HOTEL MANAGEMENT SYSTEM

Software Requirement specification

Table of Contents:

Project Schedule:

Week	Activity Description	Planned Date of Completion	Actual Date
1.	Analyze the Case Study	18thMar 2021	19th Mar 2021
2.	Create Data Flow diagrams and Use Case diagram	26th Mar 2021	28th Mar 2021
3.	Create State-Chart diagram and Activity diagram, designed user side web pages	31st Mar 2021	31st Mar 2021
4.	Create Class, Object and Package diagram, designed admin side web pages	5th April 2021	4th April 2021
5.	Create Sequence, Collaboration, Component, Deployment Diagram	10th April 2021	11th April 2021
6.	Designed remaining web-pages for users and admin along with their databases.	17th April 2021	17th April 2021
7.	Testing and SRS document completion	30th April 2021	29th April 2021

Introduction

The Software Requirements Specification (SRS) will provide a detailed description of the requirements for the Hotel Management System(HMS). This SRS will give a complete understanding of what is to be expected of the HMS to be constructed. The clear understanding of the HMS and its functionality will allow for the correct software to be developed for the end user and will be used for the development of the future stages of the project. From this SRS, the HMS can be designed, constructed, and finally tested.

Purpose:

In this Hotel Management System (HMS), the Software Requirement Specification (SRS) main objective is to provide a base for the foundation during this project. It offers a correct and detailed understanding of how to work and what to be expected by the end users. On the idea of detailed understanding of SRS it'll be helpful for the forthcoming developers by providing a blueprint to help in maintaining and modifying this project in line with the necessities.

Project Scope:

The Hotel Management System (HMS) project is a software where it is intended for operating the online reservations for room and other necessities of the hotel through online. Our Hotel Management System (HMS) has two levels such as Admin and User. By this HMS software it is easy to simplify the everyday process of the hotel. This system can handle the services for the customers real quick for their pleasant stay in the hotel. In order to overcome the drawbacks, this software has the solution to the large amount of file handling happening at the hotel. This software is easy and safe for using and most importantly the efficiency of the information retrieval are some benefits the development team are going to present with this system. Therefore, this system is easy to use and provides easy recovery of errors.

Overall Description

a) Product Perspective:

This Hotel Management System avoids the issues occurring because of the current manual system. The newly introduced system can give a simple access for reservation and it'll contain user friendly functions with engaging interfaces. The system can provide higher choices for the matter of handling massive scale of physical filing system, for the errors occurring in calculations. The ultimate outcome of this project can increase the potency of customers bookings.

b) Product features:

- This product allows customers to book rooms online by entering customers profile information and room details.
- The availability of the rooms are managed by the admin.
- Once the admin confirms the booking based on availability, customers can check the status of the bookings.
- Admin can also manage administrators for the system.

c) User classes and characteristics:

User Classes:

There are two levels in Hotel Management System:

1. Admin
2. User

Characteristics of User Classes:

1. **Admin:**

Admin plays a vital role in the Hotel Management System where the admin has all the access to the hotel system, where admin can go through the user's booking and confirm the reservation of the user based on whether the room is available or not. Admin can print the receipt of the customer stay and collect the payment from the customers after their stay. Payment details depend upon the price of the room booked. Admin can even add or delete the new or existing admin, also can change the username and password accordingly.

2. **User:**

As the user goes through this Hotel Management System, he/she can go through the details, services and view the gallery of the Hotel Management System. Based on their room requirements and prices, the user can book the room by filing the reservation details which contains personal and reservation information. After completion of the booking the user can view their booking status by entering their username.

d) Operating Environment:

Supports all known operating systems such as Windows, Linux. A monitor with minimum resolution of 1024 X 76, keyboard and mouse. A laser printer will be needed to print the receipts. Software is designed to run on any platform above Microsoft Windows 7 (32 bit). XAMPP server is required for database maintenance.

e) Design and Implementation Constraints:

Some design and implementation constraints are applied to maintain the reliability of the system. We can use new tools in this project while designing interfaces of the system. HMS is intended to be very simple and just for basic functionalities. The UI is very simple.

- **Memory:** System requires 2GB space.
- **Language Requirement:** Software must be only in English.
- **Implementation Constraint:** Application is based on HTML, CSS, PHP.
- **Reliability Requirements:** System should sync frequently to the backup server in order to avoid the data loss during failure, so it can be recovered.

System Features

Admin Login: Admin should first login to perform any operation. This feature has high priority. All the list of administrators can login to the admin page using their username and password.

Req-1: The username and password should be valid. If it is invalid then the same page will be displayed.

Manage Rooms: Admin can add or delete rooms. This feature has high priority.

Req-1: The rooms should be added based on room type and bedding type.

Req-2: The rooms are deleted based on the room id.

Manage Administrators: Admin can even add or delete the new or existing admin, also can change the username and password accordingly. This feature has low priority.

Req-1: The username and password are required to manage the administrator.

Status of room bookings: View the room bookings and confirm the booking according to the availability. This feature has high priority.

Req-1: Availability of vacant rooms.

View Payment: Admin can print the receipt of the customer stay. This feature has low priority.

Req-1: Room booking should be successful.

Req-2: All the payments should be calculated perfectly based on their stay.

User Interface

Home Page: The user can go through the details, services and view the gallery of the hotel .This feature has high priority

Reservation: The user can book the room based on their room requirements and prices, by filing the reservation details which contains personal and reservation information. This feature has high priority.

Req-1: Unique Username.

Req-2: No.of days of stay should be given accurately.

Req-3: All the other personal details should be given correctly.

Req-4: Human code verification.

Bookings: In this section the user can view their booking status by entering their username. This feature has high priority.

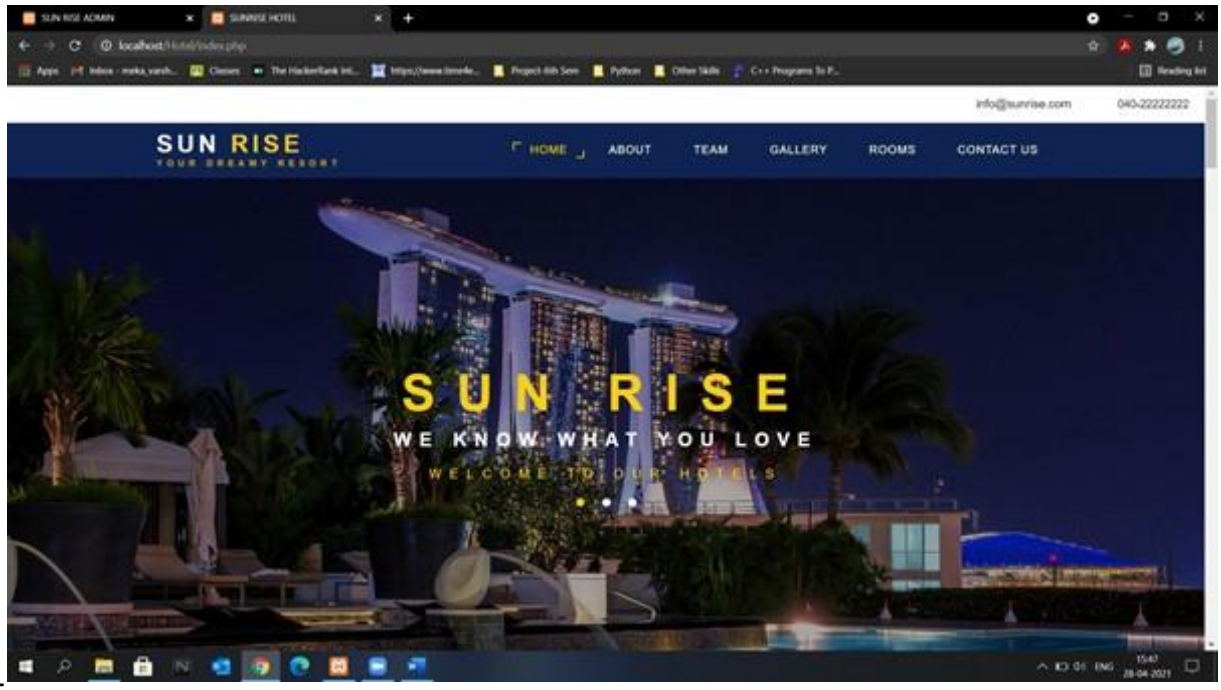
Req-1: Username.

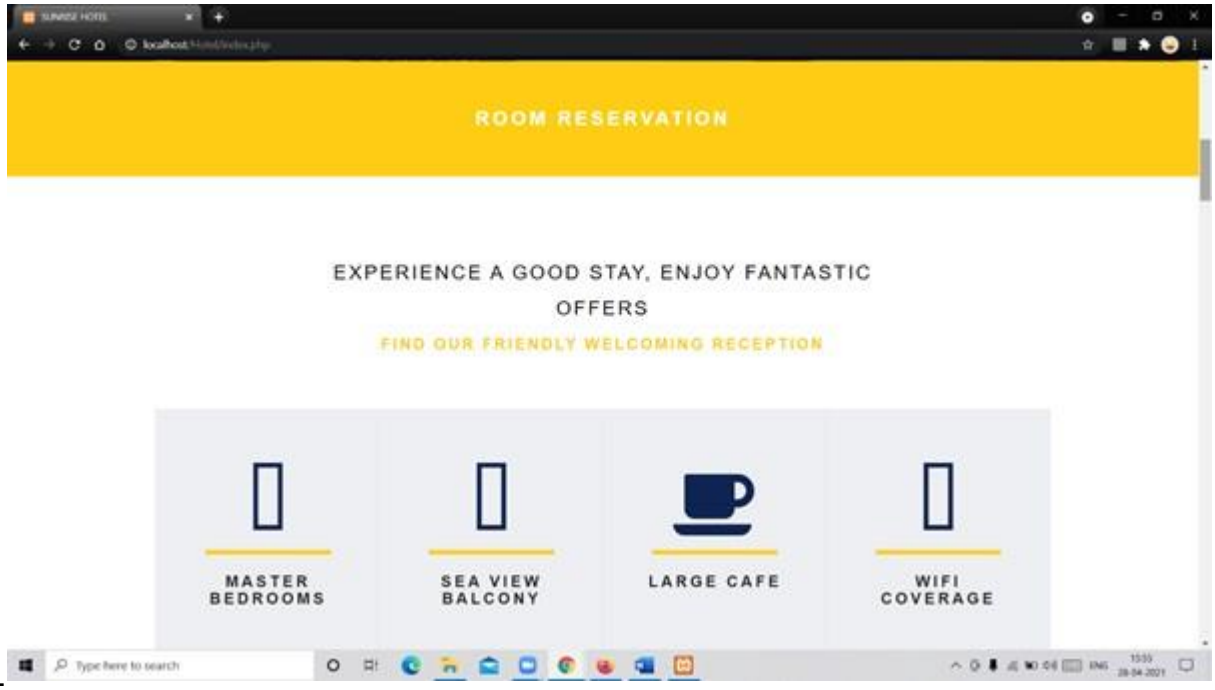
External Interface Requirements

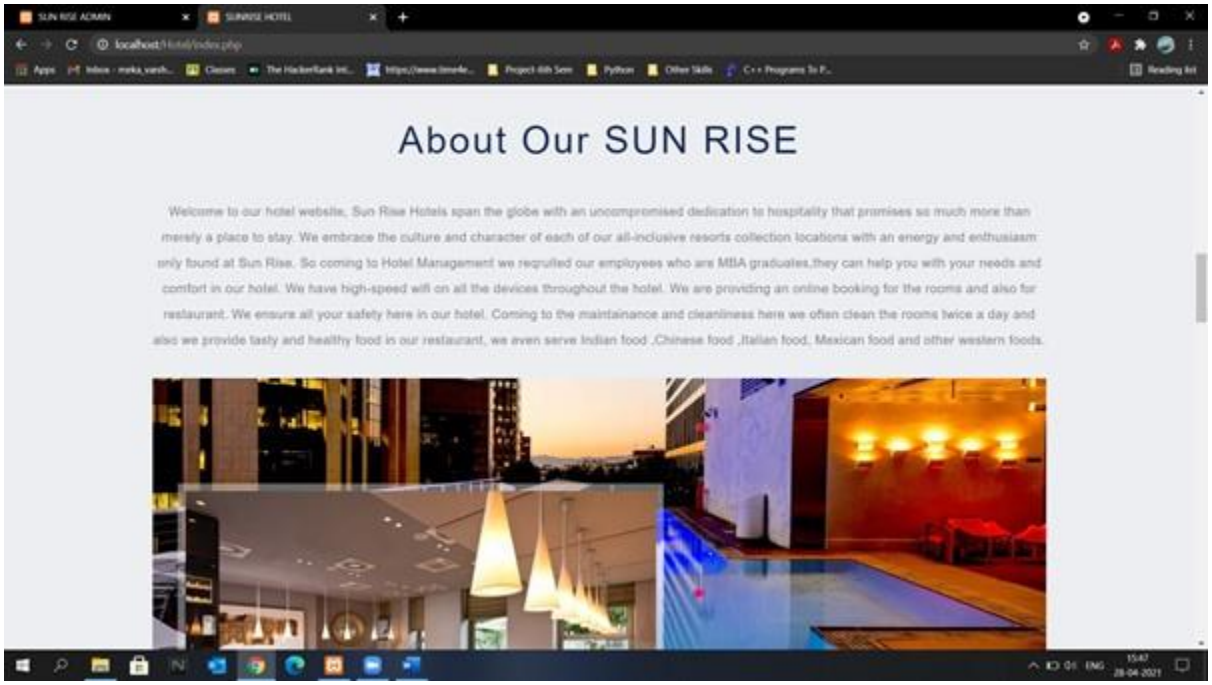
a) User Interfaces:

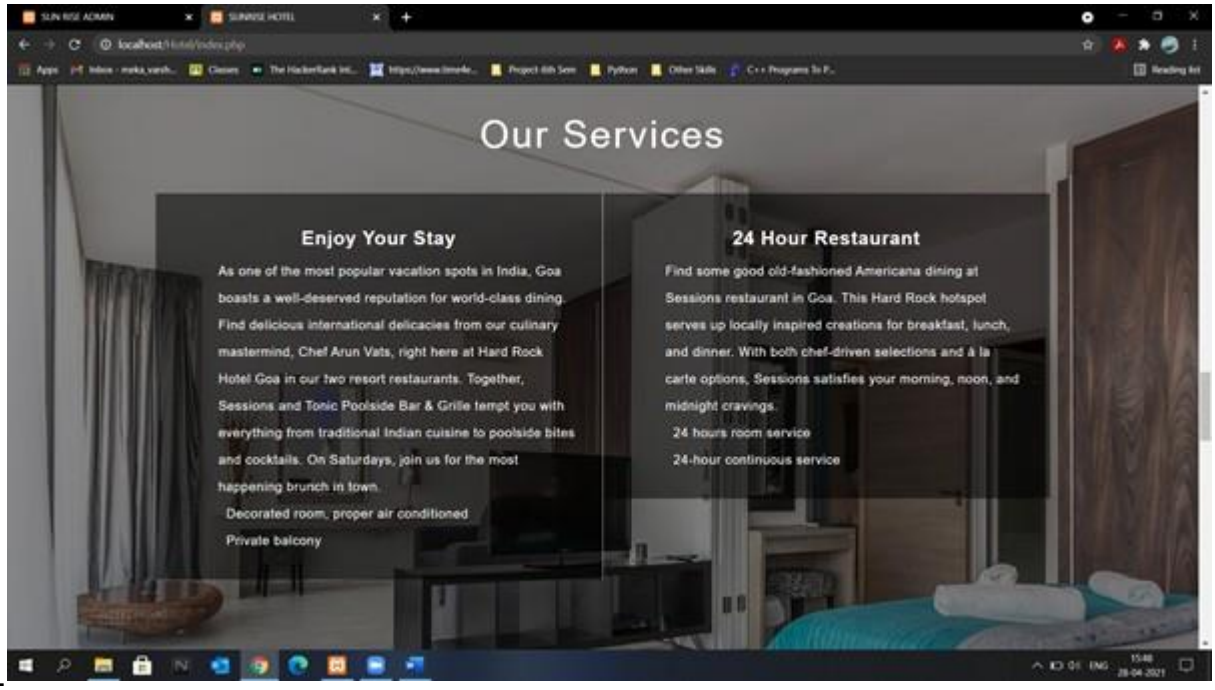
HMS is intended to be very simple and just for basic functionalities. The UI is very simple.

