

UMP MOSQUE RENTAL INVENTORY MANAGEMENT SYSTEM

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Bachelor of Computer Science (Software
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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Computer Science in Software Engineering.

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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.

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ABSTRAK

Kini di era Teknologi Maklumat dan Komunikasi (ICT), telah diramalkan bahawa tempahan berkomputer akan memberikan lebih banyak kemudahan kepada orang ramai dan mereka boleh membuat tempahan pada bila-bila masa dan di mana saja dengan akses internet. Universiti Malaysia Pahang (UMP) menyediakan sistem ICT terkini yang termasuk sambungan internet Wi-Fi untuk memudahkan kemudahan e-Pembelajaran elektronik dan e-Pengurusan berasaskan universiti. Sekarang di UMP, terdapat beberapa proses yang masih dilakukan secara manual, salah satunya adalah tempahan untuk kemudahan dan perkhidmatan di masjid UMP. Pada masa ini Pusat Islam & Pembangunan Insan (PIMPIN) menggunakan tempahan berasaskan kertas yang membawa kepada banyak kesulitan terutamanya untuk proses pengurusan. Kakitangan tidak hanya perlu menguruskan tempahan tetapi juga peralatan dan perkhidmatan yang perlu memastikan semua peralatan yang dipinjam adalah cukup dan dalam keadaan yang baik. Oleh itu, semua maklumat tempahan dan inventori ini perlu direkodkan dengan cara yang cekap dan berkesan. Sistem Pengurusan Inventori Sewa Masjid UMP adalah sistem dalam talian untuk kemudahan dan peralatan tempahan yang disediakan di masjid UMP. Sistem ini dibangunkan untuk versi desktop dan mudah alih. Objektif projek ini adalah mengkaji keperluan Sistem Pengurusan Inventori Sewa Masjid UMP, untuk merekabentuk dan membangunkan prototaip Sistem Pengurusan Inventori Sewa Masjid UMP berdasarkan teknik berstruktur dan menilai sistem yang dicadangkan. Projek ini dilaksanakan dengan menggunakan kaedah Rapid Application Development (RAD). Metodologi ini sesuai untuk projek ini kerana ia memerlukan pembangunan masa yang singkat. Keputusannya, projek ini telah berjaya dibangunkan dalam masa yang ditetapkan. Sistem ini sudah menjalani beberapa ujian untuk memastikan sistem ini memenuhi semua keperluan dan mencapai kepuasan pengguna. Tetapi masih terdapat beberapa fungsi yang perlu ditambah dan ditingkatkan dalam sistem ini pada masa akan datang seperti pengguna boleh membuat pembayaran dalam talian dan pengguna dapat memilih Bahasa yang mereka mahu digunakan dalam sistem ini. Singkatnya, Sistem Pengurusan Inventori Sewa Masjid UMP dapat membantu orang membuat tempahan dengan lebih cepat dan mudah. Juga membantu PIMPIN untuk meningkatkan pengurusan rekod untuk tempahan dan inventori masjid UMP secara berkesan.

ABSTRACT

Nowadays in the era of Information and Communication Technology (ICT), it has been predicted that computerized booking will provide more convenience to people and they can make booking anytime and anywhere with the access of internet. Universiti Malaysia Pahang (UMP) provide with the latest ICT systems which includes Wi-Fi internet connections to make ease of university electronic based e-Learning and e-Management activities. Now in the UMP, there are some process need to be through manually, one of it is booking for facilities and services at the UMP mosque. Currently Pusat Islam & Pembangunan Insan (PIMPIN) is using paper-based booking which this lead to many difficulties especially for the management process. The staff not only need to manage the booking but also the equipment and services which need to be sure that all the equipment borrowed is enough and in a good condition. Thus, all these booking and inventory information need to be recorded in an efficient and effective way. UMP Mosque Rental Inventory Management System is an online system for booking facilities and equipment provided at the UMP mosque. This system is developed for desktop and mobile version. The objective for this project are to study the requirement on UMP Mosque Rental Inventory Management System, to design and develop a prototype of UMP Mosque Rental Inventory Management System based on structured technique and to evaluate the proposed system. This project was implemented using Rapid Application development (RAD) methodology. This methodology is suitable for this project because it require short time development. As a result, this project had successfully been developed within the given time. This system already undergo several testing to ensure that this system meet all requirement and achieve user satisfaction. But there is still have some functionality need to add and upgrade in this system in future such as user can make online payment for the booking user able to choose the language to be used in this system. In a nutshell, UMP Mosque Rental Inventory Management System can help people make booking faster and easier. Also help PIMPIN to improve record management for booking and UMP mosque inventory effectively.

