

**Department of Technical Education**  
**Capstone project**  
**Format-5**  
**Capstone Project Execution Document**

**Capstone project Name: Hotel Management System**

Capstone project Members:

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**Main Deliverables -**

**1) Design:**

➤ **Description of Components in the system**

- **Admin Login**

Here admin can login to the form using admin username and password. After logging in he can add the room, add room information, room type and room photos. After Adding the room admin can view the room booking list.

- **Manage Room**

Admin can also manage the rooms he can add the room, delete the room, add room information, add the room type and add the room photo. Admin can also check the booking of room.

- **View Room Booking**

After admin logged in to the form admin can easily see the room booking list. Admin can see the user details, there check in and check out date and user needs.

- **View Room**

User can view the room view room information, view room type, view room photo for booking of the room.

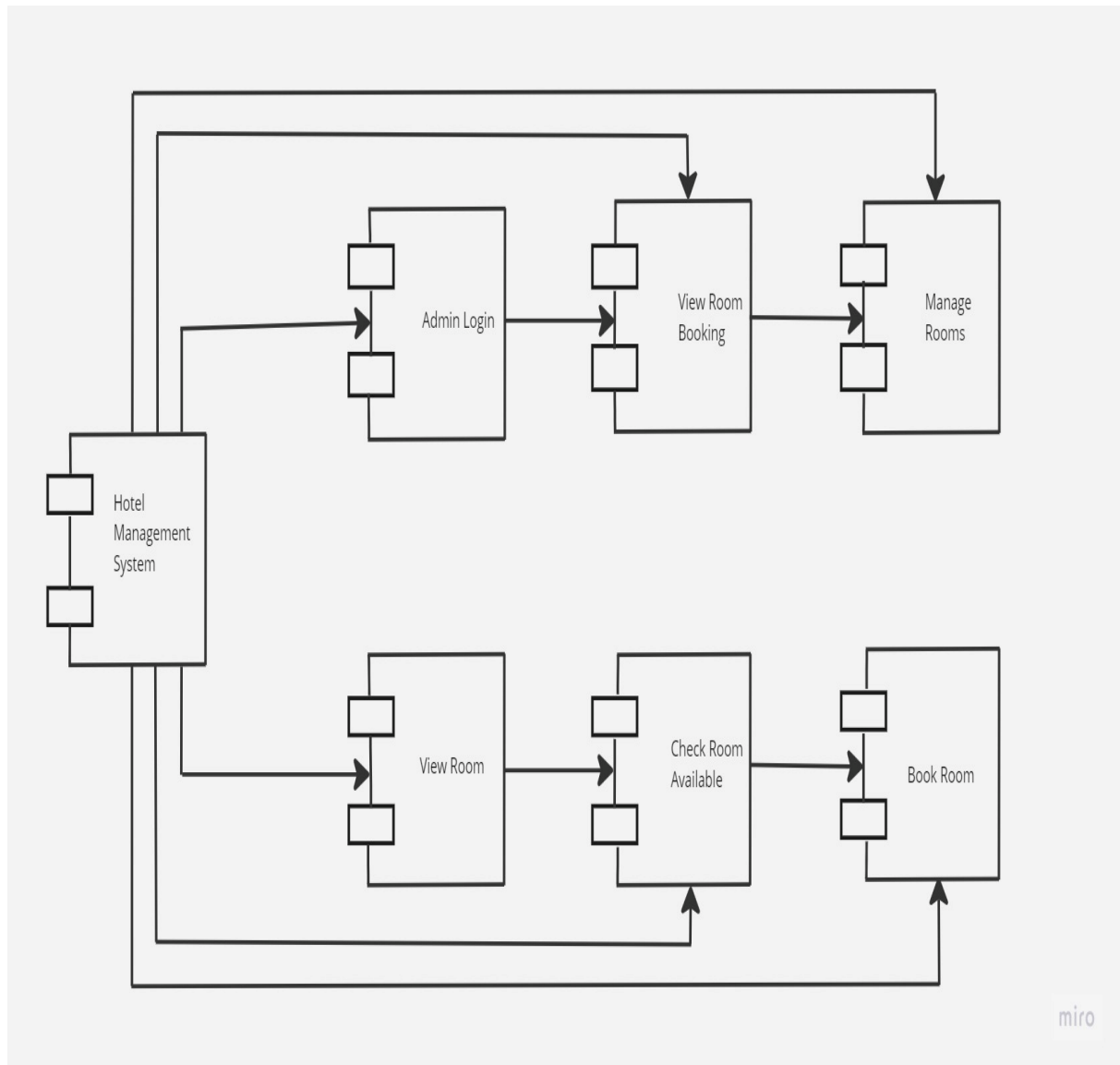
- **Check Room Available**

User can check the availabilities of room and see the information, room type, room photo for there booking purpose.