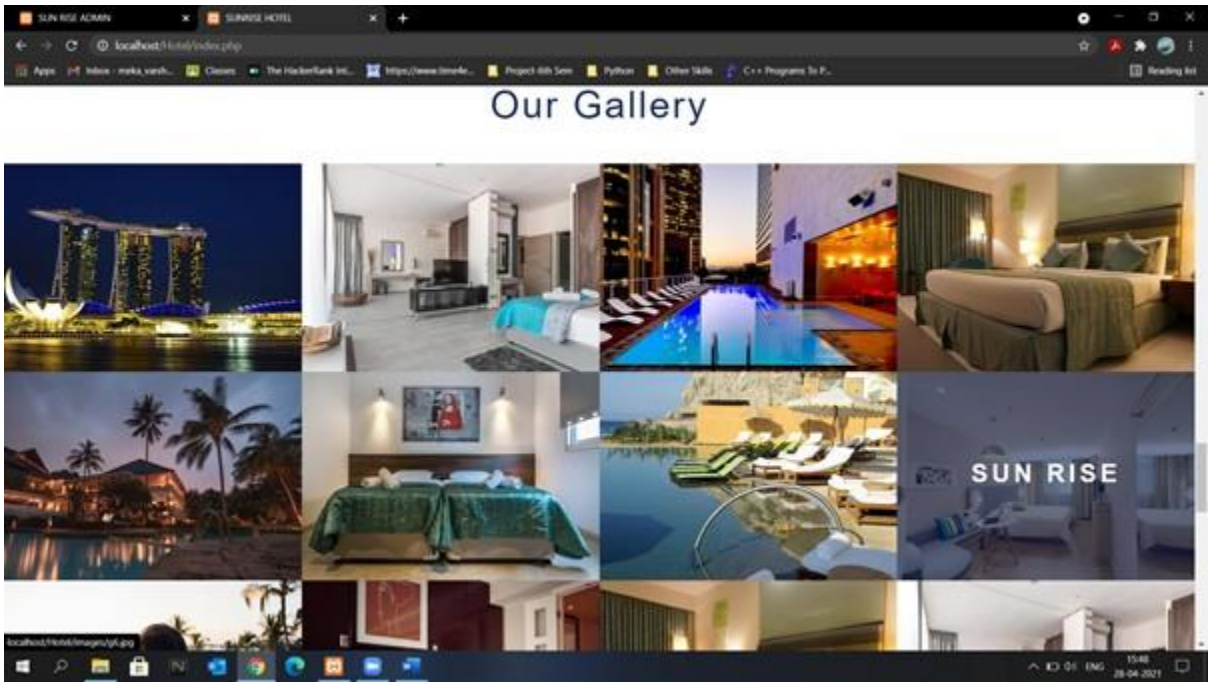
User:




ROOM RESERVATION
EXPERIENCE A GOOD STAY, ENJOY FANTASTIC
OFFERS
FIND OUR FRIENDLY WELCOMING RECEPTION
MASTER BEDROOMS
SEA VIEW BALCONY
LARGE CAFE
WIFI COVERAGE

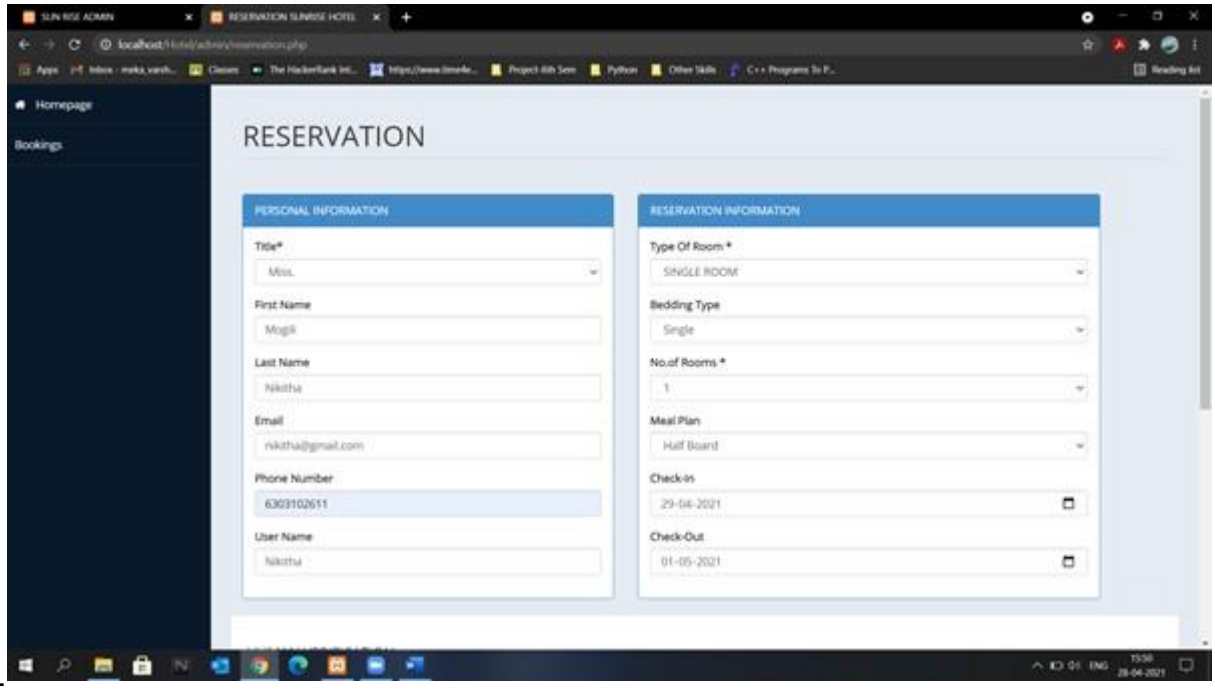

About Our SUN RISE
Welcome to our hotel website, Sun Rise Hotels span the globe with an uncompromised dedication to hospitality that promises so much more than merely a place to stay. We embrace the culture and character of each of our all-inclusive resorts collection locations with an energy and enthusiasm only found at Sun Rise. So coming to Hotel Management we regrulled our employees who are MBA graduates,they can help you with your needs and comfort in our hotel. We have high-speed wifi on all the devices throughout the hotel. We are providing an online booking for the rooms and also for restaurant. We ensure all your safety here in our hotel. Coming to the maintainance and cleanliness here we often clean the rooms twice a day and also we provide tasty and healthy food in our restaurant, we aven serve Indian food ,Chinese food ,Italian food, Mexican food and other western foods.

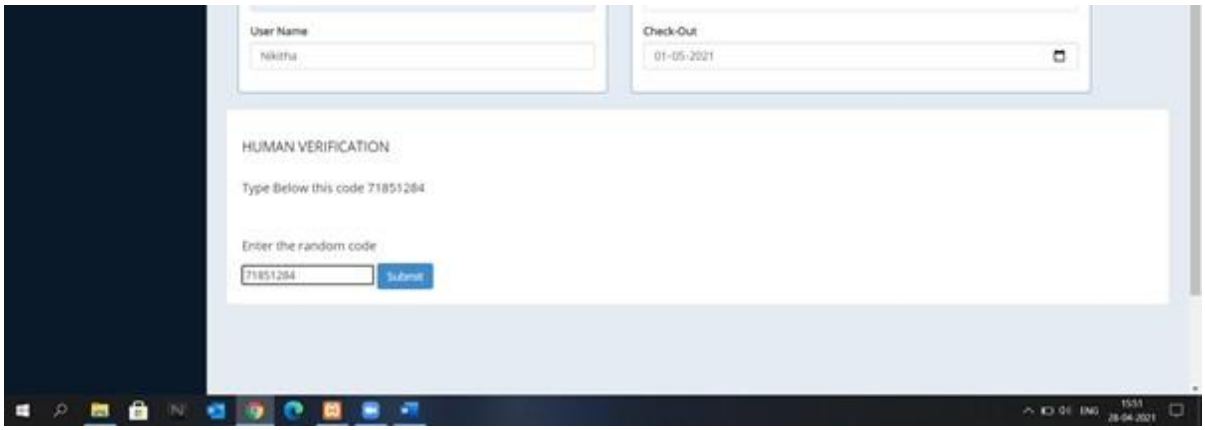

Our Services
Enjoy Your Stay
As one of the most popular vacation spots in India, Goa boasts a well-deserved reputation for world-class dining. Find delicious international delicacies from our culinary mastermind, Chef Arun Vats, right here at Hard Rock Hotel Goa in our two resort restaurants. Together, Sessions and Tonic Poolside Bar & Grille tempt you with everything from traditional Indian cuisine to poolside bites and cocktails. On Saturdays, join us for the most happening brunch in town.
Decorated room, proper air conditioned
Private balcony
24 Hour Restaurant
Find some good old-fashioned Americana dining at Sessions restaurant in Goa. This Hard Rock hotspot serves up locally inspired creations for breakfast, lunch, and dinner. With both chef-driven selections and à la carte options, Sessions satisfies your morning, noon, and midnight cravings.
24 hours room service
24-hour continuous service


Our Gallery
SUN RISE


Rooms And Rates
Deluxe Room
Rs. 4000
Book Now
Superior Room
Rs. 6000
Book Now
Guest House
Rs. 3000
Book Now
Single Room
Rs. 2000
Book Now


Connect With Us
Phone :040-2222222
Email : INFO@SUNRISE.COM
Address : 2-22-222, Sarur Street, Amaravati, Andhra Pradesh


