

SRS Document for

HOTEL RESERVATION APPLICATION

Submitted in partial fulfillment of the requirements for the award of the degree of

Bachelor of Engineering in Computer Science & Engineering

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Table of Contents

1. Introduction.....	2
1.1 Goals and Objectives.....	2
1.2 Scope.....	2
1.3 Constraints.....	2
1.4 References.....	2
2. Overall Description.....	3
2.1 Product Perspective.....	3
2.2 Product Functions.....	3
2.3 User Classes and Characteristics.....	4
2.4 Operating Environment:	4
2.5 Design and Implementation Constraints:.....	4
3. External Interface Requirements.....	5
3.1 User Interfaces.....	5
3.2 Hardware Interfaces.....	5
3.3 Software Interfaces.....	5
3.4 Communication Interfaces.....	5
4. Specific Requirements.....	6
4.1 Functional Requirements.....	6
4.2 Non Functional Requirements.....	10
5. User Interface Design.....	12
6. Diagrams.....	17
6.1 Use Case Diagram.....	20
6.2 Data Flow Diagram.....	20
6.3 Class Diagram.....	21
6.4 Sequence Diagram.....	22
6.5 Activity Diagram.....	23
6.6 ERD Diagram.....	24
7. Gant Chart.....	25

1. Introduction

- This document specifies the production and design of Hotels exploring app.
- This project helps you to locate and identify your nearest Hotels. It enables one to establish a direct connection with Hotel owners: they always have the service right in their pockets and the business logo on their home screens.
- This app with speedy check-in and digital key functions make late registrations more manageable and prevent lengthy queues at reception. You can also made comparisons between different and nearest hotels their prices, spaces, and in between their services.

1.1 Goals and Objectives

- To present the hotel as an excellent, or the best, choice to its target market.
- To make it easy for customers to make reservations. The Objective of this reservation system is to help hotelier to get more direct bookings easily.
- It would have some effective features that help to generate revenue.

1.2 Scope

- The scope of the online Hotel reservation system is to create an online web-interface for the users to check the availability and book the Hotel from any part of the world.
- This system will be an alternative to the traditional offline way of checking available rooms and book them.
- The scope of the sub-system which is described in this document is the user interface. The system will have two major types of users: **customers and hotel manager**.

1.3 Constraints

- The system has dependency on the database and the hotel's existing traditional system.
- Internet connection is a constraint for this system because system is available from cloud therefore customer needs to have good network connection to connect to our web interface available from cloud therefore customer needs to have good network connection to connect to our web interface

1.4 References

GCR TEMPLATE:

We have taken the concept from this tutorial and are able to write the document in our own way.

ERD diagram tutorial: <https://www.guru99.com/er-diagram-tutorial-dbms.html>

We have learnt through this link that what is ERD and how to draw it then after gaining concept from this tutorial we are capable to draw ERD of HOTEL MANAGEMENT SYSTEMS.

2. Overall Description

2.1 Product Perspective

The Hotel Management System app which is created by our team members is to overcome the problems that have occurred due to the current manual system. The new system is user-friendly with attractive interfaces. System demands the login id from the customer in order to protect the data of different customers. It will help in handling automatic large scale of files and data. We are not much worried about calculations and other required tasks that has been specified by the customer. The system will require a good and stable internet connection for usage. The final outcome of this project will increase the efficiency of almost all the tasks done at the Hotel in a much convenient manner.

2.2 Product Functions

The system will perform the following product functions:

- ❖ Login
- ❖ Register
- ❖ Search Hotel
- ❖ Select Hotel
- ❖ Check Room Availability
- ❖ Confirm Booking
- ❖ Cancel Booking
- ❖ Store Customers Details
- ❖ Receive Confirmation Messages
- ❖ Make Payment
- ❖ Generate Report
- ❖ Forget Password

2.3 User Classes and Characteristics

There are 2 user levels in Hotel Management System

- ❖ Hotel Manager
- ❖ Customer

HOTEL MANAGER:

Manager have every access to the system. He is responsible for managing resources and staff. Manager can view any report such as financial report, customer information, booking information, and room information, analyze them and take the decision accordingly. Taking backups of the system and restoring system can also be done by manager. Moreover, he can add new rooms, room types, search and add customers, update booking details and remove them. Manager is required to have experience on managing hotel previously, and have base knowledge of database and application server.

CUSTOMER:

Customer are vital part of the system. Customer have access to view the vacant room information and price range. They should be able to confirm the booking and cancel it if necessary and get an email reminder for booking confirmation by manager. Customers have access to customer service desk portal to forward their inquiry. Customer should at least be capable to use the web UI interface.

2.4 Operating Environment:

- ❖ Operating System supports all known operating systems, such as Windows, Linux
- ❖ Computer 512MB + RAM, monitor with minimum resolution of 1024 * 768, keyboard and mouse.
- ❖ Hard Drive should be NTFS file system formatted with minimum 10GB of free space
- ❖ A Laser Printer will need to be used to print these reports and notes.
- ❖ Software is designed to run on any platform above Microsoft Windows 7 (32 bit).
- ❖ Microsoft NET Frameworks 4.0 or above.

2.5 Design and Implementation Constraints:

In order to maintain the reliability and durability of system, some design and implementation constraints are applied. Availability of an android app for hotel management system could make the system portable but due to time constraint it is not possible. System will need a minimum memory of

512MB but it is recommended to have a memory of 1GB. Considering the customer's budget we decided to create those interfaces in simple realistic manner using affordable technology.

3. External Interface Requirements

3.1 User Interfaces

This application is very useful for the customer as it provides a great facility. It also provides a direct interaction between the customer and the trainer in case of any query. User friendly dashboard. User pays the bill after selecting suitable packages.

3.2 Hardware Interfaces

- ❖ Touch Screen: The app will access the touch screen of the device for taking inputs.
- ❖ Stable internet connection: Reservation alerts will be sent to the manager as an email notification. So, there is a need of broadband internet connection. Client should be able to keep a stable internet connection.
- ❖ A laser printer will be needed when printing bills and several reports.
- ❖ GPS: It will be used for tracking.
- ❖ RAM And hard disk: It support the RAM of 512MB and hard disk of 10GB.

