Temasek Polytechnic

School of Informatics and IT

**Diploma in Information Technology (IT)**

Terms of Reference

**Project Particulars**

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| **Tutor** | Mr Mel Goh |
| **Class** | P02 |
| **Project Title** | Delonix Regia Hotel Management System |

**Project Team’s Particulars**

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| --- | --- |
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**Table of Contents**

[1. Introduction 3](#_Toc482320795)

[1.1. Hotel Management System Definition 3](#_Toc482320796)

[1.2. Background Information 3](#_Toc482320797)

[1.3. Project Purpose 3](#_Toc482320798)

[1.4. System Usability 3](#_Toc482320799)

[1.5. Problems faced thereby system use is necessary 4](#_Toc482320800)

[2. Objectives of the Project 4](#_Toc482320801)

[3. Scope of the Project 6](#_Toc482320802)

[3.1. Accessibility & Flexibility 6](#_Toc482320803)

[3.2. Time Savings 6](#_Toc482320804)

[3.3. Staff Management 6](#_Toc482320805)

[3.4. Housekeeping/Maintenance Management 6](#_Toc482320806)

[3.5. Hotel Online Booking 7](#_Toc482320807)

[3.6. New Reservation 7](#_Toc482320808)

[3.7. Reports 8](#_Toc482320809)

[4. Distribution of Workload 8](#_Toc482320810)

[5. Constraints 10](#_Toc482320811)

[6. Resources 10](#_Toc482320812)

[6.1. Human Resource 10](#_Toc482320813)

[6.2. Capital Resource 11](#_Toc482320814)

[6.3. Hardware & Software 11](#_Toc482320815)

[6.3.1. Hardware 11](#_Toc482320816)

[6.3.2. Software 11](#_Toc482320817)

[7. Product Positioning in the Market/Company 12](#_Toc482320818)

[8. Approach and Methodology of the Project 13](#_Toc482320819)

[9. References: 16](#_Toc482320820)

# Introduction

## Hotel Management System Definition

A hotel management system is an integrated software system that allows the hotel management to enhance hotel efficiency, gather business performance data, keep a tight leash on cost control and checking guest in and out.

## Background Information

The hotel is currently managed by a middle-aged couple, Mr. and Mrs. Wang, and hasn’t been doing well even though it is located at a reasonably good district. They require us to periodically update them on our progress on the development of this hotel management system. Despite Delonix Regia Hotel being located at a popular area, however it hasn’t been doing well lately.

## Project Purpose

We have been tasked with this project to develop a hotel management system called Delonix Regia Hotel Management System that would allow owners Mr and Ms Wang to enhance hotel operations, meet hotel needs and serve customer needs better to improve the hotel performance on a business scale and improve hoteliers experience.

## System Usability

The Delonix Regia Hotel Management System is user friendly as the installation and setup of the system is simple and straightforward. Due to the lack of the need for complex hardware, updating the system is simple and can be customized according to the business needs.

The automated nature of the system allows hoteliers to save time and increase efficiency in their functions. Hotel management daily task can be better tracked and updated, providing transparency for the hotel staff and a better experience for guests.

## Problems faced thereby system use is necessary

The hotel has been facing various problems such as

* The hotel operations are improperly coordinated
* The hotel needs are slowly met
* The customers’ needs are slowly met
* Even in a reasonably good location the hotel has not been successfully attracting guest
* The hotel currently lacks a hotel management system that can improve the hotel experience
* The hotel advertising has been inadequate
* The hotel online website is not up to date and lacks a proper booking engine system
* The hotel financial performance has been below par
* The process of processing hotel reservations, checking guest in and out, tracking inventory and billing is slow
* The hotel lacks adequate staff to properly maintain the hotel

# 2. Objectives of the Project

The objectives of this project that we seek to achieve through this project are

* To present the hotel as an excellent, or the best hotel in the district so that it can be ahead and above its competitors
* To make it easy for customers to make reservations via our Delonix Regia Hotel Management System
* To make it easy for customers to get their questions answered so as to improve customer relations and customer that would be enhanced by our Delonix Regia Hotel Management System
* To help the hotel fill as many rooms as possible at a relatively high rate with the use the Delonix Regia Hotel Management System
* To maximize revenue on each sale, even though price competition is strong with the help of the Delonix Regia Hotel Management System
* To allow staff to easily update information in the system, and have the system inform everyone who needs to know so as to improve hotel efficiency and service with the use of the Delonix Regia Hotel Management System
* Allow booking of rooms without errors and without creating conflicts with the use of the Delonix Regia Hotel Management System
* Provide people seeking hotel rooms with accurate information about available accommodations with the use of the Delonix Regia Hotel Management System that would accurately update the hotel booking system when bookings have been made.