Homepage
Bookings
RESERVATION
PERSONAL INFORMATION
Title*
Miss.
First Name
Mogili
Last Name
Nikitha
Email
nikitha@gmail.com
Phone Number
6303102611
User Name
Nikitha
RESERVATION INFORMATION
Type Of Room *
SINGLE ROOM
Bedding Type
Single
No.of Rooms *
1
Meal Plan
Half Board
Check-In
29-04-2021
Check-Out
01-05-2021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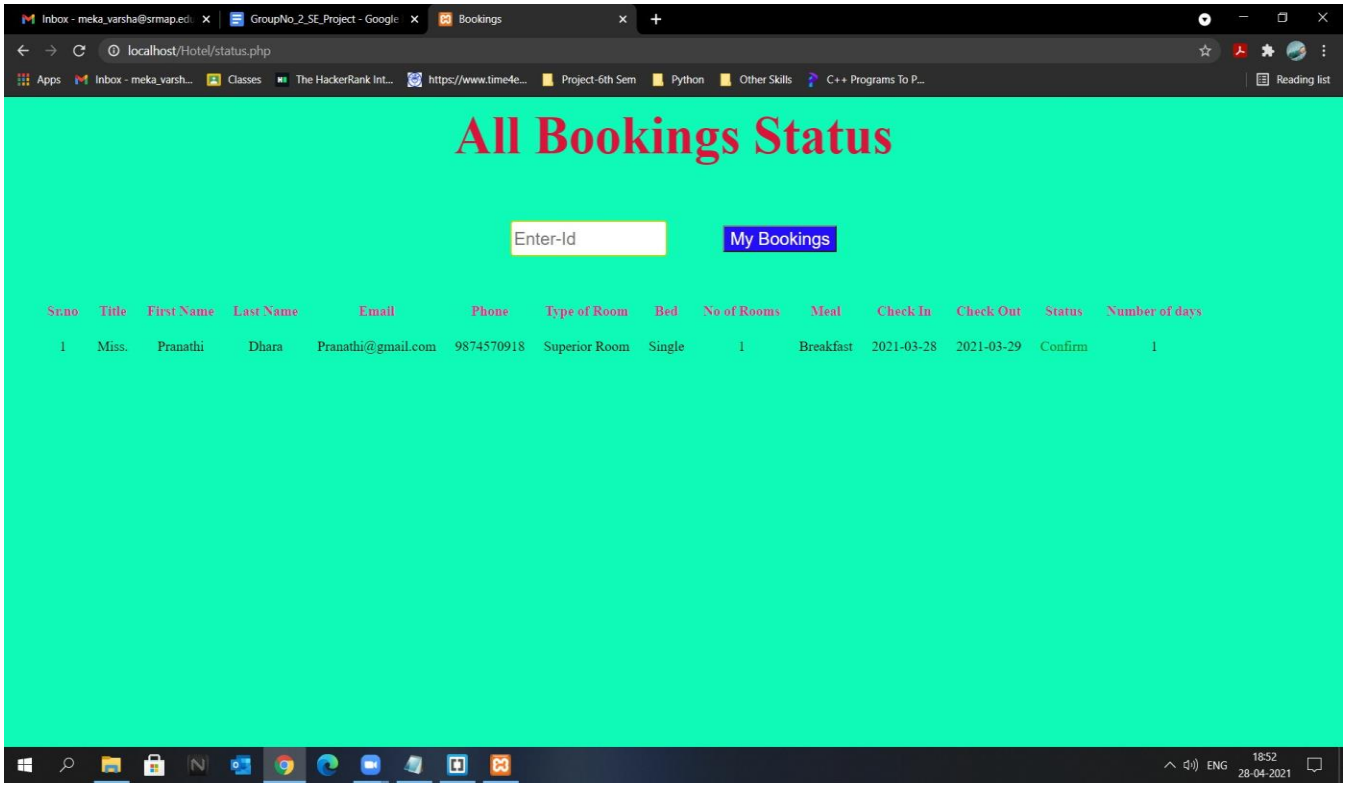
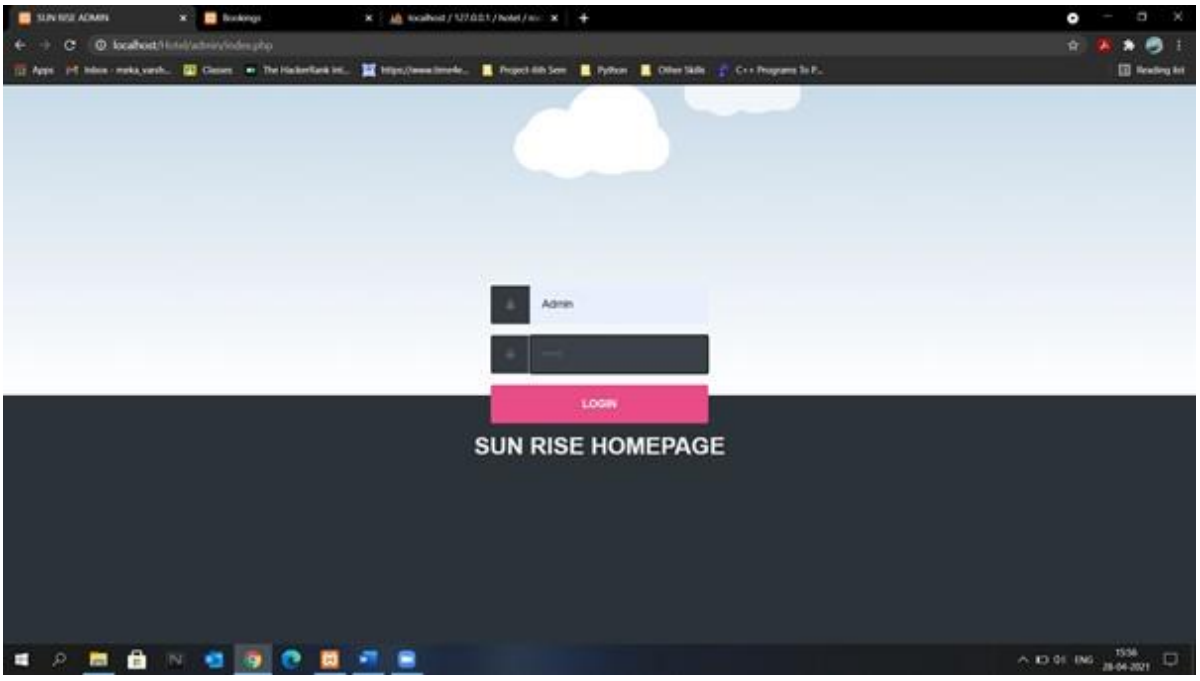
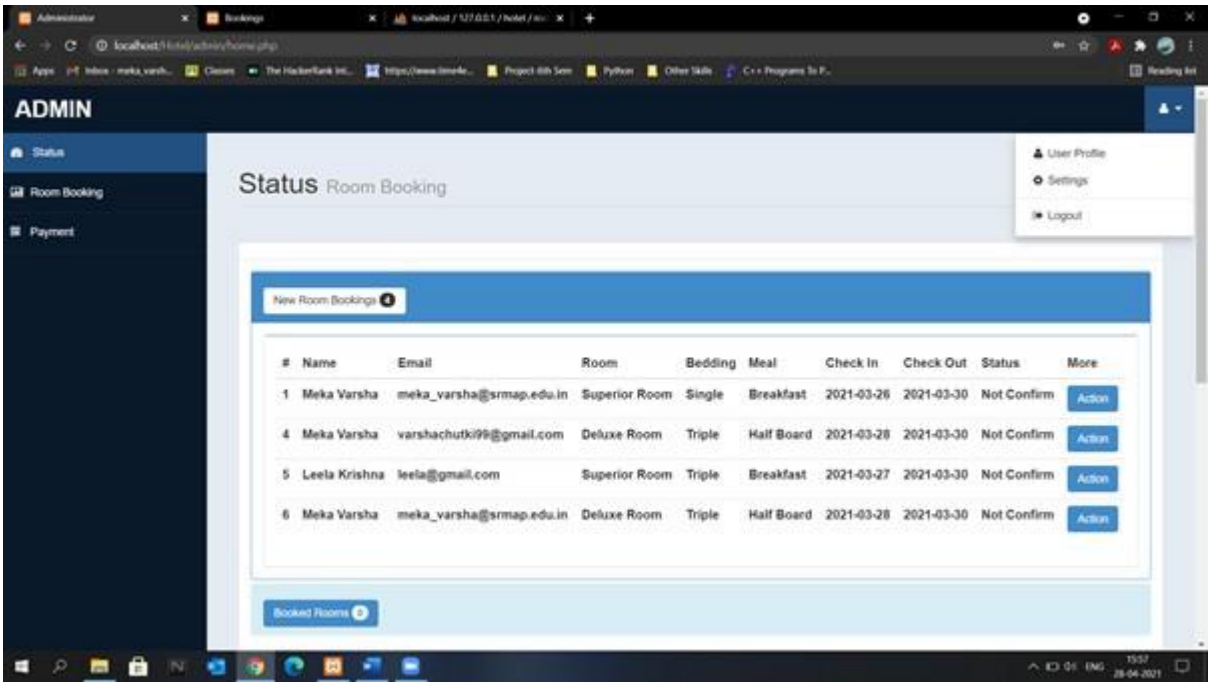
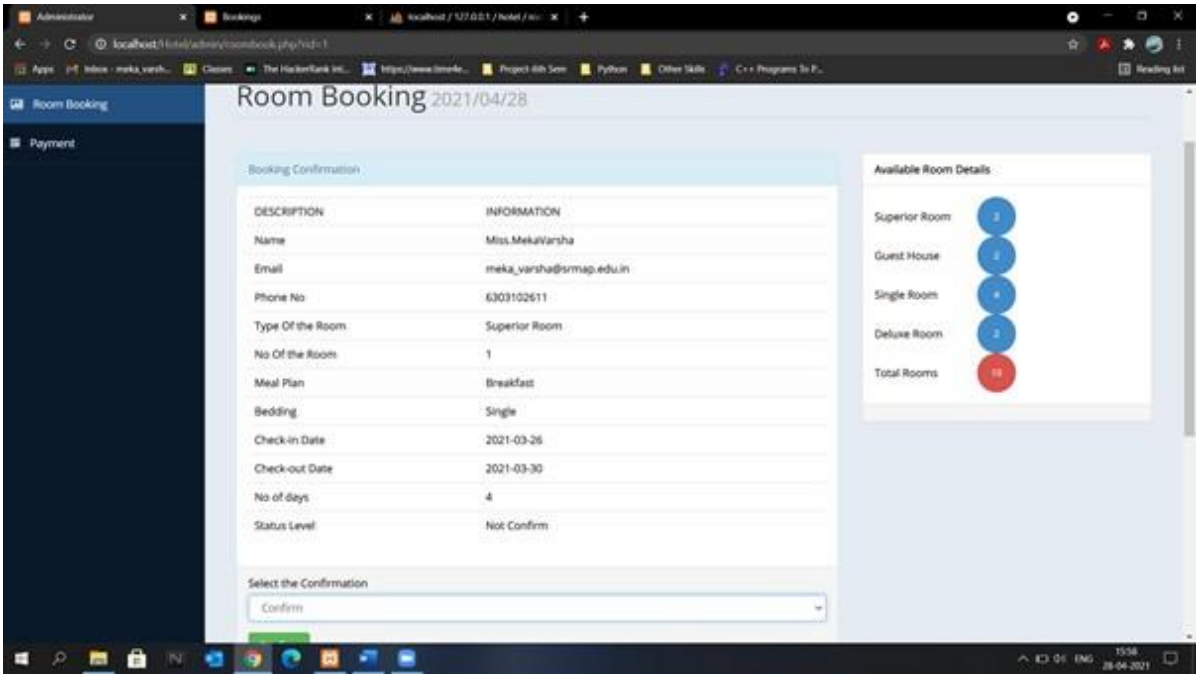
Nikitha
Check-Out
01-05-2021
HUMAN VERIFICATION
Type Below this code 71851284
Enter the random code
71851284
Submit

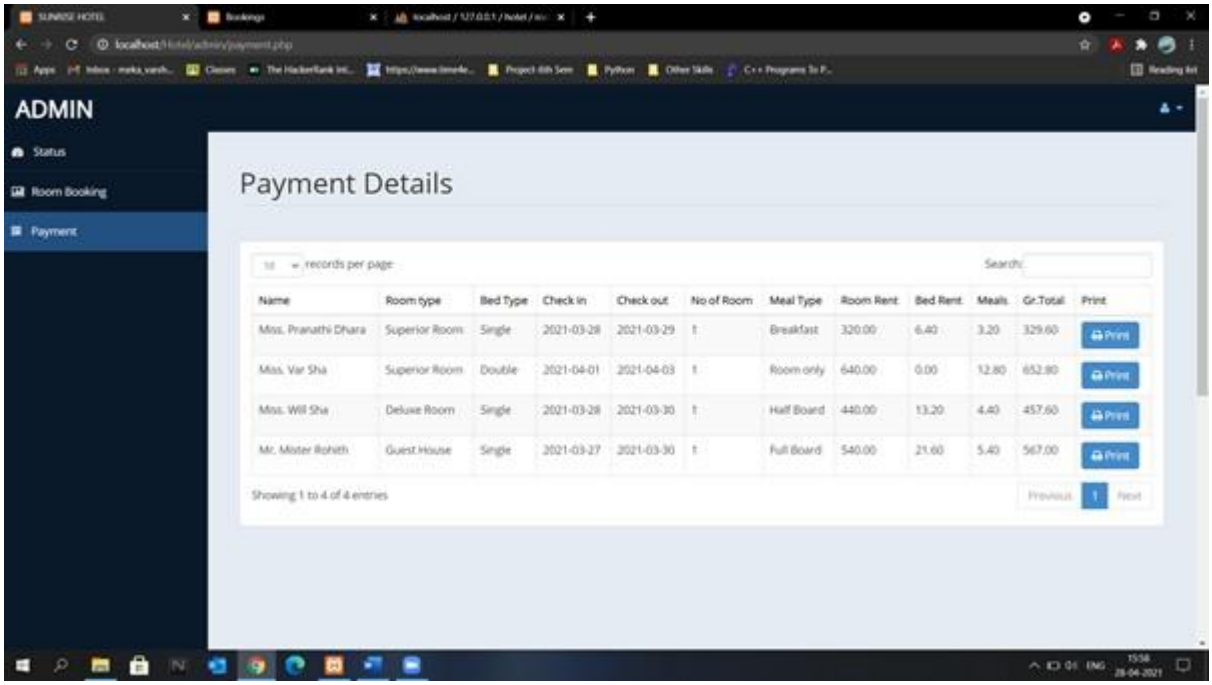

Inbox - meka_varsha@srmap.edu
GroupNo_2_SE_Project - Google
Bookings
localhost/Hotel/status.php
Apps
Inbox - meka_varsh...
Classes
The HackerRank Int...
https://www.time4e...
Project-6th Sem
Python
Other Skills
C++ Programs To P...
Reading list
All Bookings Status
Enter-Id
My Bookings
Sr.no Title First Name Last Name Email Phone Type of Room Bed No of Rooms Meal Check In Check Out Status Number of days
1 Miss. Pranathi Dhara Pranathi@gmail.com 9874570918 Superior Room Single 1 Breakfast 2021-03-28 2021-03-29 Confirm 1
ENG
18:52
28-04-2021

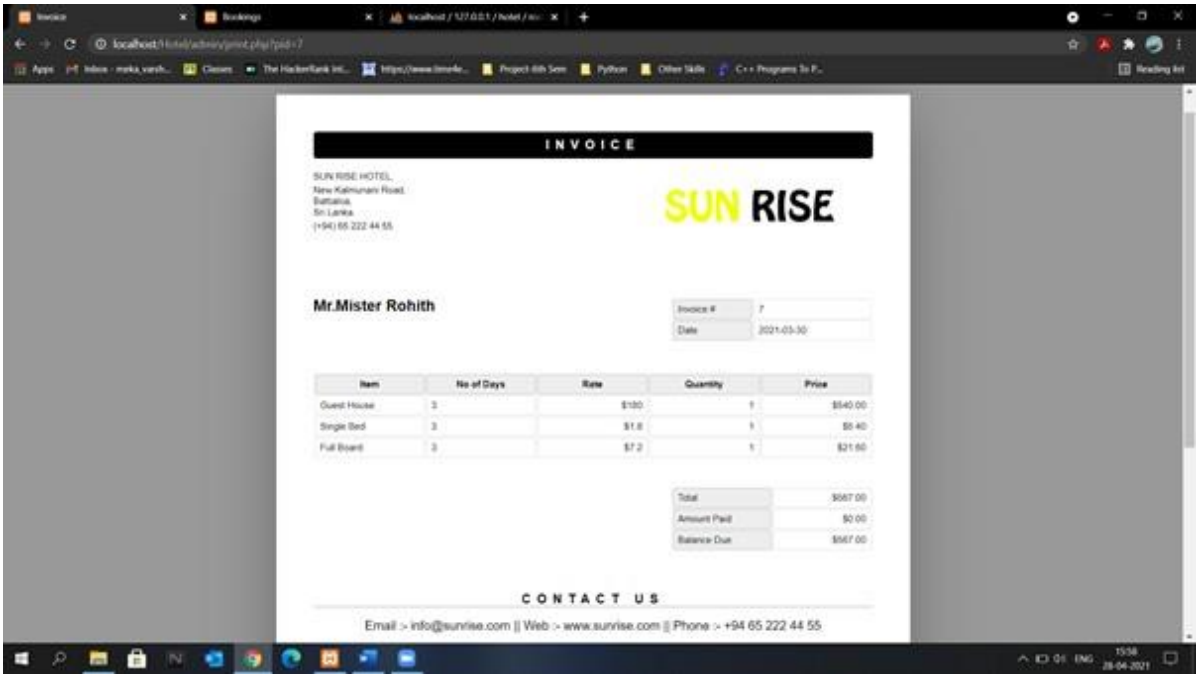
Admin:

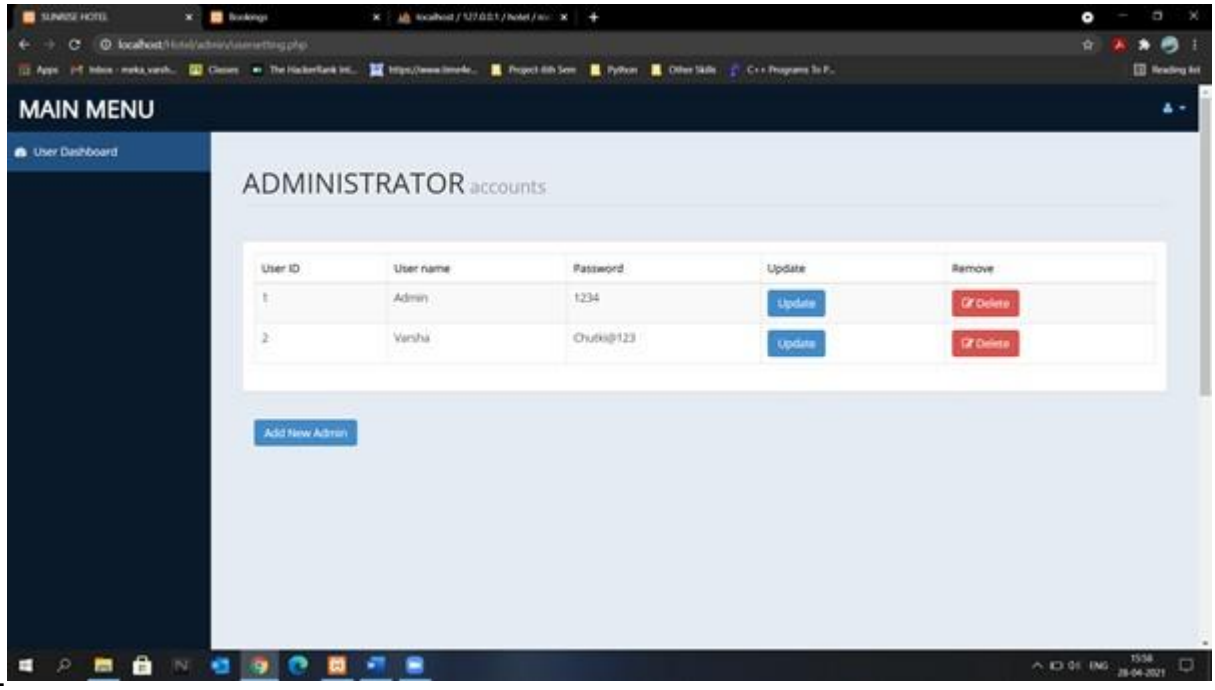

Admin
LOGIN
SUN RISE HOMEPAGE

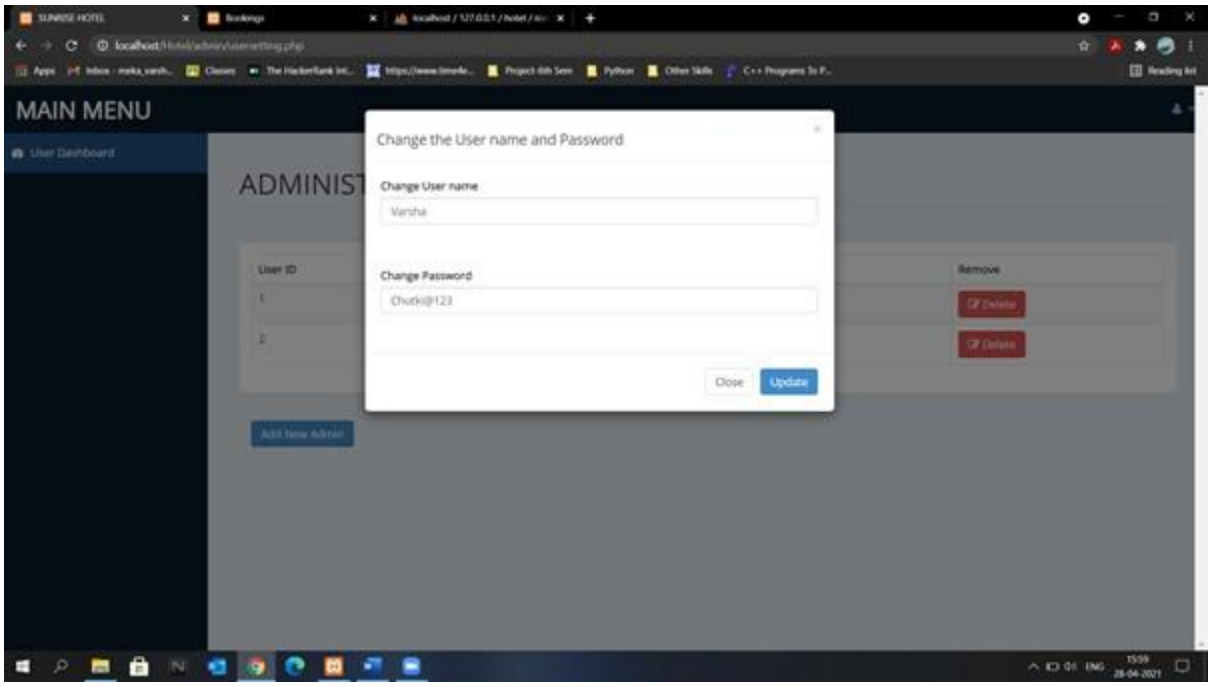

ADMIN
Status
Room Booking
Payment
Status Room Booking
User Profile
Settings
Logout
New Room Bookings 4
Name Email Room Bedding Meal Check In Check Out Status More
1 Meka Varsha meka_varsha@srmap.edu.in Superior Room Single Breakfast 2021-03-26 2021-03-30 Not Confirm Action
4 Meka Varsha varshachutki99@gmail.com Deluxe Room Triple Half Board 2021-03-28 2021-03-30 Not Confirm Action
5 Leela Krishna leela@gmail.com Superior Room Triple Breakfast 2021-03-27 2021-03-30 Not Confirm Action
6 Meka Varsha meka_varsha@srmap.edu.in Deluxe Room Triple Half Board 2021-03-28 2021-03-30 Not Confirm Action
Booked Rooms 0

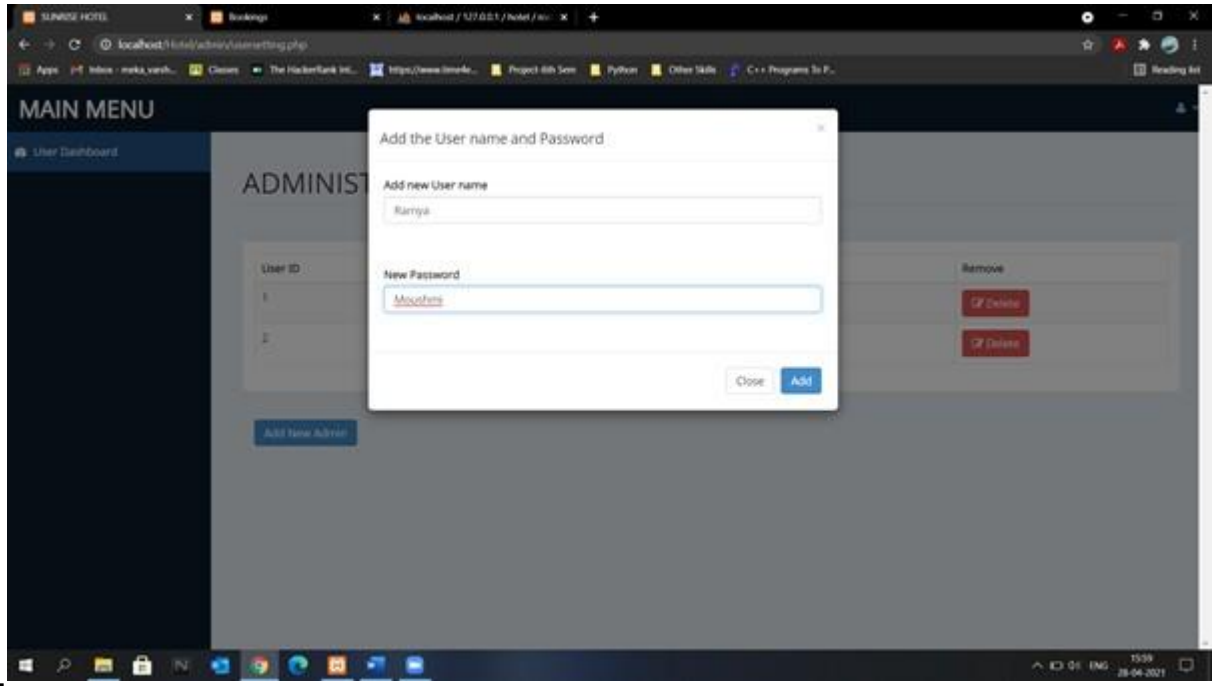

Room Booking
Payment
Room Booking 2021/04/28
Booking Confirmation
DESCRIPTION INFORMATION
Name Miss.MekaVarsha
Email meka_varsha@srmap.edu.in
Phone No 6303102611
Type Of the Room Superior Room
No Of the Room 1
Meal Plan Breakfast
Bedding Single
Check-in Date 2021-03-26
Check-out Date 2021-03-30
No of days 4
Status Level Not Confirm
Select the Confirmation
Confirm
Available Room Details
Superior Room
Guest House
Single Room
Deluxe Room
Total Rooms

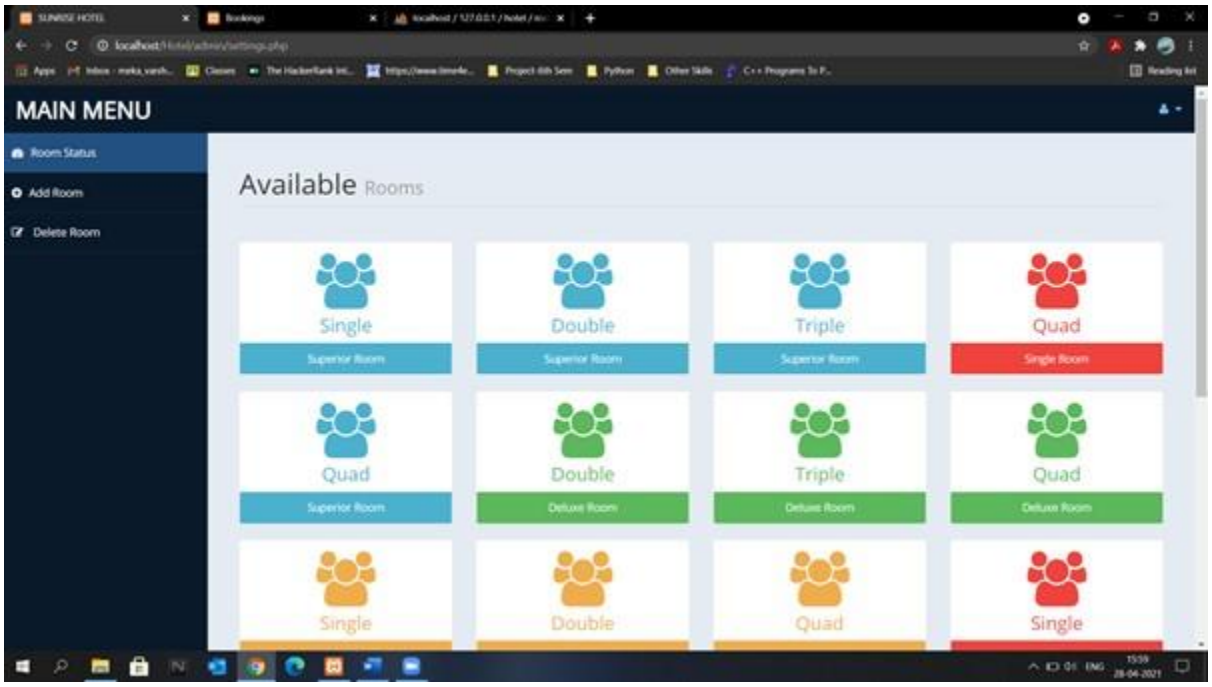

ADMIN
Status
Room Booking
Payment
Payment Details
records per page
Search:
Name
Room type
Bed Type
Check in
Check out
No of Room
Meal Type
Room Rent
Bed Rent
Meals
Gr.Total
Print
Miss. Pranathi Dhara
Superior Room
Single
2021-03-28
2021-03-29
1
Breakfast
320.00
6.40
3.20
329.60
Print
Miss. Var Sha
Superior Room
Double
2021-04-01
2021-04-03
1
Room only
640.00
0.00
12.80
652.80
Print
Miss. Will Sha
Deluxe Room
Single
2021-03-28
2021-03-30
1
Half Board
440.00
13.20
4.40
457.60
Print
Mr. Mister Rohith
Guest House
Single
2021-03-27
2021-03-30
1
Full Board
540.00
21.60
5.40
567.00
Print
Showing 1 to 4 of 4 entries
Previous
1
Next

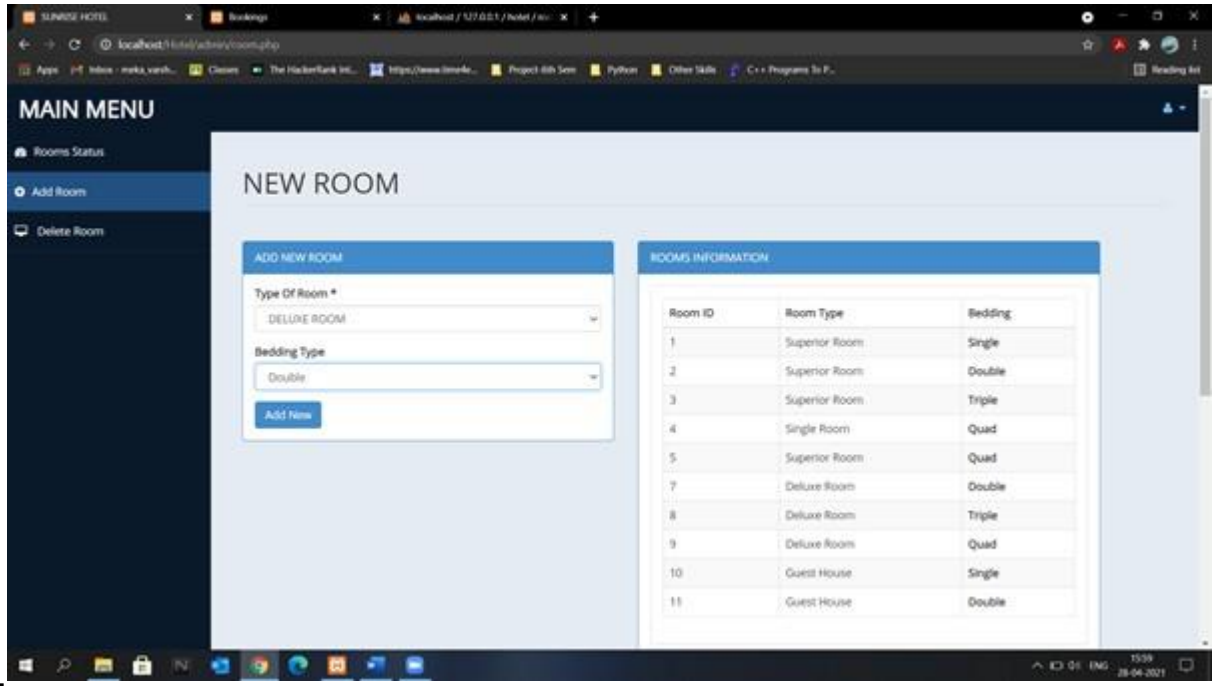

INVOICE
SUN RISE HOTEL
New Kalmunai Road
Batticaloa
Sri Lanka
(+94) 65 222 44 55
SUN RISE
Mr.Mister Rohith
Invoice #
7
Date
2021-03-30
Item
No of Days
Rate
Quantity
Price
Guest House
3
$180
1
$540.00
Single Bed
3
$1.8
1
$5.40
Full Board
3
$7.2
1
$21.60
Total
$567.00
Amount Paid
$0.00
Balance Due
$567.00
CONTACT US
Email :- info@sunrise.com || Web :- www.sunrise.com || Phone :- +94 65 222 44 55