3.3 Software Interfaces

- ❖ The system supports windows 7, windows XP, Linux.
- ❖ Net 4.0 will be installed and that will be the platform the particular software will be run.
- ❖ The database is MySQL Server.
- ❖ It supports browser opera, chrome etc.

3.4 Communication Interfaces

When a specific reservation reserved at the same time an e-mail notification will be sent to both manager email account and customer's account. Customer will be notified in the check-out date. To

achieve that functionality, it requires having a stable internet connection. Mostly a broadband connection with the customer's computer will provide the efficient service.

4. Specific Requirements

4.1 Functional Requirements

4.1.1 FR-01 Log-in and Checking page availability

Identifier	FR-01
Title	Log-in and Checking page availability
Requirement	The user should know how to log-in(User must know username and password).
Source	Supervisor Name
Rationale	To book the hotel
Restrictions and Risk	Nil
Dependencies	Page should be available
Priorities	High

4.1.2 FR-02 Register

Identifier	FR-02
Title	Register
Requirement	The user should know how to register. Then user should know how to use the browser and open the page.
Source	Supervisor Name
Rationale	To book the hotel
Restrictions and Risk	Nil
Dependencies	Page should be available
Priorities	High

4.1.3 FR-03 Search Hotel

Identifier	FR-03
Title	Search Hotel
Requirement	The user can search the desired hotel by checking the list of different available hotels
Source	Supervisor Name
Rationale	To get the information about address, ratings, price , availability, check-in, check-out dates etc.
Restrictions and Risk	Nil
Dependencies	Page should be available
Priorities	High

4.1.4 FR-04 Select Hotel

Identifier	FR-04
Title	Select Hotel
Requirement	The user can select a particular hotel from the list of different hotels
Source	Supervisor Name
Rationale	To get the information about desired hotel
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.5 FR-05 Check Room Availability

Identifier	FR-05
Title	Check Room Availability
Requirement	The user can check whether any rooms are available in the hotel which he has selected or not. The page should display all the available rooms with the list of prices and facilities.
Source	Supervisor Name
Rationale	To get the information about availability of rooms in particular hotel
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.6 FR-06 Confirm Booking

Identifier	FR-06
Title	Confirm Booking
Requirement	The page will display the message that the booking has been confirmed
Source	Supervisor Name
Rationale	To further proceed and store the details of the customer
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.7 FR-07 Cancel Booking

Identifier	FR-07
Title	Cancel Booking
Requirement	The page will display the message that whether booking is confirmed or cancel.
Source	Supervisor Name
Rationale	To cancel booking and stop further proceed.
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.8 FR-08 Store Customer' s Details

Identifier	FR-08
Title	Store Customer's Details
Requirement	The page should store Customer's surname, phone number, email address and all the required details accordingly.
Source	Supervisor Name
Rationale	To display the information of customer and also display the cancel button if the customer wants the booking and return him to the homepage.
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.9 FR-09 Confirmation Message

Identifier	FR-09
Title	Confirmation Message
Requirement	The page will display the message through email that booking has been confirmed.
Source	Supervisor Name
Rationale	To confirm booking. Staff can also edit customer's booking information (check-in, check-out, room preferences, bed preferences, cancel booking) if needed.
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.10 FR-10 Make Payment

Identifier	FR-10
Title	Make Payment
Requirement	The page shall display the price of the selected room, field for credit card number, mandatory check boxes, terms and conditions.
Source	Supervisor Name
Rationale	To make the customer able to pay for room via cash or credit card. Customer can also click on cancel button to return to hotel home page.
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.11 FR-11 Generate Report

Identifier	FR-11
Title	Generate Report
Requirement	The page shall display the final report after confirmation.
Source	Supervisor Name
Rationale	The customer will be able to find reservation status and cancelation status if he

	cancels the confirmation.
Restrictions and Risk	Nil
Dependencies	Nil
Priorities	High

4.1.12 FR-12 Forget Password

Identifier	FR-12
Title	Forget Password
Requirement	The user should know the process of recovering password if he/she forgets and will continue to book the hotel.
Source	Supervisor Name
Rationale	To book the hotel
Restrictions and Risk	Nil
Dependencies	Page should be available
Priorities	High

4.2 Non Functional Requirements

4.2.1 Performance Requirement

The system should have immediate response time.

Identifier	NFR-01
Title	Performance Requirement
Requirement	Every booking submission & modification should be updated in Hotel's common database within 10 seconds after each submission & modification activity. Results for cross checking of availability of rooms in internal database and customer's choice shall be in 5 seconds. Results for cross checking of availability of rooms in internal database and customer's choice shall be in 5 seconds. Results for cross checking of availability of rooms in internal database and customer's choice shall be in 5 seconds. Confirmation email shall be sent into customer's mentioned email within 2 secs after confirmation page termination

4.2.2 Reliability Requirement

System shall be accessible 98% of the time.

Identifier	NFR-02
Title	Reliability Requirement

Requirement	Database should be synchronized to cloud every 5 minutes. Database should be synchronized to cloud every 5 minutes
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4.2.3 Security Requirement

The system should be secure as it contains personal information about the customer.

Identifier	NFR-03
Title	Security Requirement
Requirement	Customer's personal details shall be encrypted. Customer's credit card details shall be deleted from database after checkout date

4.2.4 Maintainability Requirement

Identifier	NFR-04
Title	Maintainability Requirement
Requirement	No method in any object may exceed 100 lines of code. System failure recovery shall be within 40 mins

4.2.5 Portability requirement

System shall be accessible on mobile devices.

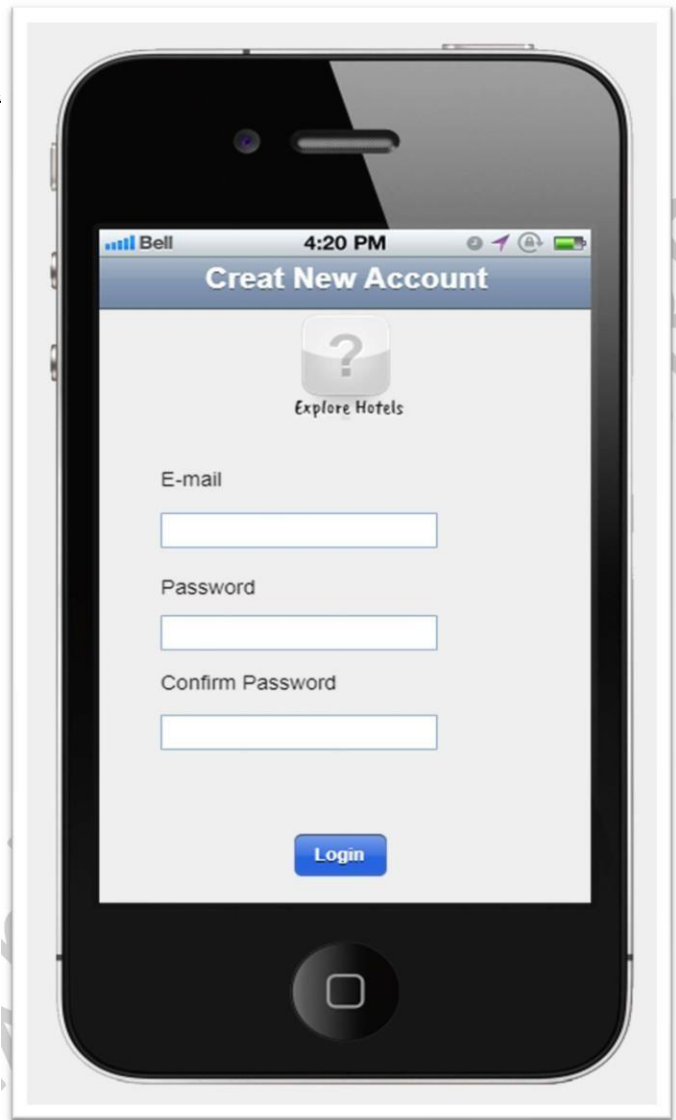
Identifier	NFR-04
Title	Portability requirement
Requirement	System shall be accessible on Google Chrome, Firefox, Safari, Opera and Internet explorer

