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# Development Of Online Apartment Management System

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*Abstract*—**Although there are various services provided by the management of the apartment to the residents, there are still deficiencies found in the way the services operated resulting in the problems faced by the residents as well as the management itself. The aim of this project is to develop an Online Apartment Management System, by which the management of apartment may manage and perform their operations online. The apartment administration will benefit from this system as they can manage all transactions made by users online and paperless. The system's interface is developed using PHP language by using the Dev-PHP software and the system's database was created using MySQL database. The system's features include paying bills, purchasing car stickers, complaints submissions, and update the tenants information online, making it more effective, efficient, interactive and successfully solve the problems faced compared to using the current system.** (*Abstract*)

## I. Introduction

Online Apartment Management System is a system developed for SR Apartment Management, one of the apartments in Kuala Lumpur. It is used to help people in the apartment to pay bills such as maintenance bills, water bills, buy a sticker for the car, make a complaint and update tenants' information. The purpose of this system is to have a system that can do all sorts of things like paying bills, buying car stickers, make complaints, and update the tenants' information through online to make it more effective, efficient, interactive and successfully solve the
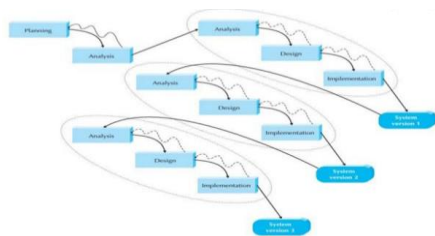
problems faced when using the current system. The main function of this system is being able to make online payments, can make the car sticker purchase, remove the purchase, display information about the purchase, make a complaint to the management, and submit the tenant information to management.

## II. Main Body

### 2.1 Literature Review

According to Almutairi (2014) developments in technology and communications have undergone a drastic change. The use of this technology in the business in recent years has been the choice of organizations to apply in their management system. Among the changes that we can see is E-Management was introduced. E-Management has been used by many organizations around the world and they have experienced a dramatic change in the transaction and performance standards in their organizations. E-Management is a system that can improve the efficiency of the organization. E-management can save time, be able to provide services quickly, and be more transparent in the service.

### 2.2 Research Methodology

### Planning

In this stage, developers will meet with the project coordinator of SR Apartment Management to discuss and establish the desired objectives of the project. In addition, the development of strategies and tools that will be used in this project will also be discussed. Everything in this stage is the theoretical but developers will work together with customer that requires a system that meets their needs to solve the problems they face.

### Analysis

In this stage, developers will identify the existing problem and will make an analysis to find a solution to the problem. Developers will also make forecasts of the problem to be faced when developing this system. The developer and customer will identify the concept of system as a whole and will categorize the requirements into a series of versions.

### Design

When plans were made, it's time to start building a product based on the plans. Using the tools that have been agreed upon and interfaces, developers will begin to build products based on customer requirements. Feedback and suggestions are welcome as this is the basis of the processes of additional software and instructions. Slowly developers and users can come up with a prototype that is almost ready for general use.

### Implementation

After that, the developers will start to develop of actual system based on the prototype. Clients can interact with this phase and give input on changes they would like to see even during the system development. This stage include programming and system development, coding and system testing. System testing will take place in this stage by the developer and also the client.

### 2.3 Testing and Result

### Usability Testing

Usability testing conducted to evaluate a product or service, this test is performed using user representatives to conduct this test. During the test run, participants will try to complete the tasks that have been provided by the developer. Developers will not interfere or help participants complete the task, but the developer will act as an observer, listen, and take notes. The main goal of this process is to identify any usability problems, collect data, and determine the participants' satisfaction with the product or service.
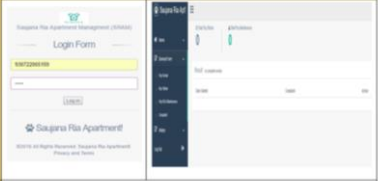


### Functional Testing

The purpose of this testing is to test and evaluate the behaviour of the whole system and its functional application. This testing process also help the developer to determine whether this system successfully fulfilled the client requirement and to ensure the system is working and free from any error. All the functioning button or method in this system will undergo the testing process. This will help developers to minimize the error and improve the system.

**Table 5.1 : User login**

| Test Case ID | Test Case Name | Tester Name | Date |
|---|---|---|---|
| TC-01 | User login | Hafizuddin B. Azmi | 5/11/2016 |

| Test Objective | Test the username and password for user | |
|---|---|---|
| Expectation Result | No error occurred | |
| Actual Output | 1 | 2 |
| |  |  |
| Actual Result | Login successfully. No error found after user key in the username and password | |

### 2.4    Conclusion

In conclusion, Online Apartment Management System has been proposed to SR Apartment Management. This system will help management to manage rental application, purchase car sticker, pay maintenance bills and water bills, and make a complaint. The aim of this system was developed to help users to do everthing they want through online. Administration will also benefit from this system because they can manage all transactions made by users via online without using paper. The goal of this development is to create a centralized system that will help the user to do a variety of things via online to make it more effective, efficient, interactive, and managed to solve the problems encountered in using the current system.

There are some suggestion that can be implemented in this Online Apartment Management System.

**1. Language**

At this moment, the system only uses Bahasa Inggeris language. Hopefully, Malay language can also be applied in this system. This will be beneficial to users who find it difficult to understand Bahasa Inggeris language.

**2. Notification message**

This system will be more complete if there notifiaction message in the system. Each time the user logs into the system, a notification message will appear to inform users if users are still unable to pay the maintenance bill and water bill.

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