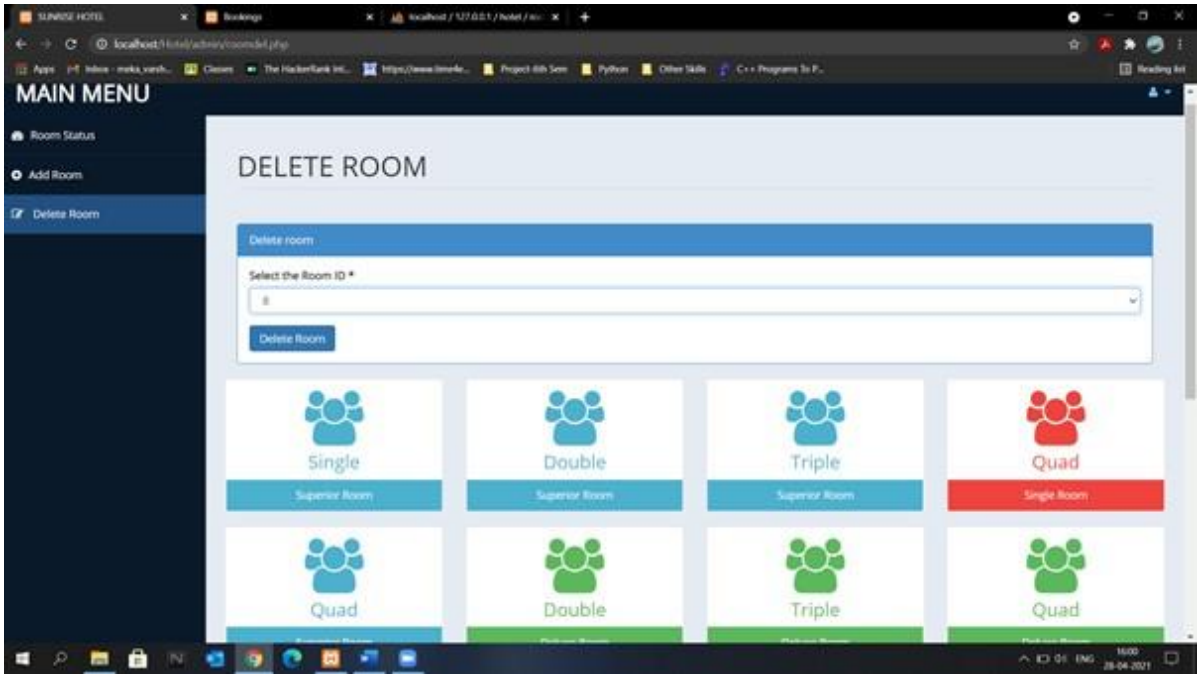

MAIN MENU
User Dashboard
ADMINISTRATOR accounts
User ID
User name
Password
Update
Remove
1
Admin
1234
Update
Delete
2
Vansha
Chutki@123
Update
Delete
Add New Admin


MAIN MENU
User Dashboard
Change the User name and Password
Change User name
Vansha
Change Password
Chutki@123
Close
Update
Add New Admin


MAIN MENU
Add the User name and Password
Add new User name
Ramya
New Password
Moushmi
Close
Add
ADMINIST
User ID
Remove


MAIN MENU
Room Status
Add Room
Delete Room
Available Rooms
Single
Superior Room
Double
Superior Room
Triple
Superior Room
Quad
Single Room
Quad
Superior Room
Double
Deluxe Room
Triple
Deluxe Room
Quad
Deluxe Room
Single
Double
Quad
Single


MAIN MENU
Rooms Status
Add Room
Delete Room
NEW ROOM
ADD NEW ROOM
Type Of Room *
DELUXE ROOM
Bedding Type
Double
Add New
ROOMS INFORMATION
Room ID
Room Type
Bedding
1 Superior Room Single
2 Superior Room Double
3 Superior Room Triple
4 Single Room Quad
5 Superior Room Quad
7 Deluxe Room Double
8 Deluxe Room Triple
9 Deluxe Room Quad
10 Guest House Single
11 Guest House Double


MAIN MENU
Room Status
Add Room
Delete Room
DELETE ROOM
Delete room
Select the Room ID *
Delete Room
Single
Superior Room
Double
Superior Room
Triple
Superior Room
Quad
Single Room
Quad
Double
Triple
Quad

b) Software Interfaces:

Web Server

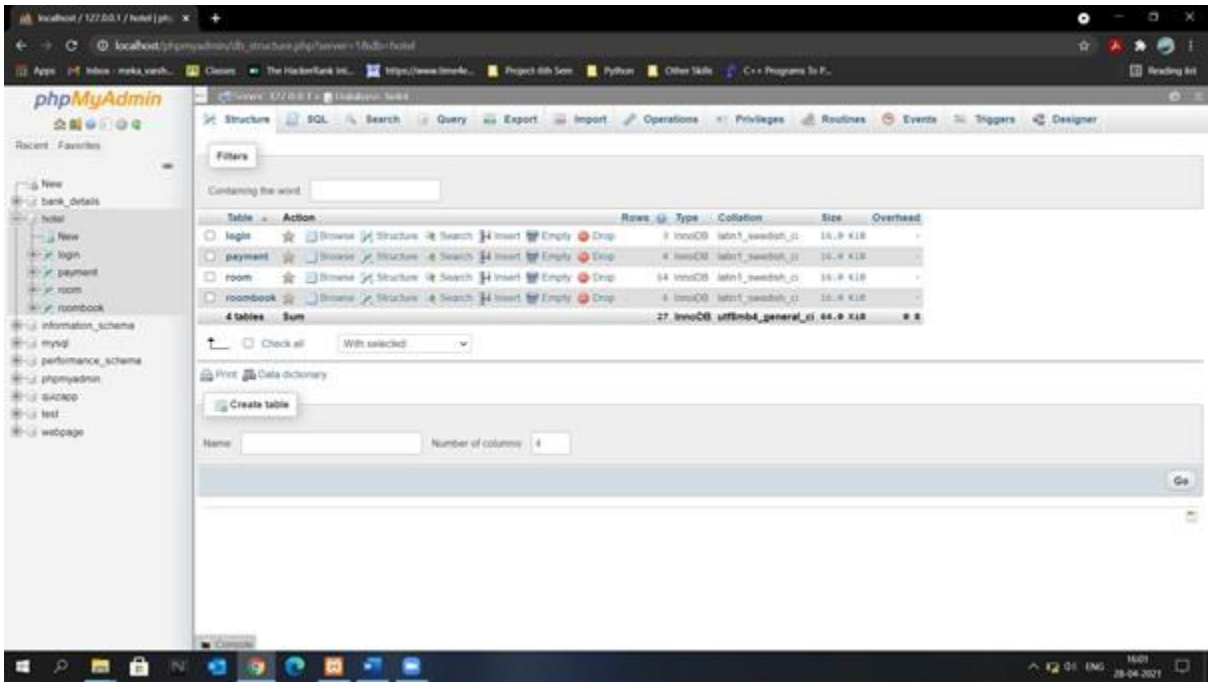
OS (Windows)

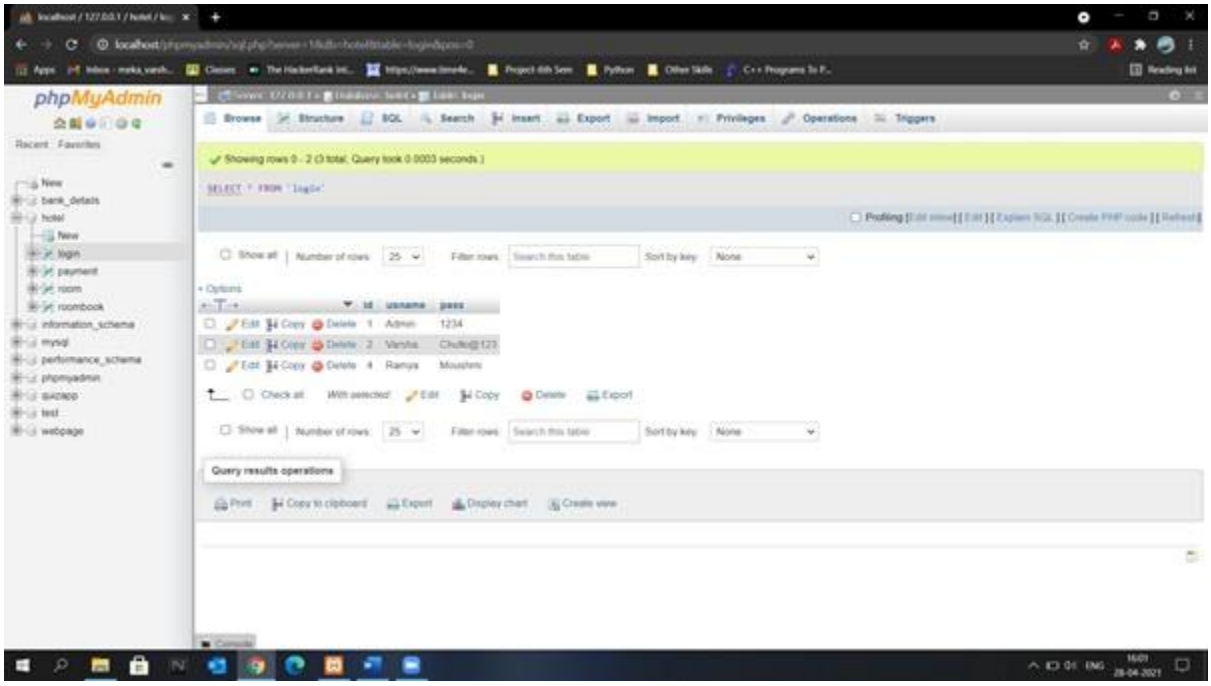
Database Server

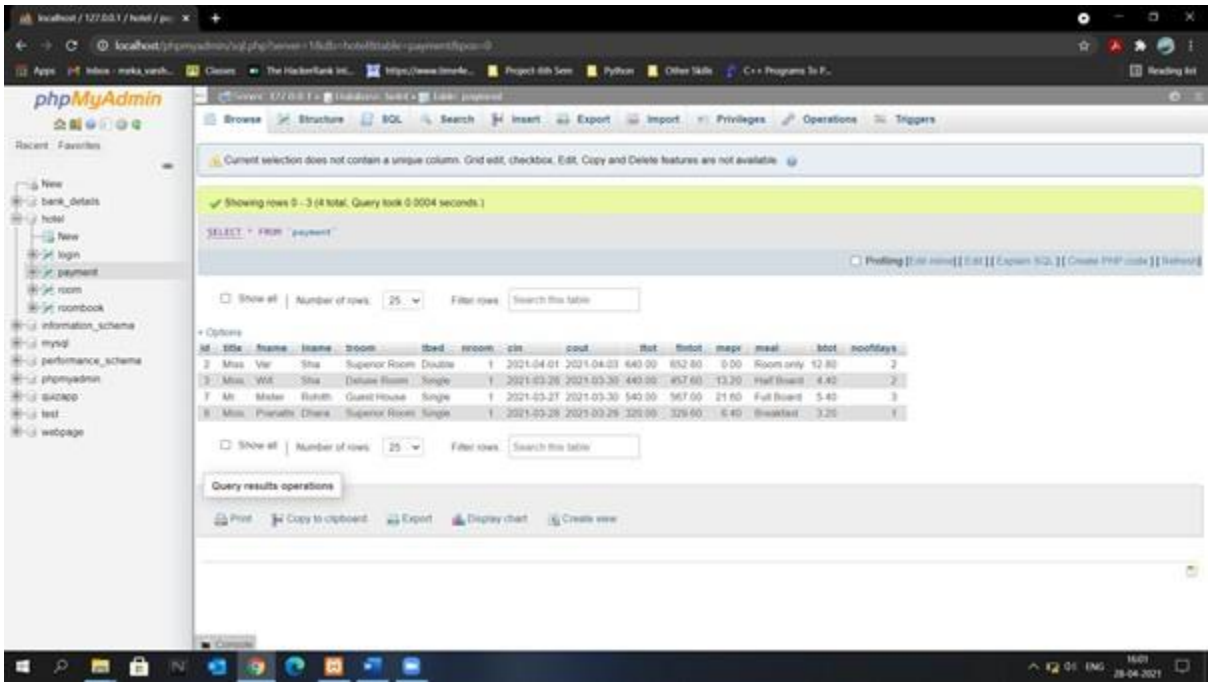
XAMPP, My SQL

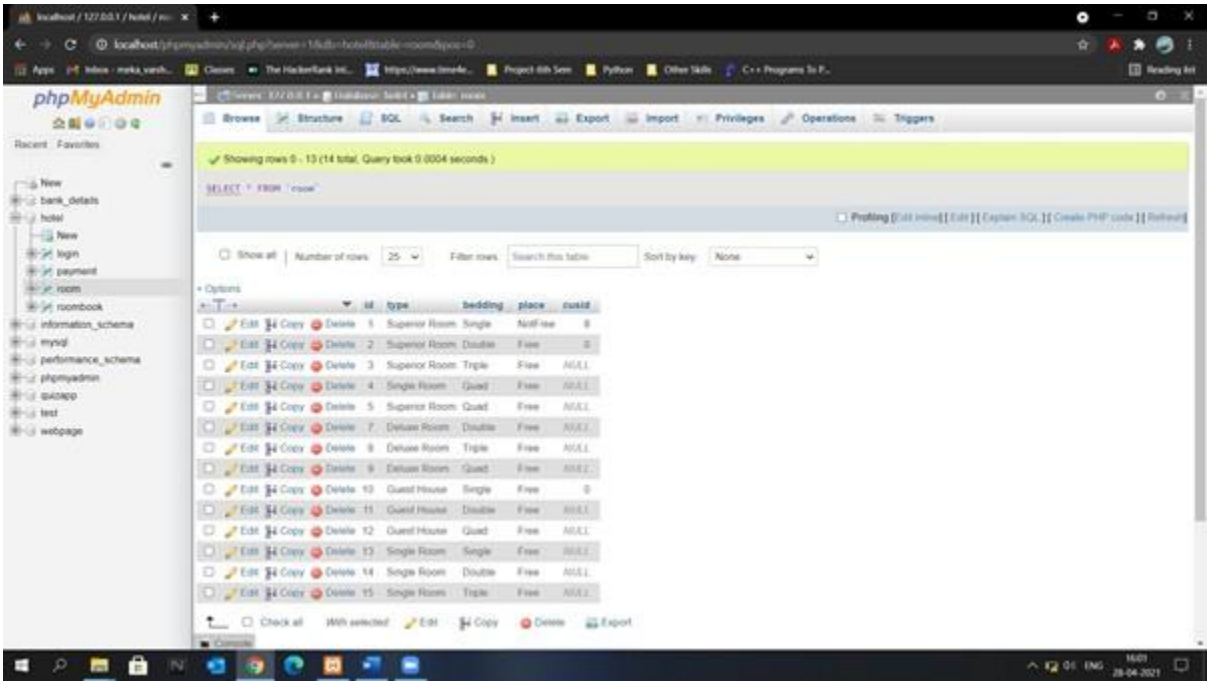
Development End

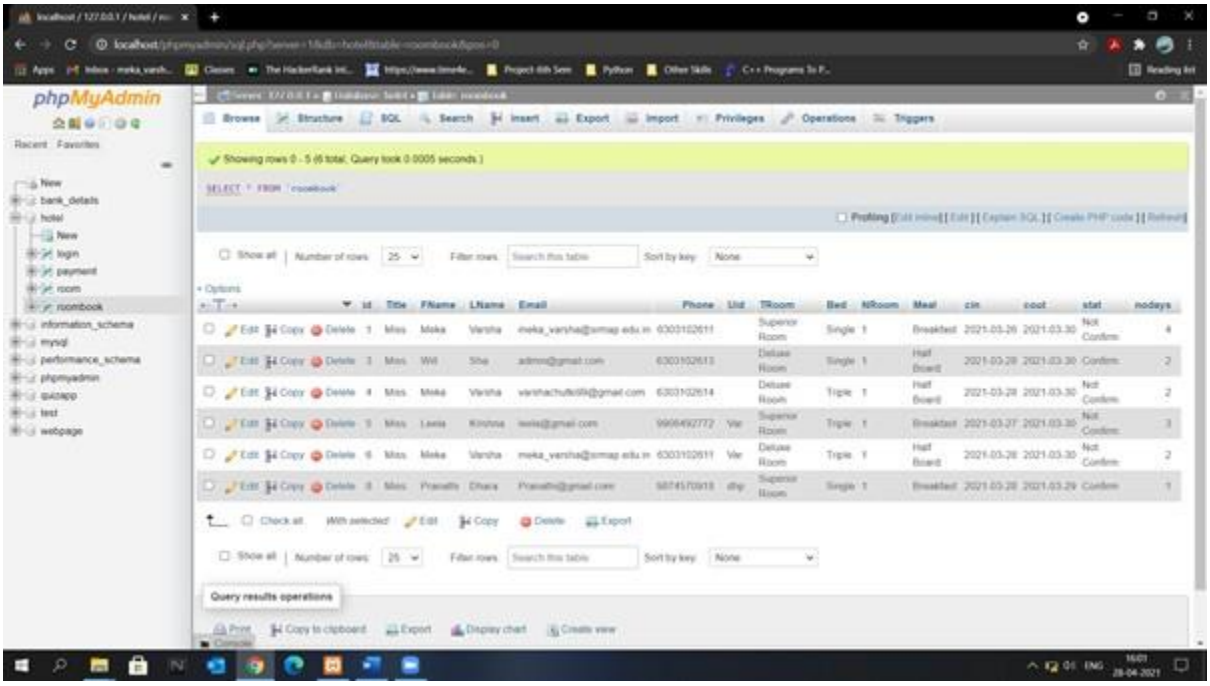
HTML, CSS, PHP.