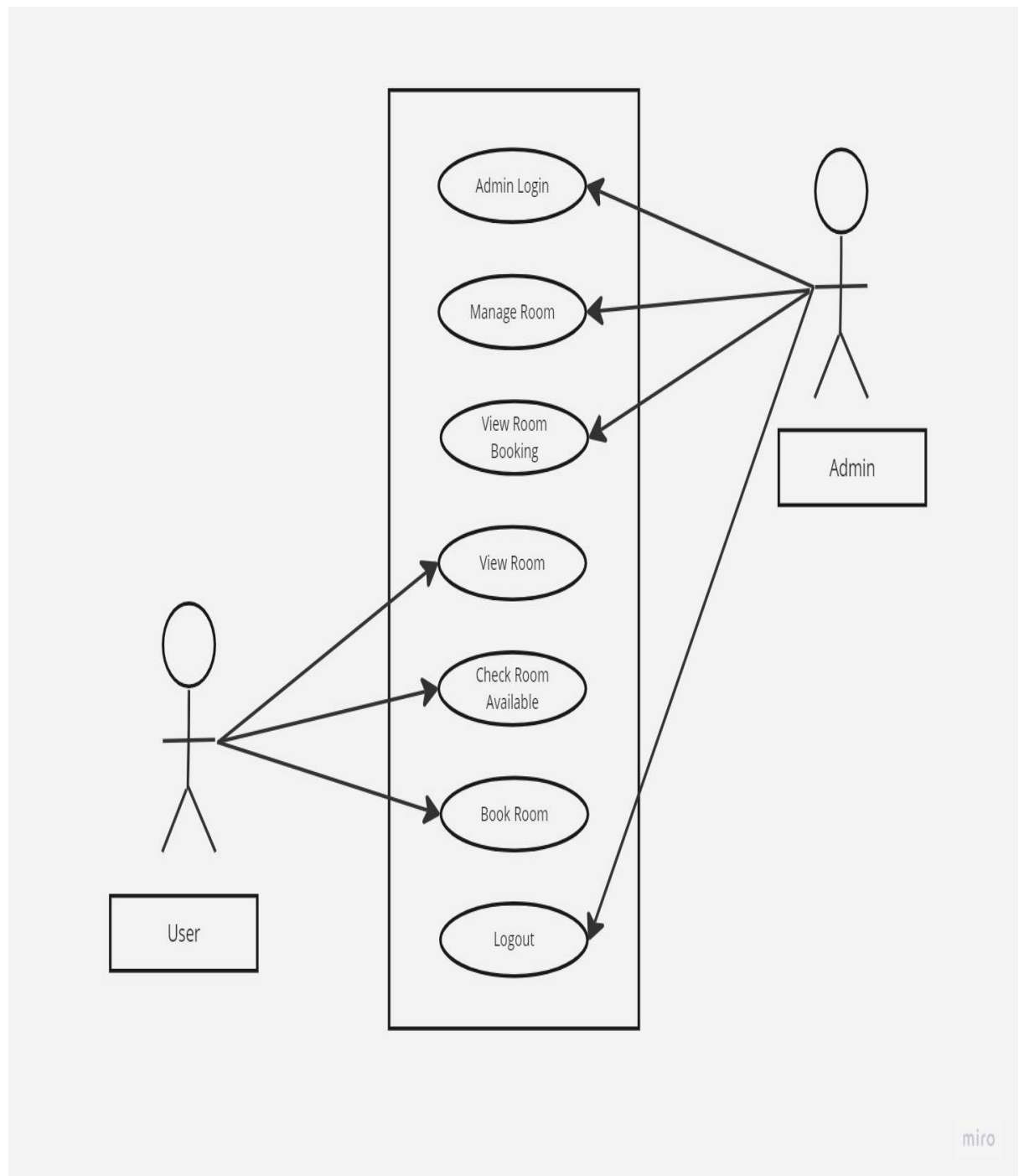
- **Book Room**

After seeing the room, there facilities, room type, there information user can successfully book the room without any issue.