5. USER INTERFACE DESIGN (MOKEUPS)

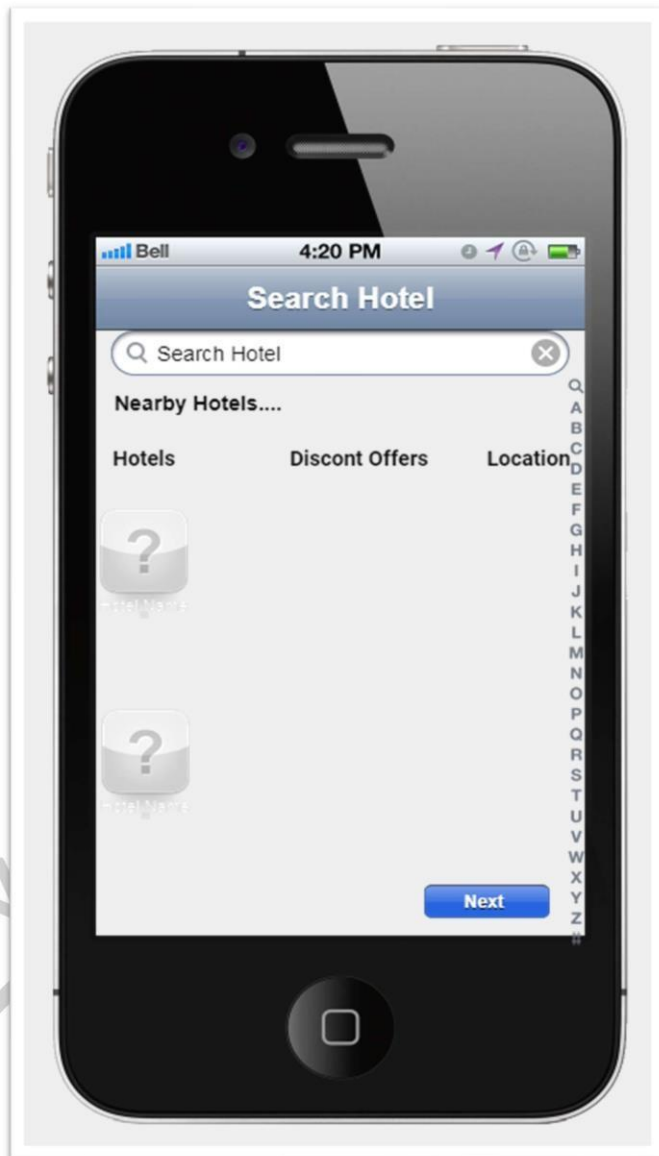
5.1-sign in page



5.2- Create Account



5.3-Search Hotel



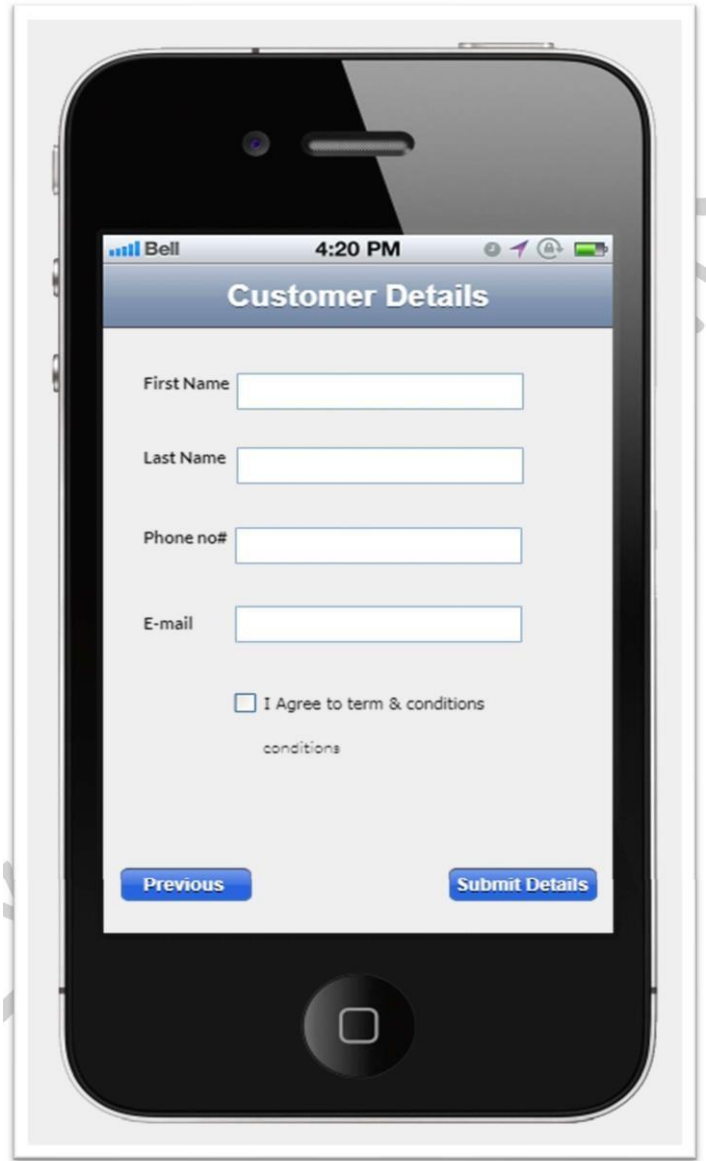
5.4-Check Room Availability



5.5-Selection of Room



5.6-Customer Details



5.7-Payment Details

The screenshot shows a mobile app interface for the 'Payment Details' screen. At the top, the status bar shows 'Bell' and '4:20 PM'. The title bar is blue with the text 'Payment Details'. Below the title bar, there is a room selection summary: a question mark icon, 'Standered single Room', and 'No. of Rooms :1'. The main form area contains three input fields: 'Credit/Debit Card No.', 'Expiry Date', and 'CVV'. Below these fields is a small note: 'Note: Card details will be used for authentication purpose only and the payment will be charged when customer arrives'. There is a checkbox labeled 'I Agree to term & conditions'. At the bottom of the form, there is a blue button labeled 'Total price 65EUR'. At the very bottom of the screen, there are two blue buttons: 'Previous' and 'Continue'.

Bell 4:20 PM

Payment Details

? Standered single Room
No. of Rooms :1

Credit/Debit Card No.

Expiry Date

CVV

Note: Card details will be used for authentication purpose only and the payment will be charged when customer arrives

☐ I Agree to term & conditions

Total price 65EUR

Previous Continue

5.8- Confirm Details

The screenshot shows a mobile app interface for the 'Confirm Details' screen. At the top, the status bar shows 'Bell' and '4:20 PM'. The title bar is blue with the text 'Confirm Details'. Below the title bar, there is a room selection summary: a question mark icon, 'Standered single Room', and 'No. of Rooms :1'. The main form area displays the user's details: 'First Name : Jhon', 'Last Name : Smith', 'Phone no# : 03*****', and 'E-mail : *****'. To the right of these details, it shows 'Card Type: VISA' and 'Card No. : *****'. Below the user details, there are two date pickers: 'Arrival Date' and 'Departur Date', both showing 'DD/MM/YY'. At the bottom of the form, there is a blue button labeled 'Total price 65EUR'. At the very bottom of the screen, there are two blue buttons: 'Previous' and 'Confirm'.

Bell 4:20 PM

Confirm Details

? Standered single Room
No. of Rooms :1

First Name : Jhon
Last Name : Smith
Phone no# : 03*****
E-mail : *****

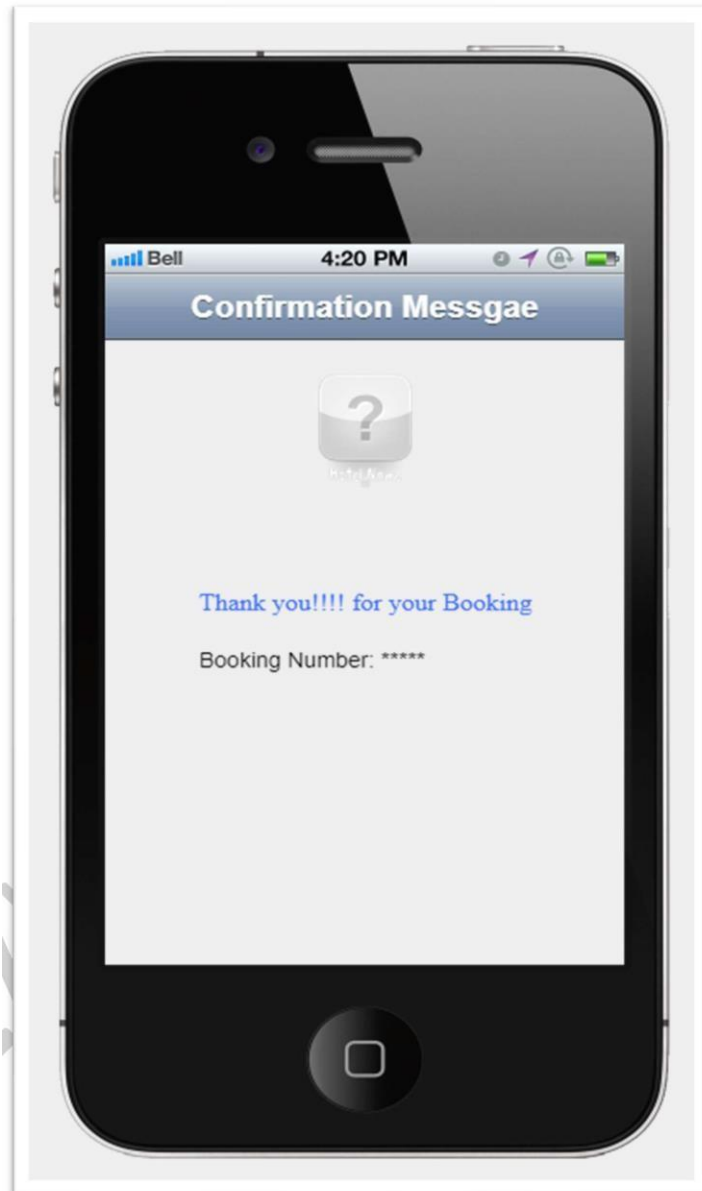
Card Type: VISA
Card No. : *****