phpMyAdmin
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Showing rows 0 - 2 (3 total, Query took 0.0003 seconds.)
SELECT * FROM `login`
Query results operations
Print
Copy to clipboard
Export
Display chart
Create view


phpMyAdmin
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.
Showing rows 0 - 3 (4 total, Query took 0.0004 seconds.)
SELECT * FROM `payment`
Query results operations
Print
Copy to clipboard
Export
Display chart
Create view


phpMyAdmin
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Showing rows 0 - 13 (14 total, Query took 0.0004 seconds.)
SELECT * FROM `room`
id
type
bedding
place
cusid


phpMyAdmin
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers
Showing rows 0 - 5 (6 total, Query took 0.0005 seconds.)
SELECT * FROM `roombook`
id
Title
FName
LName
Email
Phone
Uid
TRoom
Bed
NRoom
Meal
cin
cout
stat
nodays
Query results operations

c) Hardware Interfaces:

The user interface for the system shall be compatible with any type of web browser such as Mozilla Firefox, Google Chrome, and Internet Explorer. This system requires 2GB space. System should sync frequently to the backup server in order to avoid data loss during failure, so it can be recovered.

d) Communication Interfaces:

The System shall be using HTTP/HTTPS for communication over Internet and for intranet communications, it shall use TCP/IP protocol. To achieve functionality it requires having a stable internet connection. Mostly a broadband connection with the client's computer will provide the efficient service.

Non-Functional Requirements

a) Performance Requirements:

Performance requirements define acceptable response times for system functionality. Data in the database should be updated within 2 seconds.Query results must return results within 5 seconds. Load time of UI Should not take more than 2 seconds.

b) Safety Requirements:

Database should be backed up every hour. Under failure, system should be able to come back at normal operation under an hour

c) Security Requirements:

The system has an username and password for Admin. All external communications between the data's server and client must be stored in the database. All data must be protected or protectively marked.

d) Software quality Attributes:

Correctness: This system should satisfy the normal regular Hotel Management operations precisely to fulfill the end user objectives

Efficiency: Enough resources to be implemented to achieve the particular task efficiently without any hassle.

Flexibility: System should be flexible enough to provide space to add new features and to handle them conveniently

Integrity: System should focus on securing the customer information and avoid data losses as much as possible

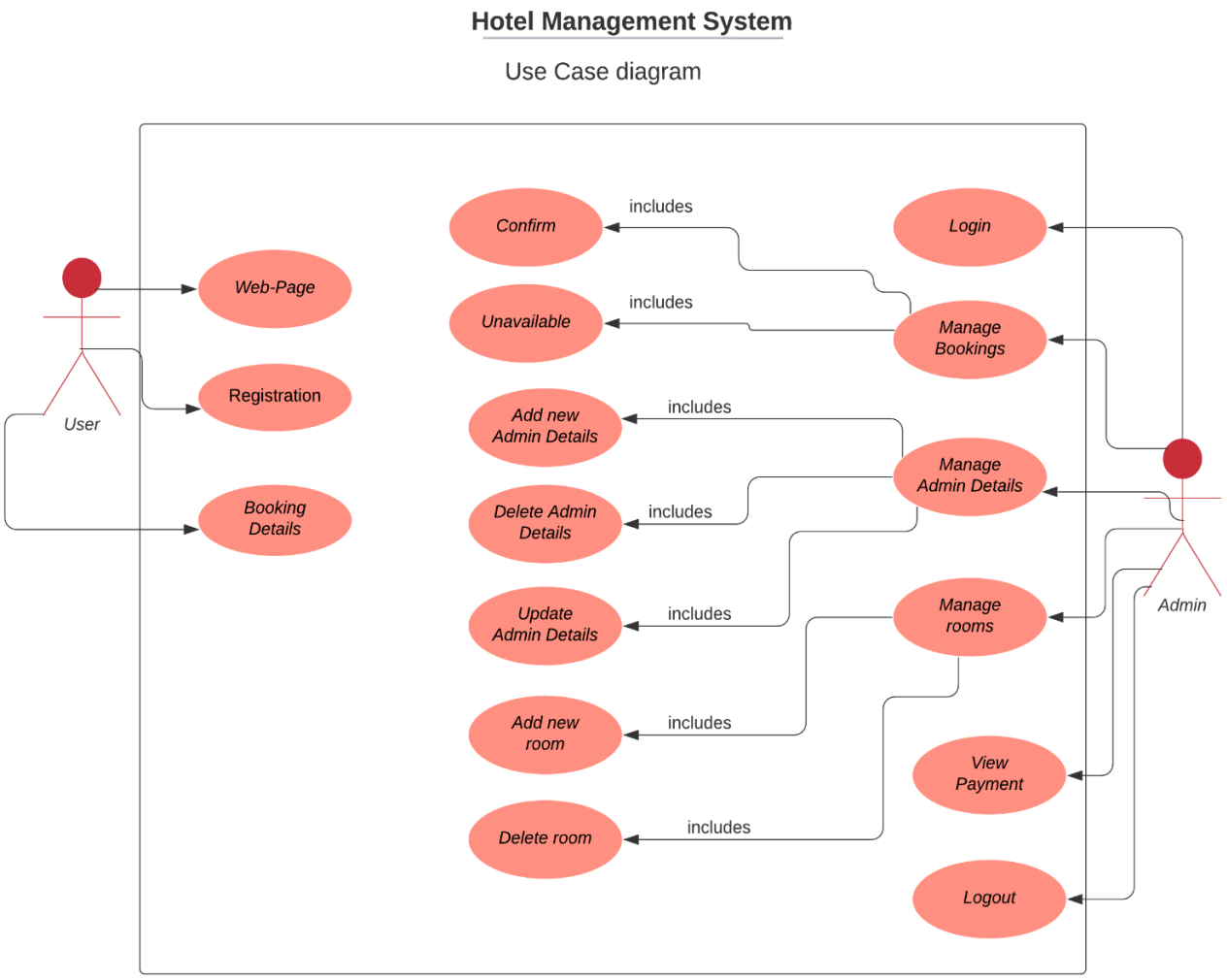
Portability: The system should run in any Microsoft windows environment.

Usability: The system should provide a user manual to every level of users.

Testability: The system should be able to be tested to confirm the performance and clients specifications.

Maintainability: The system should be maintainable.

Use-Case Diagram



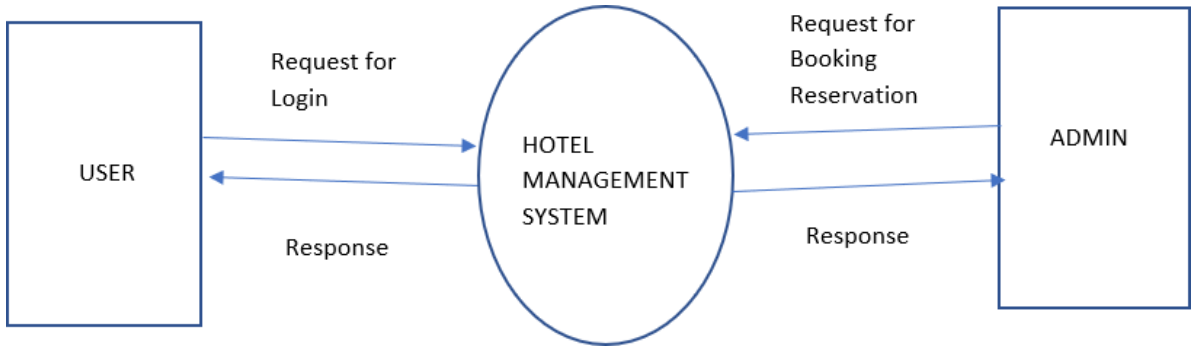
Data Flow Diagram:

Physical DFD:

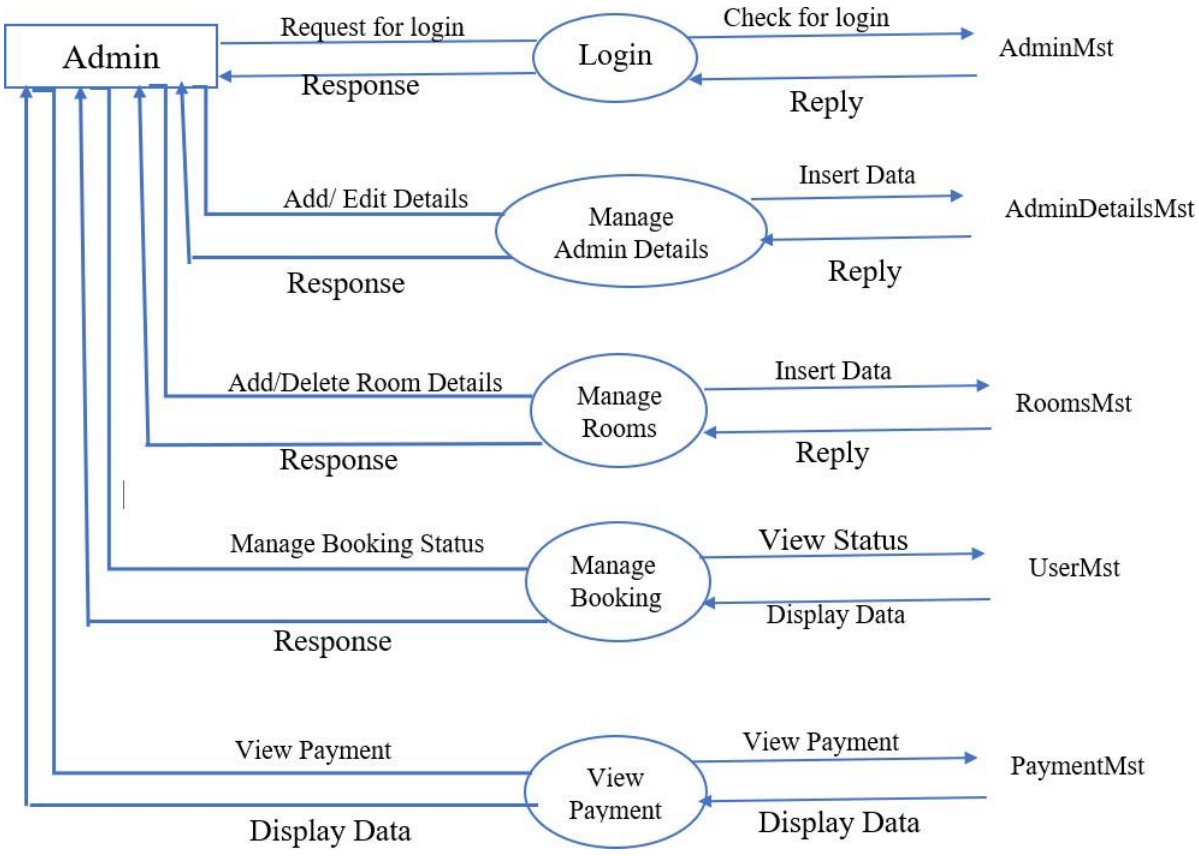
The user goes through this Hotel Management System, he/she can go through the details, services and view the gallery of the Hotel Management System. Based on their room requirements and prices, the user can book the room by filing the reservation details which contains personal and reservation information. After completion of the booking the user can view their booking status by entering their username. Admin can go through the user's booking and confirm the reservation of the user based on whether the room is available or not. Admin can print the receipt of the customer stay and collect the payment from the customers after their stay. Payment details depend upon the price of the room booked. Admin can even add or delete the new or existing admin, also can change the username and password accordingly. Monitor, Printer, Mouse, Keyboard are the equipment required.