➤ **Components Diagram:**



➤ **Use Case Diagram:**



## 2) Description of Technology Used:

### ➤ Details of Hardware devices

- **What is a Processor**

The processor is a chip or a logical circuit that responds and processes the basic instructions to drive a particular computer. The main functions of the processor are fetching, decoding, executing, and write back the operations of an instruction. The Core i3 processor is available in multiple speeds, ranging from 1.30 GHz up to 3.50 GHz, and features either 3 MB or 4 MB of cache. Core i3 processors are found as dual-core, having two cores.

- **Types of processors: -**

- ❖ **Microprocessor: -**

- The general-purpose processors are represented by the microprocessor in embedded systems. There are different varieties of microprocessors available in the market from different companies.

- ❖ **Microcontroller**

- The microcontroller is basically a computer that comes in various packages and sizes. The reading input and responding to output is the basic function of the microcontroller.

- **RAM**

RAM (Random Access Memory) is the hardware in a computing device where the operating system (OS), application programs and data in current use are kept so they can be quickly reached by the device's processor. RAM is the main memory in a computer.

- **Types of RAMS**

1. **SRAM** (Static Random Access Memory)

SRAM is used for cache memory. It can hold the data as long as the power availability is there.

2. **DRAM** (Dynamic Random Access Memory)

DRAM is used for the main memory, it has a different construction than SRAM, and it used one transistor and one capacitor which is needed to get recharged in milliseconds due to the presence of the capacitor.

- **Advantages: -**

1. RAM Faster than secondary storage.
2. RAM can capably read and write any type of data.
3. RAM consumes less power compared to hard disk, CD, DVD, FLOPPY disk.
4. No part of RAM moves when RAM executes an instruction.
5. RAM memory increases your computer speed.
6. Central Processing Unit (CPU) reads any data faster because of RAM.

### ➤ **Details of software products**

- **PHP designer**

PHPDesigner 8 is a fast and powerful PHP IDE and PHP editor with fill-blown HTML5, CSS3 and JavaScript built-in editors. Highly customizable IDE with intelligent syntax highlighting, debug support, syntax analysing support for object-oriented coding.

- **VS Code**

Visual Studio Code, also commonly referred to as VS Code, is a source-code editor made by Microsoft with the electron Framework, for windows, Linux and macOS. Features include support for debugging, syntax highlighting.

- **XAMPP Server**

XAMPP is a cross-platform and open source tool, which makes it an ideal choice of web developers. It is the acronym of X-cross platform, Apache, MySQL, PHP, and Perl.

- **Operating System**

An operating system is system software that manages computer hardware and software resources, and provides common service for computing programs.

- **Types of OS**

- Batch Operating system
- Time-sharing operating system
- Distributed operating system
- Network operating system
- Real-time operating system

- **Browser**

A browser is an application program that provides a way to look at and interact with all the information on the World Wide Web.

- **Types of browser**

- Internet explorer
- Mozilla Firefox
- Google chrome
- Safari
- Microsoft edge

### **MySQL: -**

MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by Oracle Company.

## ➤ **Programming language**

- **HTML**

The hypertext markup language or HTML is the standard markup language for documents designed to be displayed in a web browser. It is often assisted by technologies such as CSS and scripting languages such as JavaScript.

### **Advantages**

- It is easy to learn.
- Every browser supports HTML Language.
- HTML is light weighted and fast to load.
- HTML has many tags and attributes which can short your line of code.

- **CSS**

Cascading style sheet is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web.

### **Advantages**

- Helps in making creative web pages by making them simple to use.
- Improve the browsing speed.
- It can be used on various devices.
- Wider variety of design options.

- **JavaScript**

JavaScript is a scripting language that enables you to create dynamically updating content, control multimedia, animate images, and pretty much everything else.

### **Advantages**

- Fast speed
- Easy to learn
- Versatility
- Popularity

- **Bootstrap**

Bootstrap is a free and open source CSS framework directed at responsive, front end web development. It contains HTML, CSS and java script based design templates for forms, buttons, navigation, etc.

### **Advantages**

- Open source
- Easy to use
- Save lots of time
- Compatible with browser

- **PHP**

PHP hypertext preprocessor is a widely used open source general purpose scripting language that is especially suited for web development and can be embedded into HTML. PHP pages contains HTML with embedded code.

**Advantages**

- It's open-source and free from cost.
- It is platform-independent.
- It has less learning curve because it is simple and straightforward to use.
- It helps in managing code easily.

### 3) Fabrication:

#### ➤ Construction or Fabrication details

- **Admin Login**

We first gathered the prerequisites for admin login, then we analyzed the information we had. The admin login form is then created. The page is validated after it has been designed, and each field of the form needs to be filled out correctly. After that, we connected the database. After finishing all the processes, the testing is finished.