Arrival Date DD/MM/YY Departur Date DD/MM/YY

Total price 65EUR

Previous Confirm

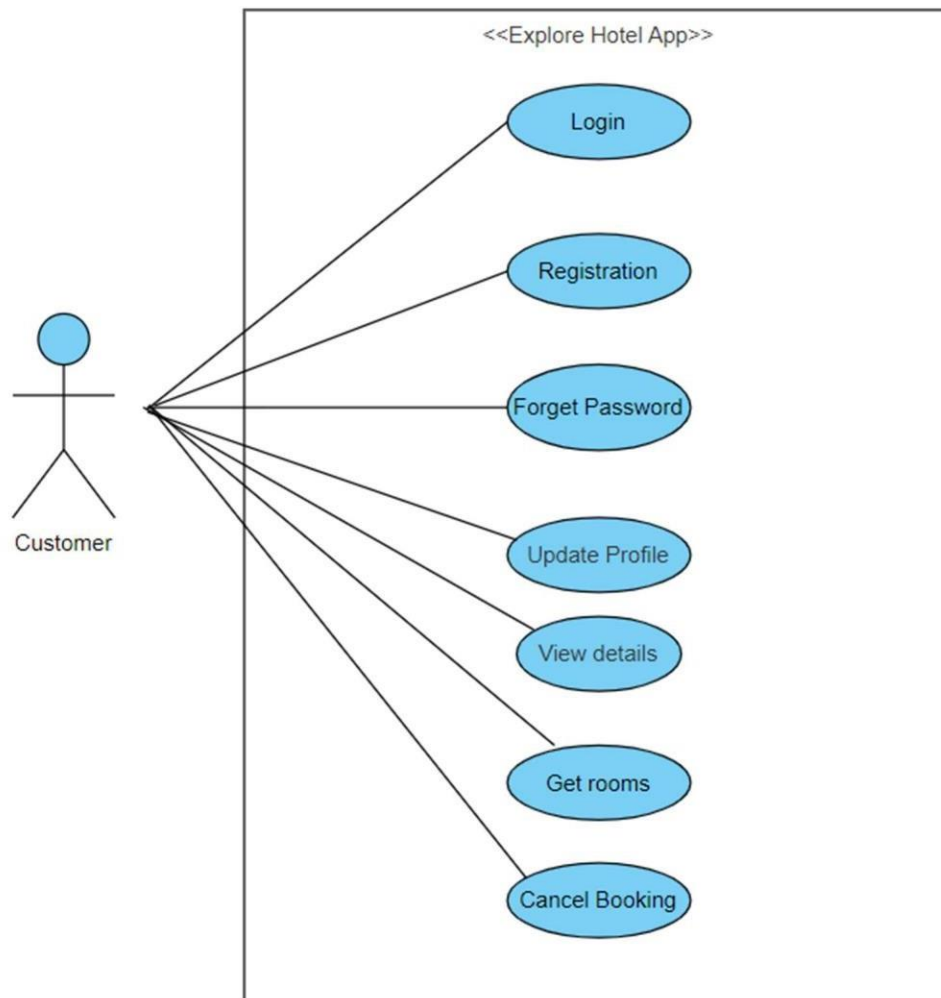
5.9- Confirmation Message



6. Diagrams

6.1 Use-Case Diagram