Logical DFD

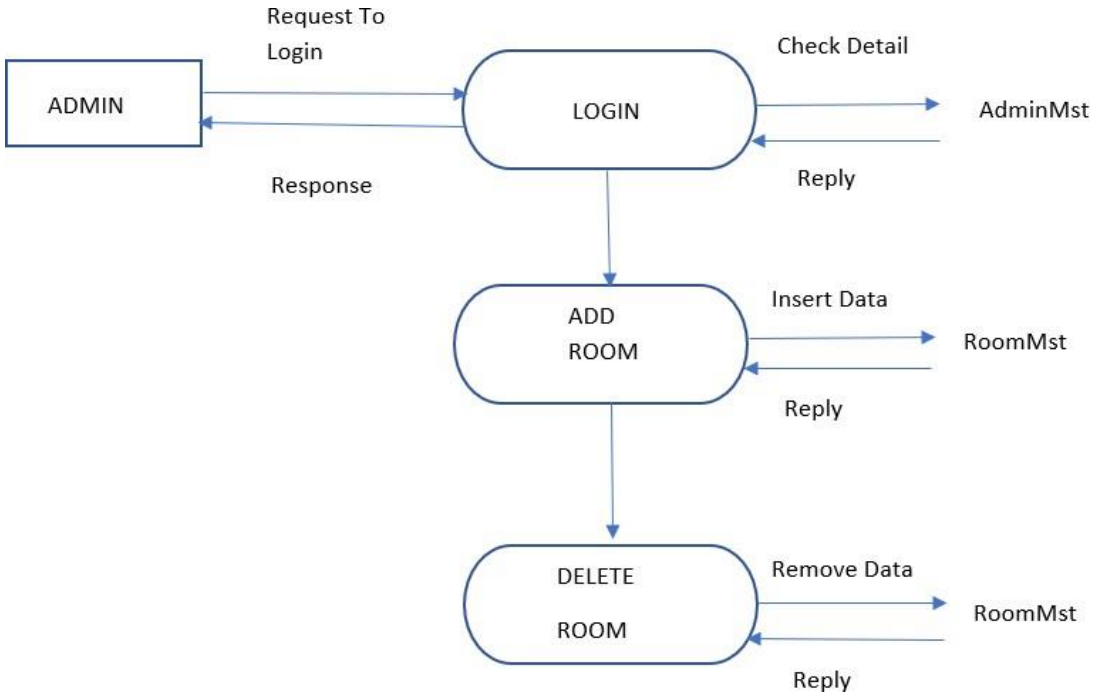
Context DFD:



Level-0 DFD:


Admin
Request for login
Response
Login
Check for login
Reply
AdminMst
Add/ Edit Details
Response
Manage
Admin Details
Insert Data
Reply
AdminDetailsMst
Add/Delete Room Details
Response
Manage
Rooms
Insert Data
Reply
RoomsMst
Manage Booking Status
Response
Manage
Booking
View Status
Display Data
UserMst
View Payment
Display Data
View
Payment
View Payment
Display Data
PaymentMst

Level 1 DFD:



Data Dictionary

Table Name: login

Description: To store the admin login details

Sr No.	Fields (Name)	Data Type	Size	Constraint	Description
1	id	int	10	Primary key	Admin Id
2	usname	varchar	30	Not Null	Admin Username
3	pass	varchar	30	Not Null	Admin Password

Table Name: room

Description: To store the room and bedding details of hotel

Sr No.	Fields (Name)	Data Type	Size	Constraint	Description
1	id	int	10	Primary key	Room Id of Hotel
2	type	varchar	15	Not Null	Type of room
3	bedding	varchar	10	Not Null	Type of Bed
4	place	varchar	10	Not Null	Availability of room
5	cusid	int	11	Not Null	Booking Id

Table Name: roombook

Description: To store the booking details of guests

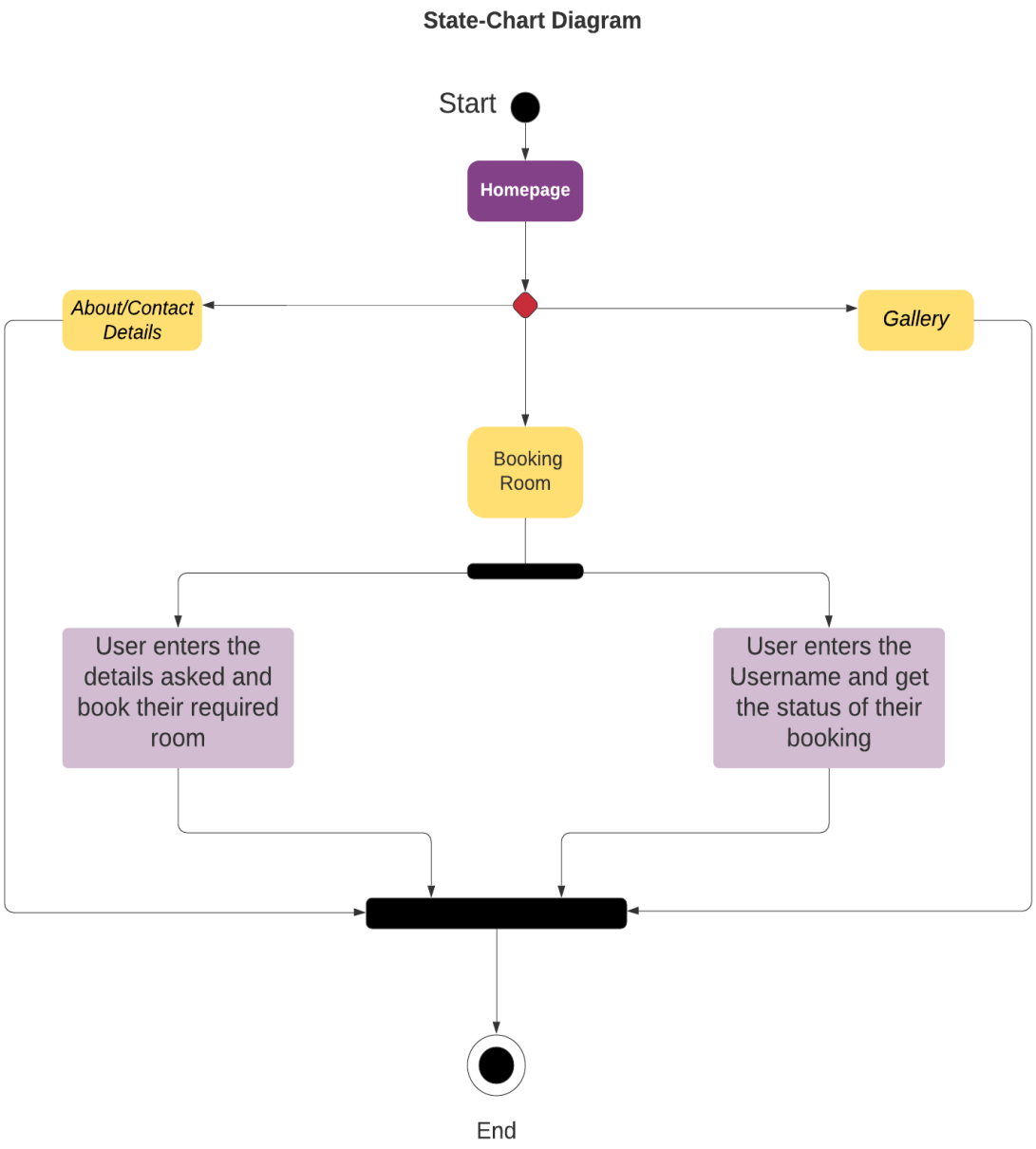
Sr No.	Fields (Name)	Data Type	Size	Constraint	Description
1	id	int	11	Primary key	Booking Id
2	Title	varchar	5	Not Null	Title of user
3	FName	text		Not Null	First Name of user
4	LName	text		Not Null	Surname of user
5	Email	varchar	50	Not Null	Email Id of user
6	Phone	bigint	20	Not Null	Contact number of user
7	Uid	varchar	20	Not Null	Username of user
8	TRoom	varchar	20	Not Null	Type of Room
9	Bed	varchar	10	Not Null	Type of Bed
10	NRoom	varchar	2	Not Null	No of rooms booked by the user
11	Meal	varchar	15	Not Null	Meal Type
12	cin	date		Not Null	Check in date of user
13	cout	date		Not Null	Check out date of user
14	stat	varchar	15	Not Null	Status of the Booking
15	noofdays	int	11	Not Null	No of days of stay of user

Table Name: payment

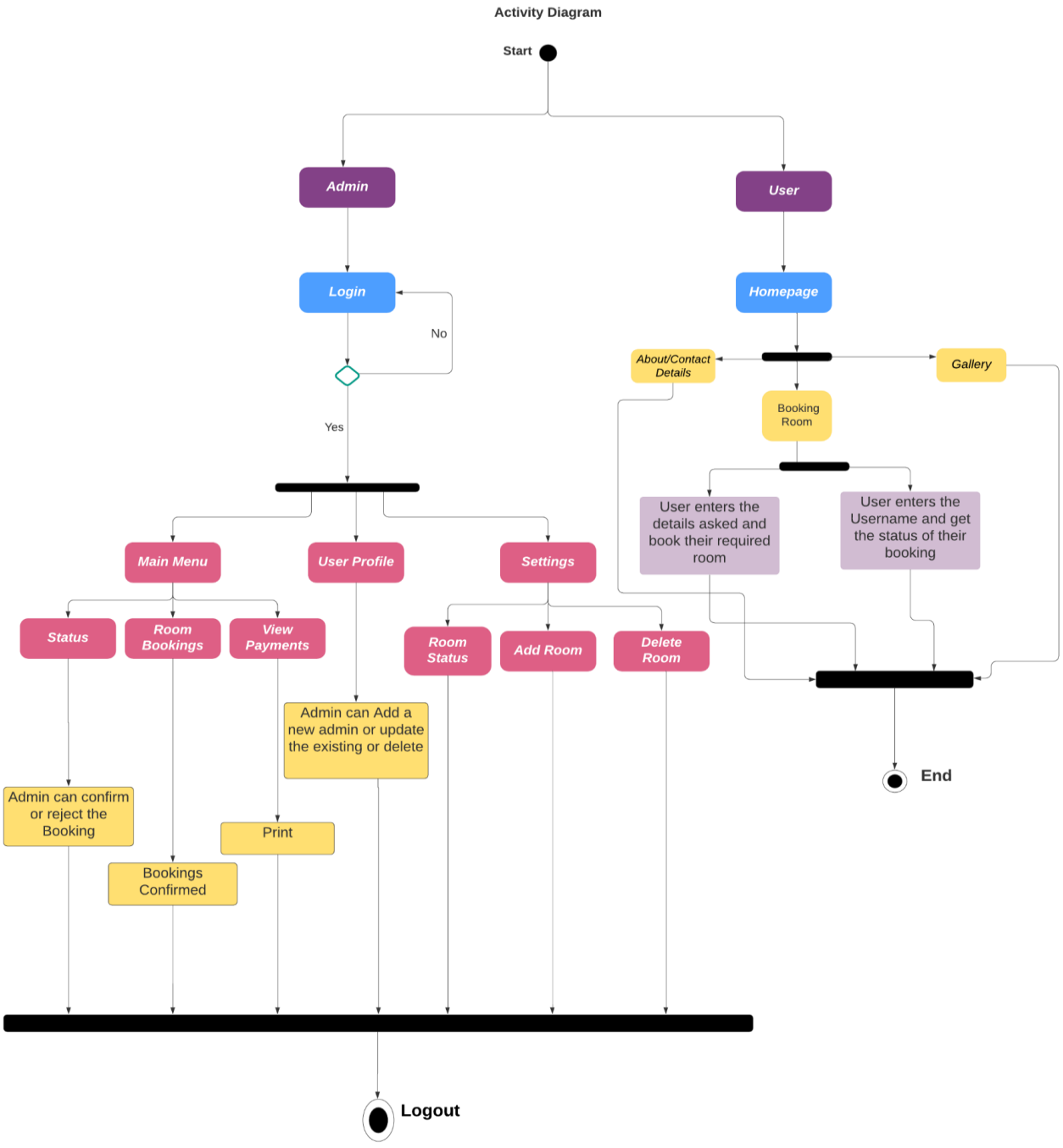
Description: To store the complete details of the user's stay

Sr No.	Fields (Name)	Data Type	Size	Constraint	Description
1	id	int	11	Primary key	Booking Id of Hotel
2	title	varchar	5	Not Null	Title of user
3	fname	varchar	30	Not Null	First Name of user
4	lname	varchar	30	Not Null	Surname of user
5	troom	varchar	30	Not Null	Type of Room
6	tbed	varchar	30	Not Null	Type of Bed
7	nroom	int	11	Not Null	No of rooms booked by the user
8	cin	date		Not Null	Check in date of user
9	cout	date		Not Null	Check out date of user
10	ttot	double	(8,2)	Not Null	Room Cost
11	btot	double	(8,2)	Not Null	Bed Cost per head
12	mepr	double	(8,2)	Not Null	Meal Price per plate
13	meal	varchar	30	Not Null	Meal Type
14	fintot	double	(8,2)	Not Null	Grand Total
15	noofdays	int	11	Not Null	No of days of stay of user