- **Manage Room**

In this admin is going to manage the room, add the room type, add the room photo, add the room information. For execution of this page, we have collected the requirements & analysed the requirements. Then we designed the page. After designing we have validated this page with entering some details. Then we performed the database connection. After this testing will take place.

- **View Room Booking**

In this admin can view the booked room list, he can view the user details. we first gathered the requirements, then analyzed them, and finally designed the form. Following the evaluation of the designed page, we link to the database, and finally all the steps are finished. The testing is over.

- **View Room**

In this user can view the room and view the room information and room type, photos etc. In this first we have collected the requirements then we analysed the requirements. After that we have designed the page. After that we validated form with each field with filling details. Then performed the database connection. After all this we tested the page comparing with each step of the page.

- **Check Room Available**

In this user can check the availabilities of the room. In this first we have collected the requirements then we analysed the requirements. After that we have designed the page. After that we validated form with each field with filling details. Then performed the database connection. After all this we tested the page comparing with each step of the page.

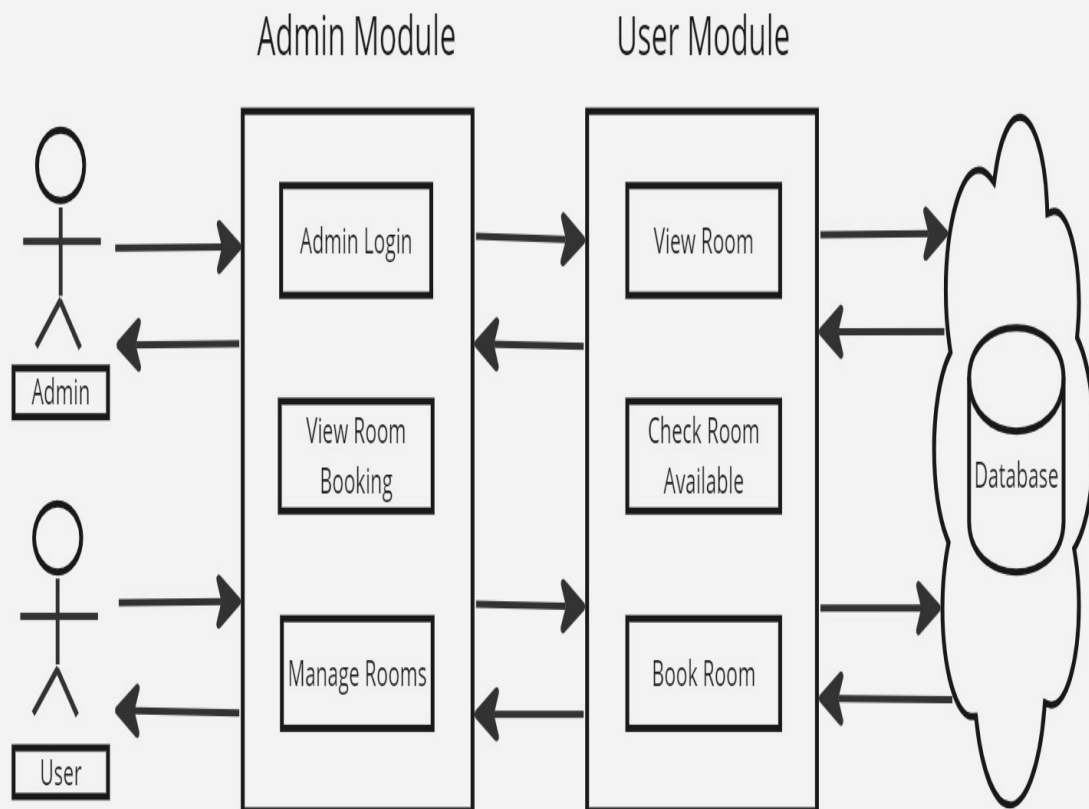
- **Book Room**

In this user can book the room after seeing the rooms and information about the room and hotel. In this first we have collected the requirements then we analysed the requirements. After that we have designed the page. After that we validated form with each field with filling details. Then performed the database connection. After all this we tested the page comparing with each step of the page.



➤ **System Architectural Dig.**

## System Architecture Diagram



#### **4)Testing and validation:**

##### **Testing Types:-**

- **Manual Testing**

Manual Testing is a kind of software testing in which a software tester develops and executes the test cases without using any automated testing tools. The main objective of manual testing is to detect the issues, bugs, and defects of a software application.

- **Unit Testing:-**

Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually scrutinized for proper operation. