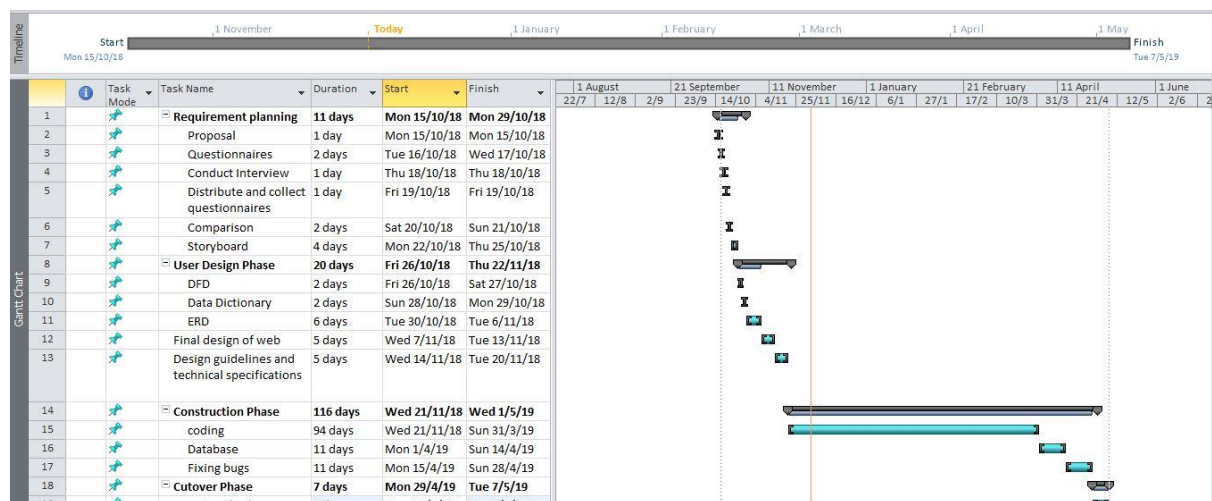
This system should be able to help admin to generate the report and make he/ she easy to book the foods and beverages. This is because, usually admin, need to collect the reservation list for the day to send to the caterer, so the caterer will make preparation to serve the foods for the meeting on that day. Admin usually uses the traditional method, where she/he needs to write it on paper instead the report of the system should be auto-generated. This system also eases users to make a booking because the system is user- friendly and attractive.

1.7 Project Schedule

Table 1: Project Schedule of the proposed system

No	Task	Duration (Days)	Start Date	End Date
1	Requirement planning - Proposal	1	15/10/2018	15/10/2018
2	Requirement planning - Create Questionnaires	2	16/10/2018	17/10/2018
3	Requirement planning - Conduct Interview	1	18/10/2018	18/10/2018
4	Requirement planning - Distribute and collect questionnaires	1	19/10/2018	19/10/2018
5	Requirement planning – Comparison	2	20/10/2018	21/10/2018
6	Requirement planning - Storyboard	4	22/10/2018	25/10/2018
7	User Design - DFD	2	26/10/2018	27/10/2018
8	User Design - data Dictionary	2	28/10/2018	29/10/2018
9	User Design - ERD	7	30/10/2018	6/11/2018
10	User Design - Final design of web	7	7/11/2018	13/11/2018

11	User Design - Design guidelines and technical specification	7	14/11/2018	20/11/2018
12	Construction - coding	131	21/11/2018	31/3/2019
13	Construction- Database	14	1/4/2019	14/4/2019
14	Construction- Fixing bugs	14	15/4/2019	28/4/2018
15	Cutover- Testing, recognized limitation	7	29/4/2019	5/5/2019



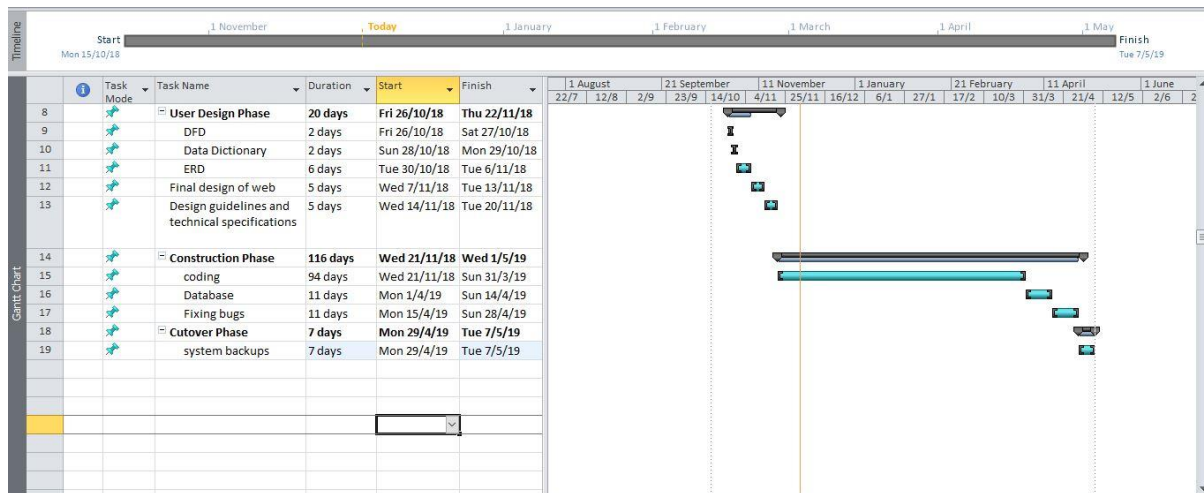


Figure 2: Gantt Chart for Proposed Project Schedule

1.8 Expected Outcome

This system is expected can be used to make a reservation based on the role of someone in an organization. It is not based on "first come first serve" concept. This system is developed to ease the user to make a meeting room reservation and make it look more attractive.

1.9 Project Outlines

Chapter 1 defines the introduction of the proposed system titled Integrated Online Venue Management System for MAMPU. In this chapter, including problem statement, objective, methodology, scopes, significance project, project schedule, and expected outcome. Problem statements describe the problems faced by the staff using the SMART-GOE system. The objective describes the goals of the system, while the project scope describes who is going to use the system once the system has been done. Next, the methodology part tells the method used in this project. This project uses RAD, so the methodology part explains how RAD works in this project. The significance of the project tells why the proposed project needs to be

developed. The project schedule describes the milestone and works going to be done within a certain period. Lastly, the expected outcome describes the expected results of the system.

Chapter 2: Literature Review

2.1 Introduction

In this chapter, three existing systems with similar features are selected to be studied and reviewed. For the proposed system, it will be implemented in a web-based system and will not be done for intranet this is because users can make reservations at any time. The staff does not have to wait for the office hour to make a reservation of the meeting room. Next, no installation needed. The staff does not have to install the application to make the reservations. Some other elements like the existing system will be discussed in this chapter.

The elements that existing system implement are:

1. Priority-based booking
2. Optimization of venue usage
3. Attractive interface
4. Installation
5. Availability
6. Quality of Customer Service
7. Low- Cost
8. Calendar Widget

In this era, there are many reservation systems exist. In this chapter, will be discussed the comparison of a similar system. The elements that will be discussed are priority-based booking, optimization of venue usage, attractive interface, the way to install it is either it needs to be installed or not. Next, the availability of the system it is either it opens for 24 hours or not. In terms of customer service, does the existing system and proposed system achieve a good quality of customer service and the cost needed. The system will be discussed are, SMART- GOE, Grab Booking System and Trivago.