The objective of the project is to develop a hotel management system for Delonix Regia Hotel and at the same time include a personal information management system which is used in Sonium.

# 3. Scope of the Project

## Accessibility & Flexibility

* The hotel manager will be able to monitor reservations
* The hotel manager will be able to adjust booking rates
* The hotel manager can review hotel financial and services performance
* The Delonix Regia Hotel Management System will contain security features such as permission-based access that would keep important data safe and separate from other system functions that can only be accessible to authorised personals.

## Time Savings

* The Delonix Regia Hotel Management System would also allow the hotel manager to eliminate time-consuming, manual tasks, like logging in and out of multiple systems. This can be done by integrating the management systems together.

## Staff Management

* The hotel manager will be able to manage and update the staff work schedule and their respective roles.
* Manager will be able to manage staffs’ monthly salaries accordingly.

## Housekeeping/Maintenance Management

* This feature is meant to track rooms that need cleaning before guest arrive, or even track the number of rooms that are cleaned on a given day.
* This feature is also meant to keep track of areas that need attention as well as for scheduling future repairs or check-ups to ensure that basic needs and services are running efficiently and effectively.

## Hotel Online Booking

More than 70% of hotel reservations are made online, hence these booking engine is to allow customers to book a hotel room through their devices instead of travelling down to the location to book. In order to book online, customer would have to provide the following details:

* Arrival Date
* Departure Date
* Number of Rooms
* Number of Guests

A summary of the details entered by the customers will be shown and then submit to the management system once the customer confirms the information shown in the summary.

## New Reservation

For walk-in customer they will make their reservation with the person in the customer service desk. They will be in charge of taking down the customer’s details. Just like online booking, the customers would be asked to fill up the following details:

* Arrival Date
* Departure Date
* Number of Rooms
* Number of Guests

A summary of the details entered by the customers will be shown and then submit to the management system once the customer confirms the information shown by the staff.

## Reports

Financial reports will be produced for this feature, so that Mr and Mrs Wang will be able to keep track of their financial performance of the hotel. One important factor would be benchmarking, where competitors are brought into the picture, and compared against their own hotels with the following possible criteria:

* Revenues: Rooms, food, beverage, telecommunications, etc.
* Departmental Costs and Expenses: Rooms, food, beverage, telecommunications, etc.
* Operating Expenses: Utility costs, maintenance, etc.
* Management fees, property taxes, insurance etc.

By studying their competitor, the hotel managers will have the ability to evaluate their cost and revenue and be able to pinpoint the areas that are doing well.

# 4. Distribution of Workload

|  |  |
| --- | --- |
| **Objectives/Deliverables** | **Members** |
| TOR:  Introduction  Objectives of the Project  Project Plan:  Project Schedule | Shawn Yang |
| TOR:  Scope of the Project  Constraints  Project Plan:  Work Breakdown Structure | Xavier See |
| TOR:  Approach and Methodology of Project  Product Positioning in the Market  Project Plan:  Budget Summary | Kai Sheng |
| TOR:  Product Positioning in the Market  Resources  Project Plan:  Risk Management Plan | Ai Ling |
| Project Plan:  Objectives and scope of project  Assumptions and Constraints  Definitions and acronyms | All |

# 5. Constraints

* Time constraint due to family businesses e.g Religion, Funerals, Weddings
* Other assignments deadlines
* Co-curricular Activities
* Availability on the weekends
* Not always available to have a meeting and discussion
* Consultation with lecturer limited to only 4 hours a week
* Limited locations for face-to-face meetings
* Insufficient resources will cost the delay in delivering the project
* Cost will rise due to the lack of resources needed
* Insufficient material accessible to complete the software
* Conflicting in scheduling of the groupmates

# 6. Resources

* Laptop
* Research materials about similar hotel applications
* Software tools to develop our application e.g Microsoft Project
* Most suitable template from the different Hotel Management Systems that already exists, e.g Little Hotelier, SiteMinder

## Human Resource

Customers, Groupmate, Hotel Staff, Program Developer, IT programmers, Hotel Manager, Mr & Mrs Wang

## Capital Resource

Capital resources are needed to produce important information. By using certain tools such as Activity Duration Estimation (ADE) and Reserve Analysis Technique (RAT). It is important as they produce the base information for the project. As it helps in estimating the time and budget for the projects.

Without these information, it is hard in planning any steps for the project. RAT is used to establish any possibility reserves during the project to guard against possible risks. ADE is the process of estimating the period of the project activities using scope and resources information.

Opportunity Cost is to measure other circumstances abandon in the choice of one good or activity over another. This might affect the budget or risk management plan.