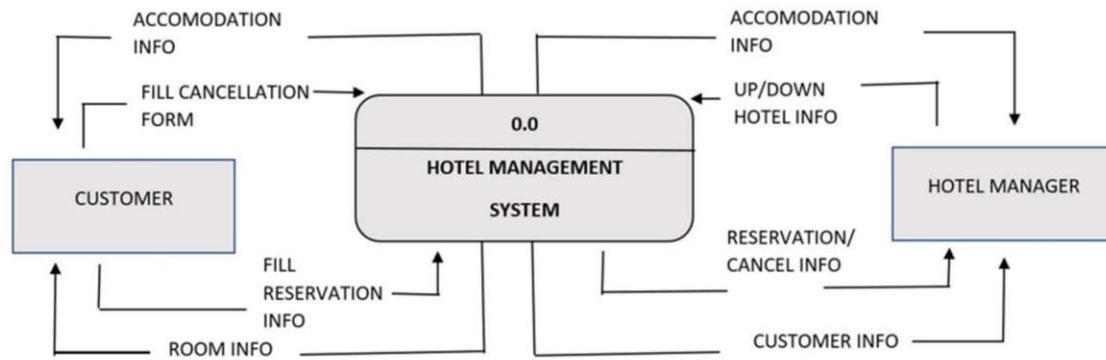




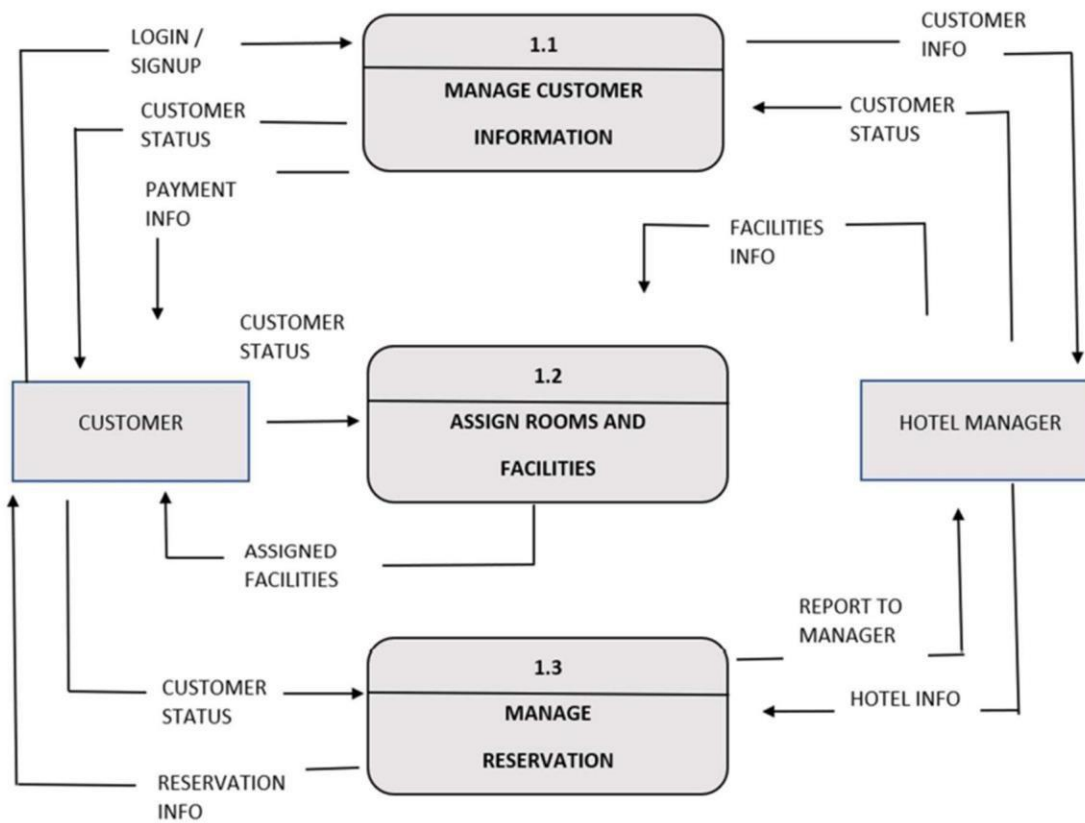


6.2 Data Flow Diagram

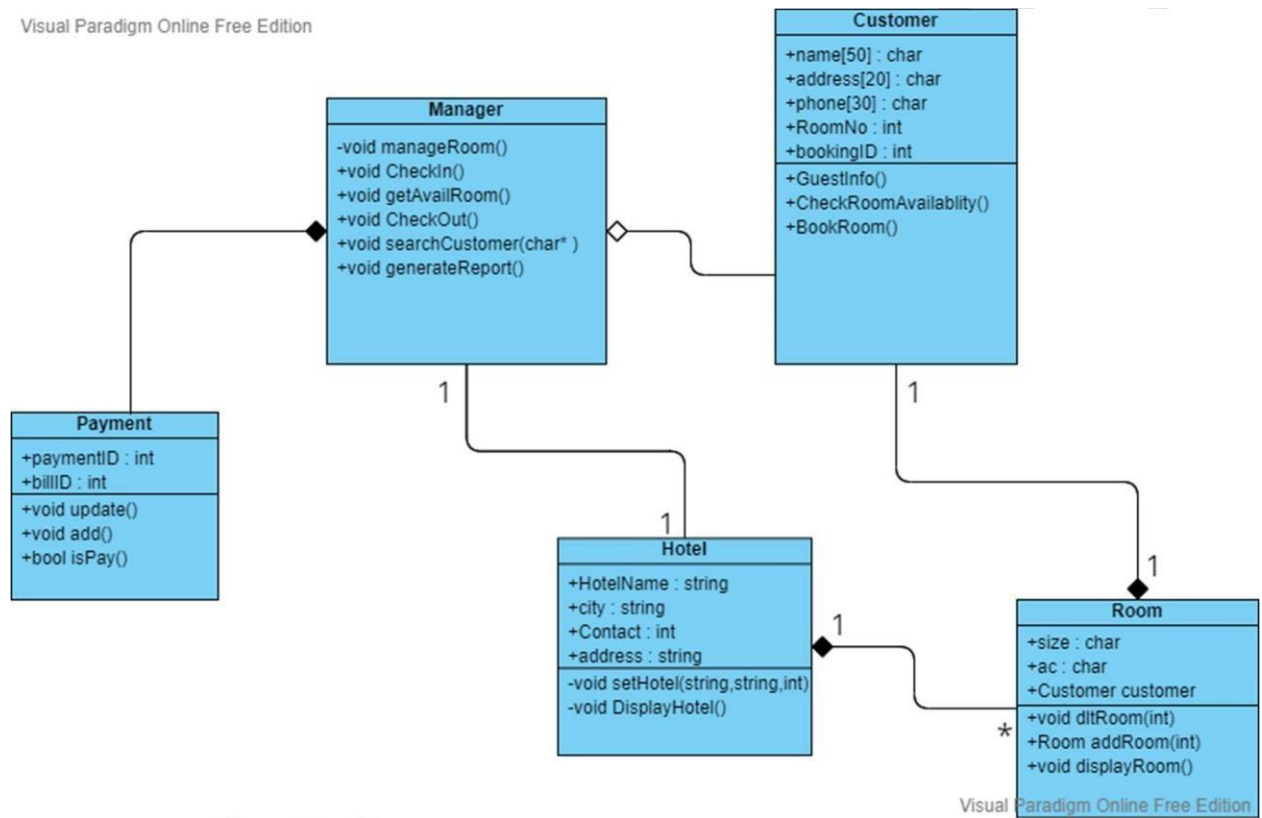
LEVEL -0



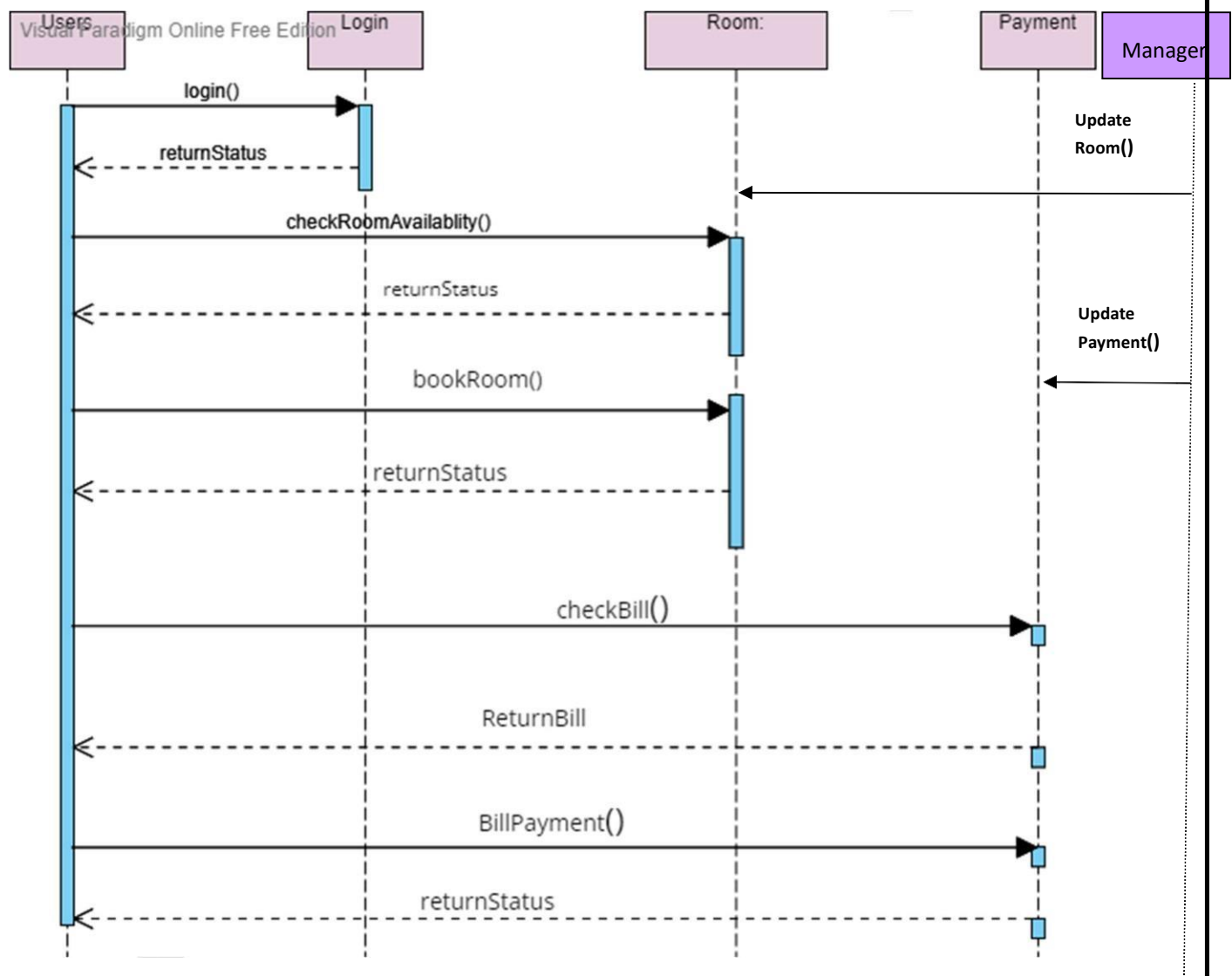
LEVEL -1