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LIST OF ABBREVIATIONS

UMP	Universiti Malaysia Pahang
PIMPIN	Pusat Islam & Pembangunan Insan
UTM	Universiti Teknologi Malaysia
MTMZA	Masjid Tuanku Mizan Zainal Abidin
RAD	Rapid Application Development
SDLC	Software Development Life Cycle
KUKTEM	Kolej Universiti Kejuruteraan & Teknologi Malaysia
SRS	Software Requirement Specification
SDD	Software Design Document
CSS	Cascading Style Sheets
HTML	Hypertext Markup Language
PHP	Hypertext Preprocessor

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Universiti Malaysia Pahang (UMP) was set up as a proficiency based specialized college which applies in an engineering and innovation fields. UMP is located at Pahang. UMP also have 2 campuses which are located at Gambang and Pekan, Pahang. UMP also provides facilities such as Library, Sports Facilities, Mosque, Clinic, Residence College, Cafeteria and Lecture rooms. The UMP Mosque is also built in an area of university grounds in Gambang and Pekan. The mosque has many facility such as Ruang Solat Utama, Bilik Syura, Bilik Latihan, Bilik Pengurusan Jenazah, Perpustakaan, Dapur Memasak and many more. The mosque is totally managed by PIMPIN staff.

PIMPIN was established on 28 February 2007 which was formerly known as the Islamic Affairs Unit. The change from unit to centre aims to expand the working area in line with the establishment of UMP, formerly known as Kolej Universiti Kejuruteraan & Teknologi Malaysia (KUKTEM). The main function of PIMPIN is as unit of mosque management and human development. It is responsible for carrying out human development programs among UMP residents such as training, workshops, seminars, lectures and so on. PIMPIN also provide booking for the facility and equipment at the mosque such as Ruang Solat Utama, Bilik Syura, Bilik Latihan, Bilik Pengurusan Jenazah, Dapur Memasak, Sejadah, Tikar, Mashaf al-Qur'an, Trolley, and many more.

Each time when people want to make booking, they need to fill in the booking form where they can get the form from PIMPIN portal system or at the PIMPIN office. One of the client for this project who is Ust. Ku Mohammad Aminuddin Baki Bin Ku Yakub, he is one of the PIMPIN staff informed that they faced with so many problem when handle with the booking, such as many people makes booking especially for

cooking equipment less than 3 days before the start activity, sometimes tend to forget to approve the booking form, it always time consuming to search for the facility or equipment availability for the booking, difficult to inform about the status to people who booked the facility or equipment either their booking is approved or not and problems regarding the equipment returned which the equipment returned is damaged or not enough quantity. Nowadays, it has been these types of online action that allow people to make a booking online. UMP Mosque Rental Inventory Management System is a system mainly designed for the PIMPIN and staff and non-staff around UMP who want to make booking for the facility or equipment at the mosque. This system will be administered by PIMPIN. It is an online booking system which user can view list of facility and equipment booking, check booking availability and make booking. The system administrator will be notified the booking request by Telegram and inform the status directly to the user via Email. This system also display all booking record, booking summary, generate invoice, generate analysis report regarding total booking for each facility and equipment by monthly and also generate total income for Dapur Memasak by monthly.

1.2 Problem Statement

There are 3 main problems stated below which had complaints by the client. These problem is make trouble for customers and also for the PIMPIN staffs while handling the booking process and also the mosque inventory. The table 1.1 shows the problems statement of PIMPIN system which also include some of descriptions and effects of the problems mentioned below.

Table 1.1 Problem statement of PIMPIN system

Problem	Description	Effect
i. Booking form require certain time to be verified	i. The customer fill out the form on this week and wish to take the equipment on a certain date of next week ii. The staff may forget to approve the booking form	Time consuming. The form is verified on the date to pick up the equipment

	iii. The form is missing and does not know where it is	
ii. Difficult to inform booking status	Staff will make a call if the item is booked too much or no approving officer	It is difficult for the customer to know about the status of the booking
iii. The returned equipment was damaged and insufficient	Missed out to review the items that had been borrowed and returned	The customer is penalized or need to be replaced the items

1.3 Objective

The system objectives are:

- i. To study the requirement on UMP Mosque Rental Inventory Management System.
- ii. To design and develop a prototype of UMP Mosque Rental Inventory Management System based on structured technique.
- iii. To evaluate the proposed system.

1.4 Scope

The system scopes are:

- i. This system is a normal web based and mobile web-based application.
- ii. The user for this system will be PIMPIN committee member as system administrator and staff, student and external as user.
- iii. The user need to register and login before they can use the system.

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