## Hardware & Software

## Hardware

The only hardware that will be used in this project is our computer it helps the team in developing the software for the hotel.

## Software

Will be using Cloud, hence no software will be needed.

# 7. Product Positioning in the Market/Company

As compared to those similar products in the market, our product uses cloud storage which helps in preventing in loss in data due to server issues. At the same time, we cut cost in purchasing it and maintaining of servers. However, there might be risks of 3rd party cloud computing company closing down which may have led to the cause of losing of data.

This system provides a full experience to customers. Unlike common hotels,

Can compare:

Little Hotelier

<http://www.littlehotelier.com/online-hotel-management-system/?_bt=192525757853&_bk=hotel%20management%20system&_bm=e&gclid=Cj0KEQjwuZvIBRD-8Z6B2M2Sy68BEiQAtjYS3FqNVWV1vGObK6iNJ0VMM7hzbOUeV7Xdn-dKOFHilusaAs4f8P8HAQ&gclsrc=aw.ds>

SiteMinder

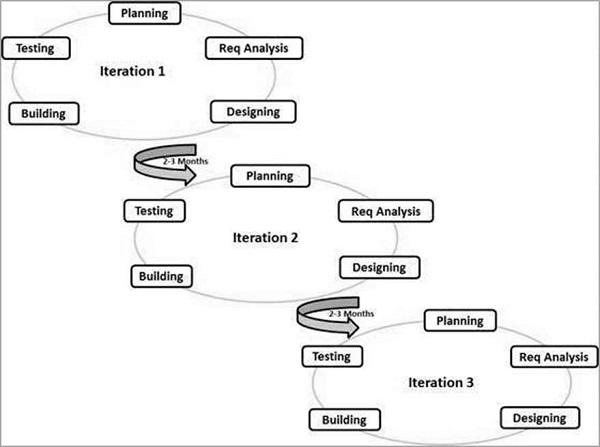
<http://www.siteminder.com/?_bt=191402908067&_bk=hotels%20management%20system&_bm=e&gclid=Cj0KEQjwuZvIBRD-8Z6B2M2Sy68BEiQAtjYS3NBr7aUROxLP9SLmmk_igWrWfqlxrhV7fcCs0OOo-tgaAlqw8P8HAQ&gclsrc=aw.ds>

Cloudbeds

<https://www.cloudbeds.com/?utm_source=google&utm_medium=cpc&utm_campaign=Cloudbeds+-+No+Asia+No+Africa&utm_term=%2Bhotel%20%2Bmanagement%20%2Bsystem&utm_content=62423191254&gclid=Cj0KEQjwuZvIBRD-8Z6B2M2Sy68BEiQAtjYS3LXjCkd6GEeiTRLknug76Lou3ZKLAFSmw5L1aeOy9XMaAvZJ8P8HAQ>

# 8. Approach and Methodology of the Project

**Agile Model**



(Image source: <https://www.tutorialspoint.com/sdlc/sdlc_agile_model.htm> )

**Potential problems during the integration process:**

**Insufficient Agile experience**

It would be extremely difficult for us as the project team to adopt the agile model as its development model with the current project mates who do not have any experience in handling and carrying out the agile development model. The agile development model would entirely change the way run and carry out a project.

**Traditional office environment**

A traditional office environment would not be suitable for use of the agile development model approach as the agile model as it requires project mates to frequently interact with one another and to work as a team. If we are separated due to our positions being at separate offices and cubicles, we would not be able to work effectively together and our interactions with one another would be limited thereby making it extremely difficult to adopt the agile development model by our project group.

**Tendency to micromanage**

An agile environment would require company managers to be flexible and allow development teams to make their own decisions and run the whole process of adopting the agile development model. Our Manager should not micro-manage every decision that has to be made for the project during the implementation process of the agile model as it would harm the performance and the effectiveness of our project group.

**Solutions to our potential problems:**

**Hire experts who have agile method experience**

Mr Wang should hire experts who have experience in implementing the agile model so that they could assist our project group in adopting the agile development model approach in the correct manner. The experts could also teach us more about the agile model and help us to successfully adopt the model for the project.

**Adapt the working environment**

Mr Wang’s company could allow us to work in a project room as the adoption of the agile model by our project group requires our group to work in a setting where we are working in the same project room and we are able to express our ideas regarding the adoption of the agile model by our group and have direct face to face interactions and that we would not be distracted by other staff around us as we would be in a confined space together away from other staff.

**Enable our project group to make decisions**

Our project manager should instead of micromanaging, allow us the flexibility of making decisions for our project on our own. Our project manager should help us as much he/she can so as to improve the efficiency of our group regarding our adoption of the agile development model approach. Our project manager should also give us advice as we adopt the agile model for our project.

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