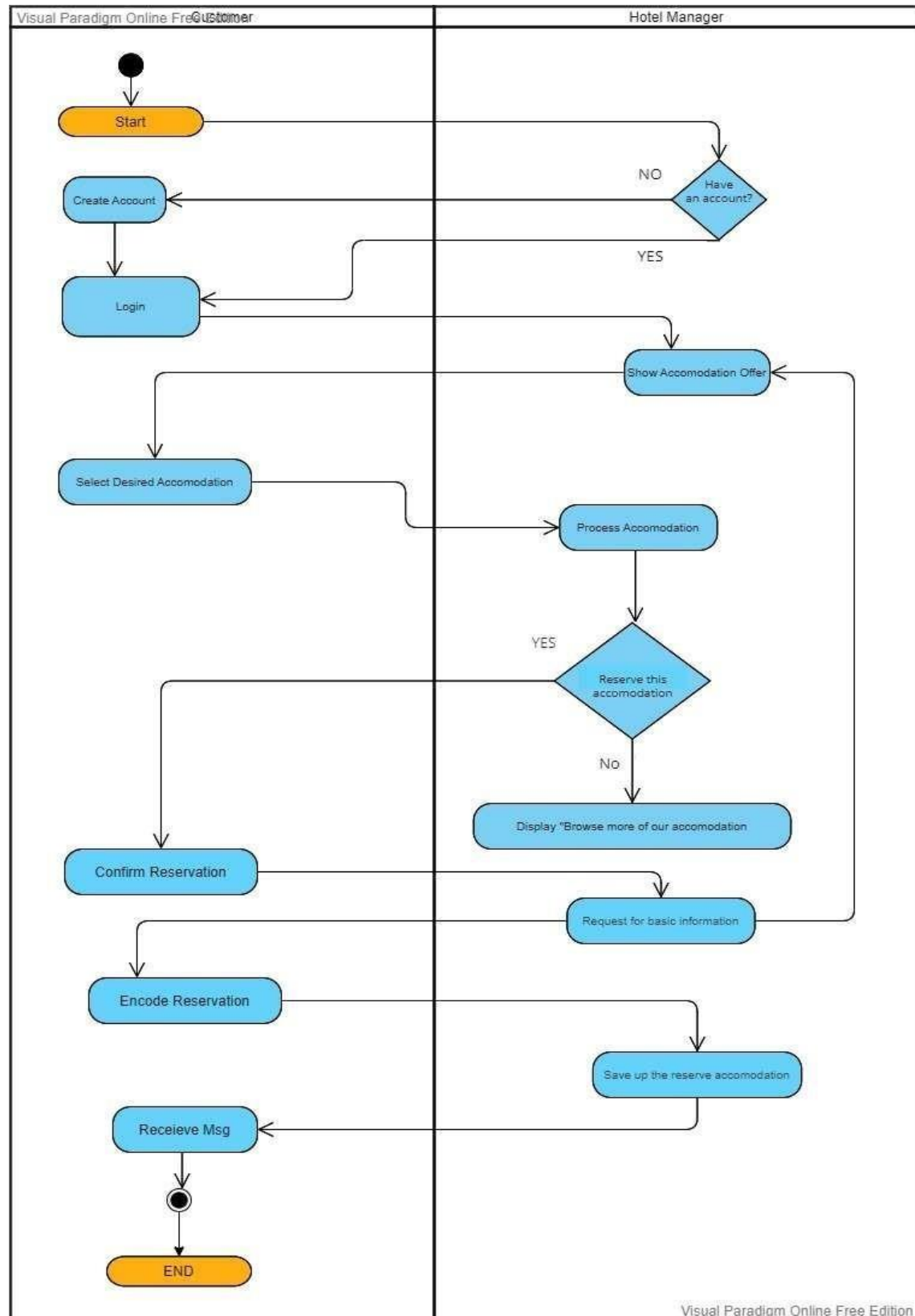
6.3 Class Diagram



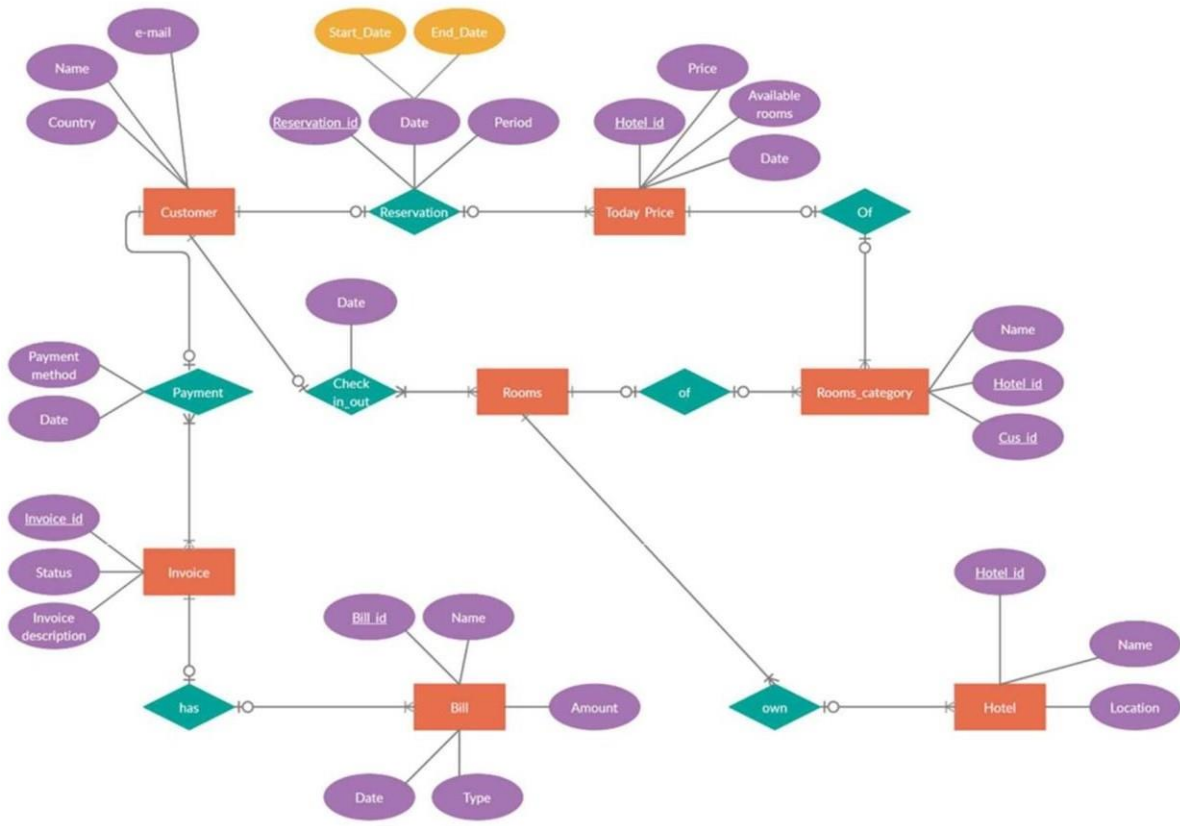
6.4 Sequence Diagram



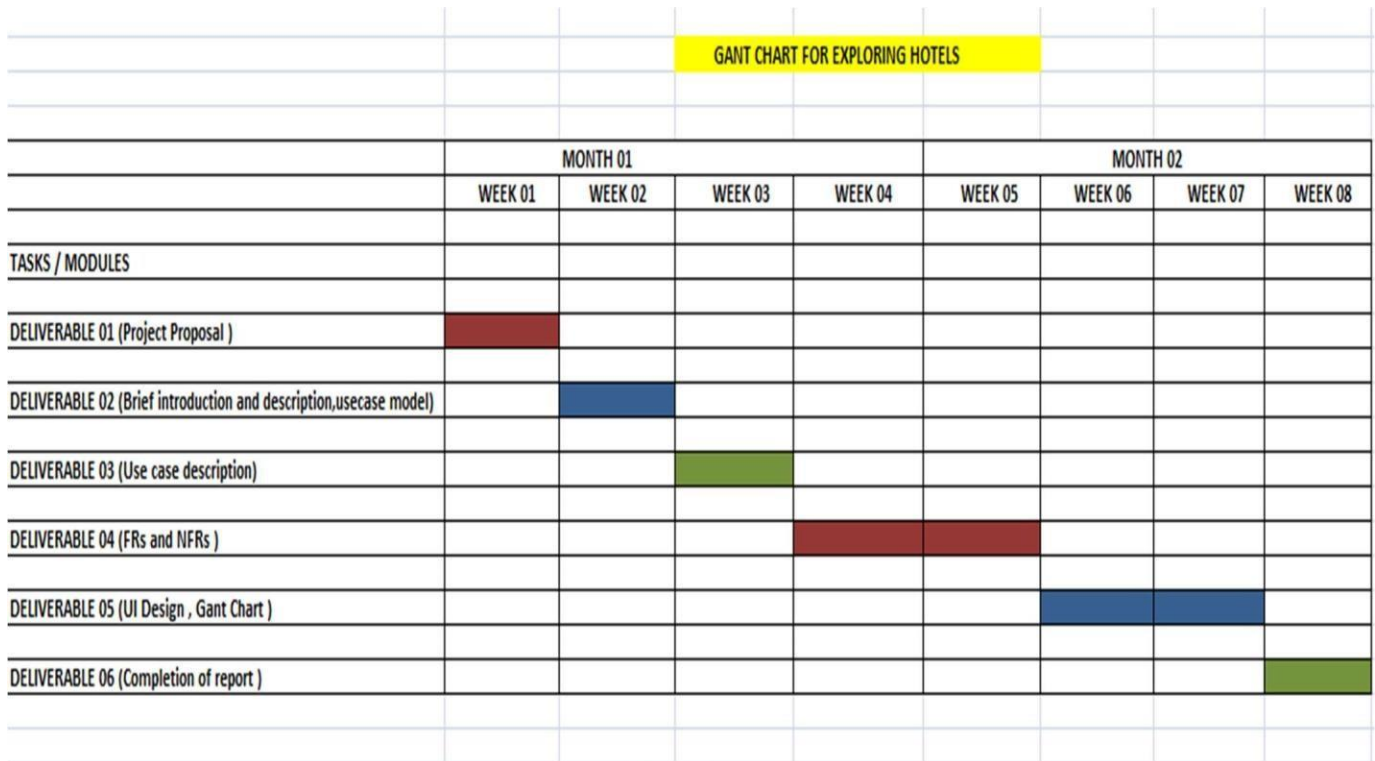
6.5 Activity Diagram



6.6 ERD Diagram



7. Gant chart



THE END