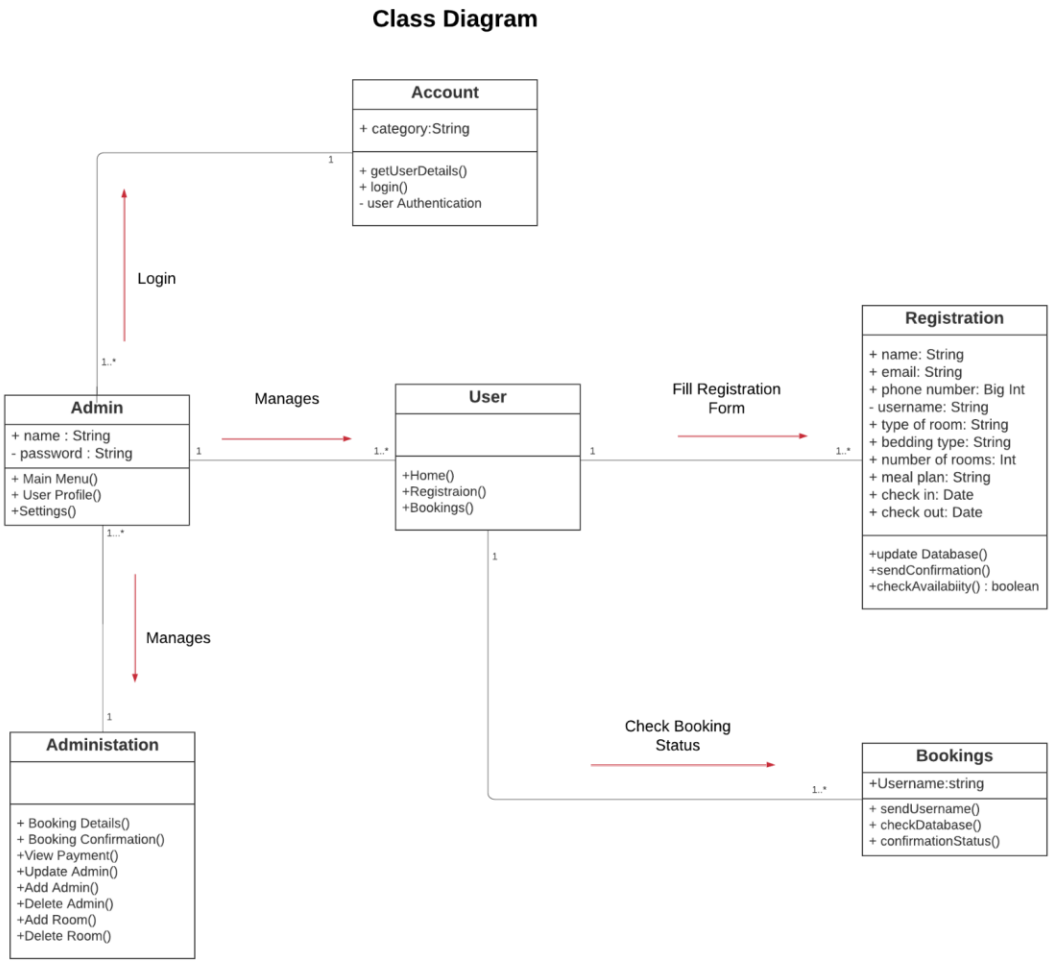
State-Chart Diagram



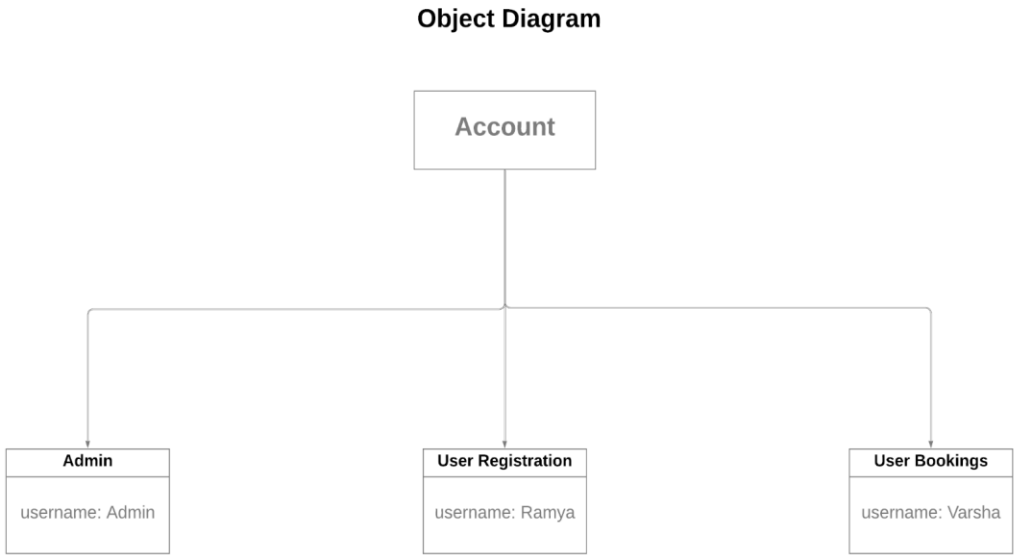
Activity Diagram



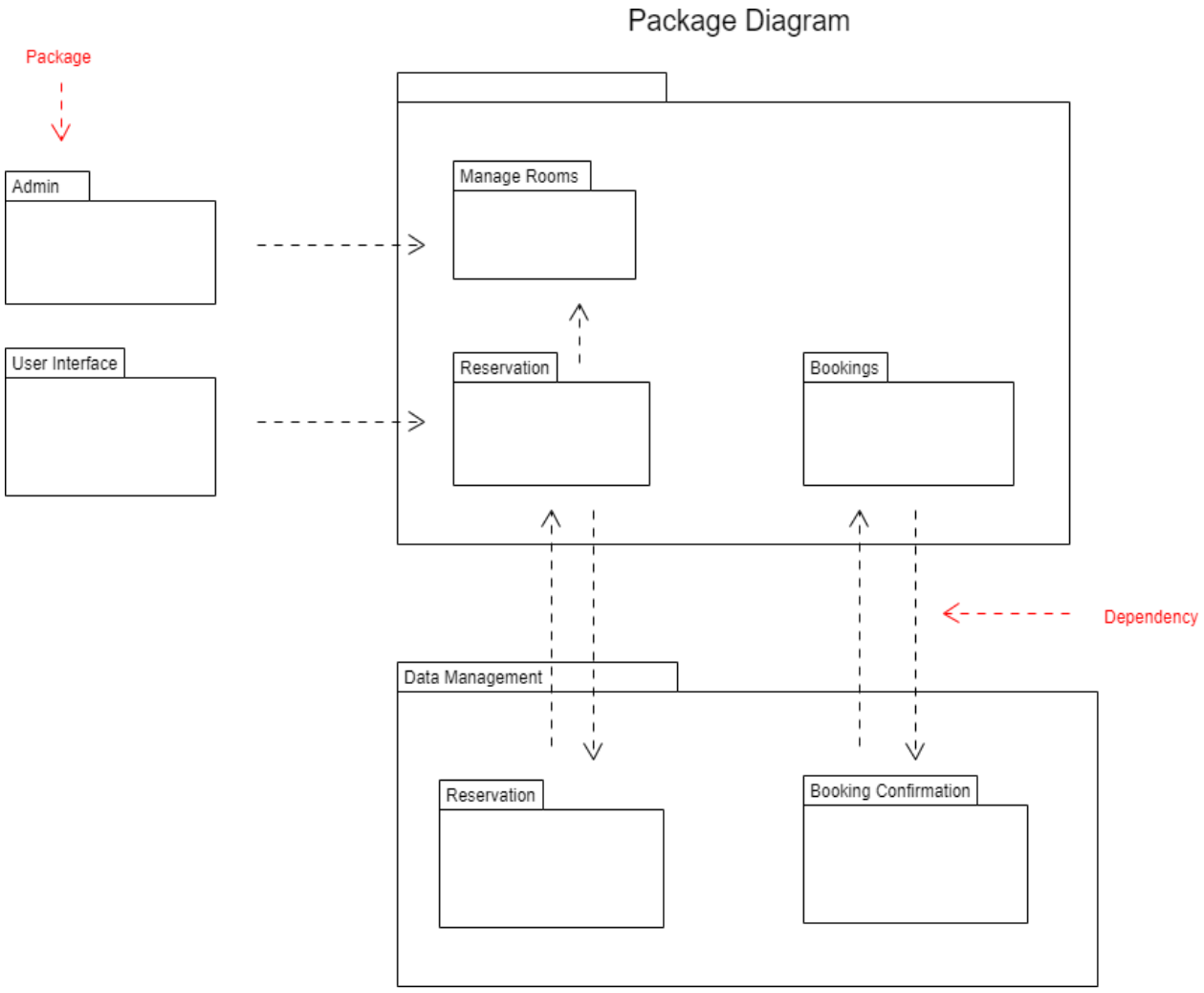
Class Diagram



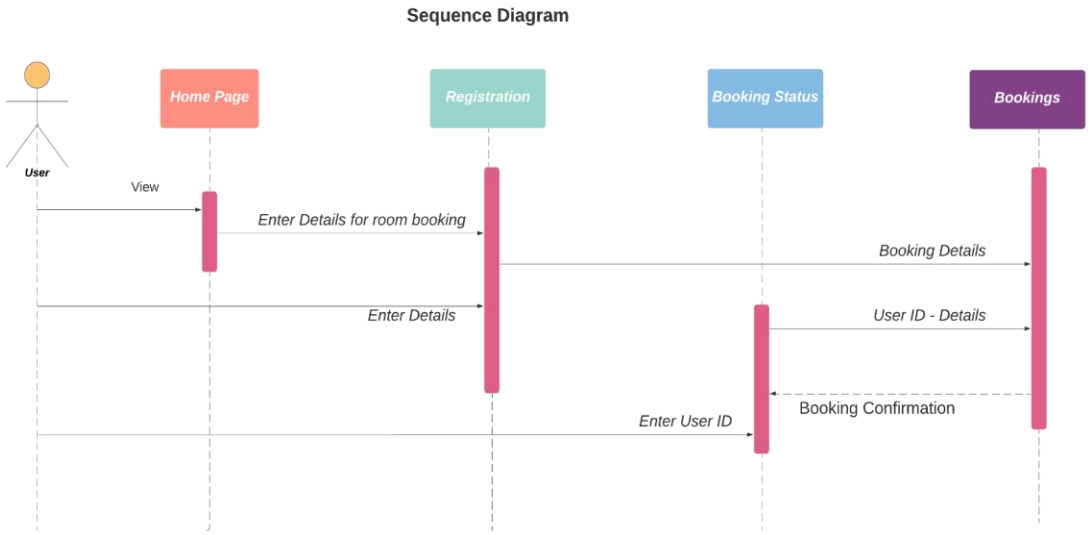
Object Diagram



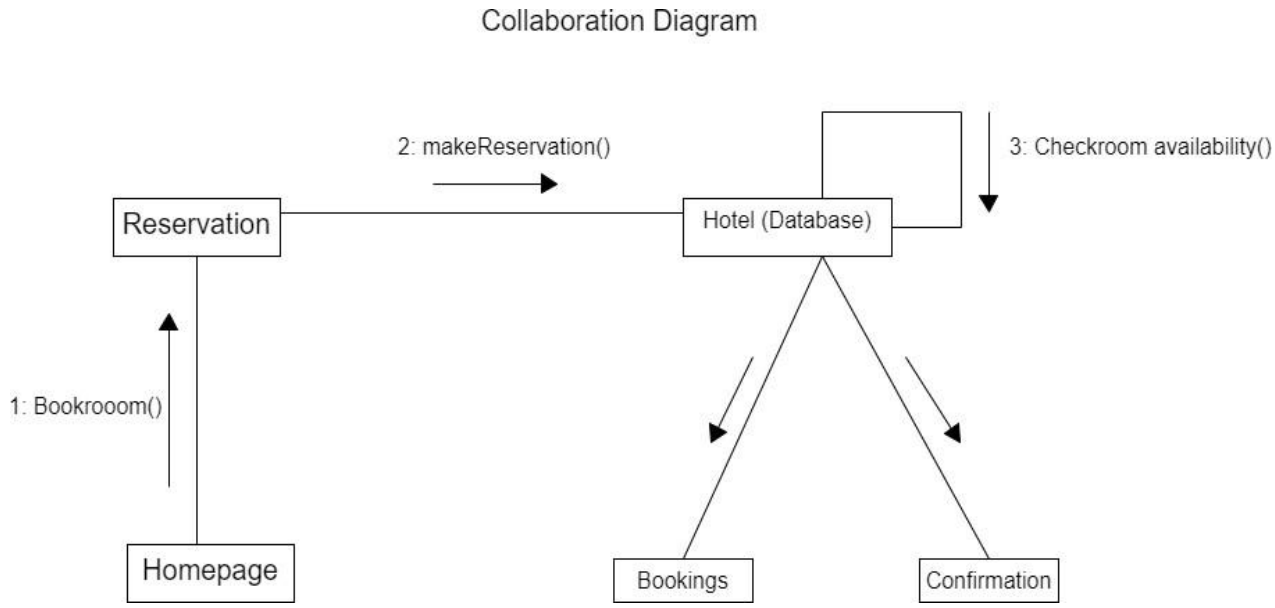
Package Diagram



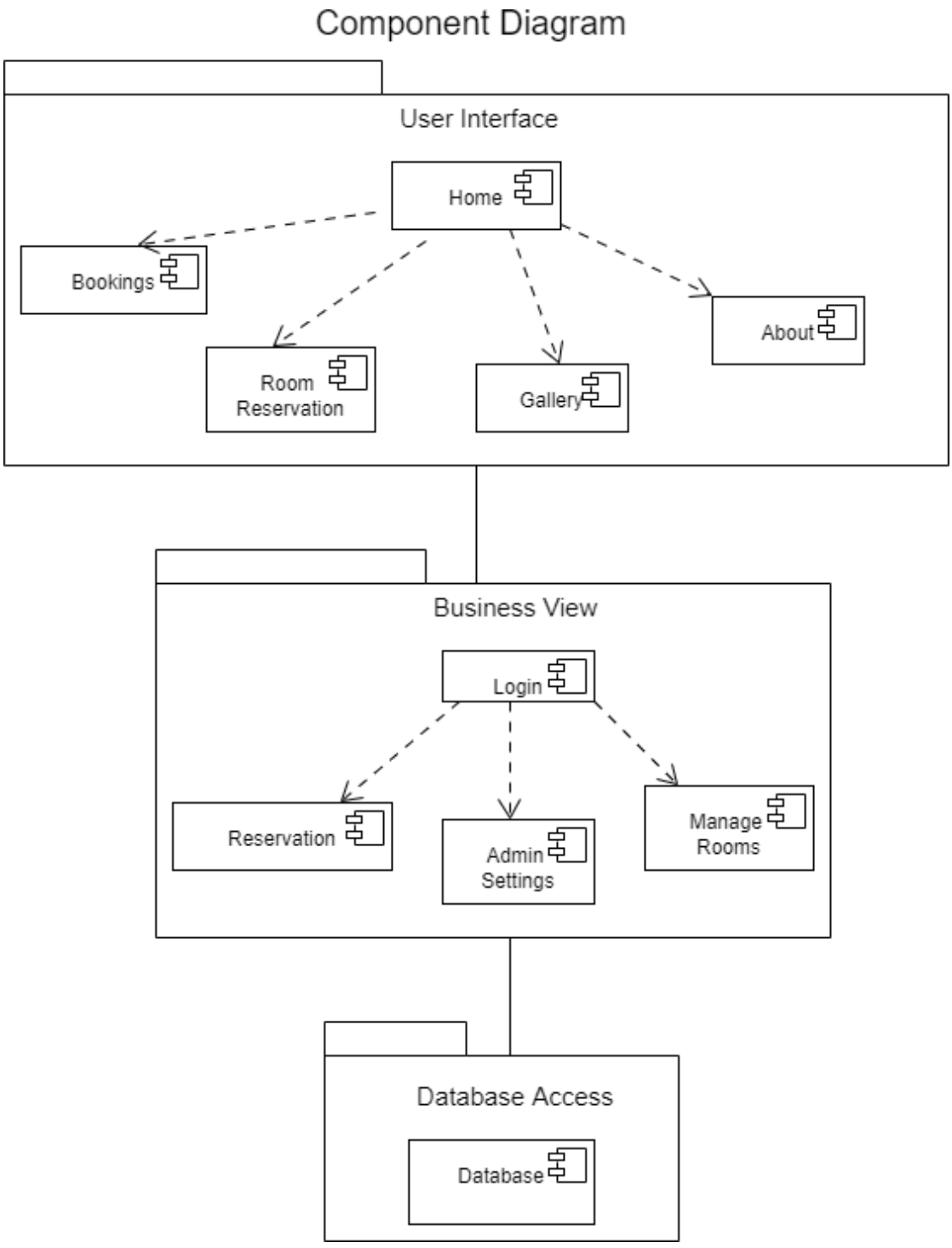
Sequence Diagram



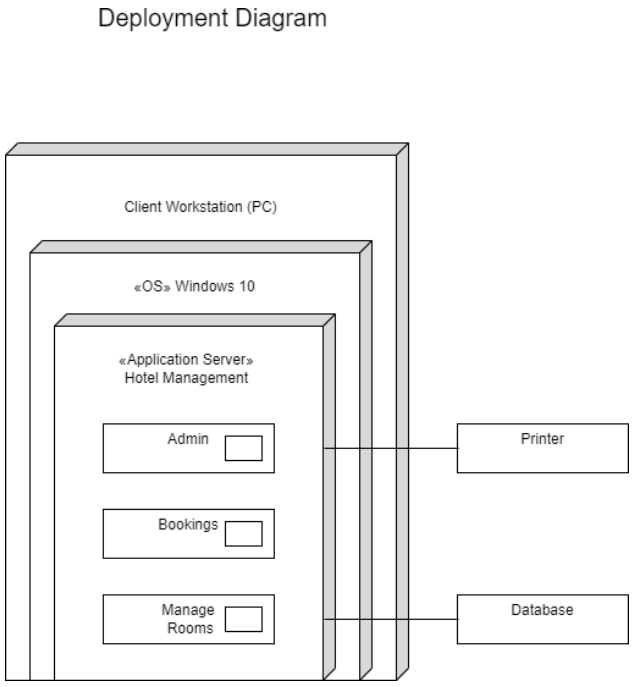
Collaboration Diagram



Component Diagram



Deployment Diagram



Testing

Unit Testing:

Test case #	Test case Description	Test Data	Expected Result	Actual Result	Pass / Fail
1	Check response when valid username and password is entered	Username: Admin Password: Admin123	Login should be successful	Login was successful	Pass
2	Check the random code for human verification	71851282	Your booking should not be successful	Booking is not successful.	Pass
3	Check the bookings when a valid username is entered	Ramya	Room bookings should be displayed	Bookings displayed successfully.	Pass
4	Check the reservations when the user is booking twice using same username	Var	Room should be booked successfully	Booking is successful.	Pass
5	Check all the bookings of the same username	Var	All the room bookings of the specified user should be displayed	All the room bookings displayed successfully.	Pass

Integration Testing:

Test case #	Test case Description	Test Data	Expected Result	Actual Result	Pass / Fail
1	Check booking confirmation when admin confirms the booking	Username: Ramya	Booking status should be changed from Not Confirmed to Confirmed	Booking Status was displayed Confirmed	Pass