Temasek Polytechnic

School of Informatics and IT

**Diploma in Information Technology (IT)**

Terms of Reference

**Project Particulars**

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| --- | --- |
| **Tutor** | Qi Yutao |
| **Class** | P04 |
| **Project Title** | Hotel Management System |

**Project Team’s Particulars**

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| --- | --- |
| **Matric Number** | **Student Name** |
| 1702378I | **Lee Jing** |
| 1705978C | **Koh Jia Hui** |
| 1705766B | **Lee Choon Loong** |
| 1603305B | **Toh Chien Yuan** |

**1. Introduction**

The purpose of this project is to create a hotel management system to manage Delonix Regia hotel. Delonix Regia hotel was established in 2010 by Mr. Wang and Mrs. Wang along Havelock Road. It also offers guests a nostalgic stay away from the noise of the city but is still conveniently within bus and MRT travel.

The hotel hasn’t been doing well even though it’s located in a good district, this might be due to poor hotel management. Therefore, there’s a need to create a new system to manage the hotel.

Possible Users of the hotel management systems:

1. Customers will be using the system to make reservation. This includes cancelling and making payment.
2. Administrators will manage the whole system.
3. Employees are able to use the system to make reservation and able to check in and check out for the customers.

**2. Objectives of the Project**

The objective of the project is to deliver a hotel management system that will help Mr and Mrs Wang to better manage their hotel, Delonix Regia. The system will be able to perform important organization and financial task and activities. It is to help Mr and Mrs Wang to increase their revenue and save time on hotel operation.  
  
The modules that will be developed are management of rooms and facilities, management of reservations, management of employees, management of users and hotel website.  
  
At the end of the project, the hotel management system will be fully functional with all key features added it. It will be able to help to management the hotel smoothly without fail. The system should also have a database, a reservation website for users/guest and an admin page to manage the hotel.

**3. Scope of the Project**

**Management of rooms and facilities** - this feature enables the administrators to view the number of rooms and facilities in the hotel and its relevant details. It also enables the administrators to edit the details of the rooms and facilities. Administrators can also add new rooms and facilities and at the same time delete them.

**Management of reservations** - this feature enables the administrators to look at the number of current and past reservation and at the same time edit each reservation if needed. It also enables the administrators to add new reservations and delete reservations. This module also contains features such as check-in and check-out which allow employees to check-in and check-out customer.

**Management of employees** - this feature enables the administrators to view employee’s information and their work schedule and also allow administrators to edit them according when deemed necessary. Administrators can also add new employees and delete employees.

**Management of user/customer accounts** - this feature enables the administrators to view user’s account information and past reservation history and delete or red flag(blacklist) them if needed.

**Hotel Website** - this module contains features such as the hotel booking feature which enables customer to make a reservation online. They will also be able to make changes to the reservation or cancel the reservation if needed. The website will also allow customers to view hotel information.

**4. Distribution of Workload**

|  |  |
| --- | --- |
| **Objectives/Deliverables** | **Members** |
| Introduction | Koh Jia Hui |
| Objectives of the project | Lee Choon Loong |
| Scope of the Project | Lee Jing |
| Constraints | Toh Chien Yuan |
| Resources | Toh Chien Yuan |
| Product Positioning in the Market/Company | Koh Jia Hui |
| Approach and Methodology of the Project | Lee Jing & Lee Choon Loong |

**5. Constraints**

Time constraint: Different timetable schedules, lead to less time to meet up for group project. Fixed date to finish the project in 17 weeks.

Manpower constraint: Not enough HR for human testing of the reliability of the software. It will slow down the process of software testing and bug fixes.

Monetary constraint: Limited budget to buy the required software and hardware resources.

**6. Resources**

Software Resources:

Github: For Software Configuration Management (SCM)

Powerpoint: Use Case Diagrams, and VOPC

Axure: Mockup of UI

Powerpoint: Compile of mockup of UI \*

Powerpoint: ER diagram, Database Dictionary \*

MongoDB: Database to store data

Visual Studio: Supports language HTML, CSS, Typescript

Angular: Uses HTML, CSS and Typescript for creation of application

Hardware resources:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Processor | RAM | Disk Space |
| MongoDB | - | - | 600 MB |
| Visual Studio | 1.8 GHz | 2 GB | 130 GB |
| GitHub | 1.6 GHz | 1 GB | 1 GB |

*Minimum Requirements:*

Processor: 1.8 GHz or faster

RAM: 4GB

Hard disk space: 200GB

**7. Product Positioning in the Market/Company**

Make booking for the hotel website as simple and efficient at the same time so that customers are able to check the availability and book a room on any page of the website regardless of the device that customer are using and whenever they want. Our hotel management system is much better as compared to other system in the market.

Compare to OPERA Property Management System (PMS) their check-in and check-out process are slow but with our system user do not have to worry about the check-in and check-out process being slow.

Unlike Frontdesk Anywhere, their system unable to locate guest’s reservations by email or phone number. Our system is able search by name, email or even phone number.

To promote our hotel and offering them as perks and most importantly, stand out from the crowd to effectively marketing our hotel.

* Our product is user friendly and easy to use,
* Gives 24/7 hours customer support.
* Able to restrict user privileges.
* Ability to blacklist customer that cause trouble for the hotel.

**8. Approach and Methodology of the Project**

The methodology we will be adopting for the development project is the agile model as it focus on helping the team to think and interact in ways that achieve agility. Agility is the ability to continually adapt and constantly make improvements to the management system. We will be able to provide Mr. and Mrs. Wang constant interaction and weekly update on the progress when developing the application.

However, disadvantages are that it does not emphasis on necessary designing and documentation and the project can easily go off track if the client is unsure of the final outcome that they want. We can overcome this challenge by clarifying the project objectives and requirements clearly to Mr. and Mrs. Wang. This will ensure that the client is sure of the final outcome of the hotel management system, so that we do not need to spend a lot of time changing and modifying the system till it goes off track from the project objective.

Another possible issue we may face is the timeline that is set for the development. The timeline can be determined based on the number of available resources to do the work and the amount of effort it will take to meet the requirement of the project. We can prevent this by giving ourselves padding for error when planning a timeline which includes factor in the possibility of holidays (staff or Mr. and Mrs. Wang may take extra off days), unexpected sick days or in the event of a team member leaves.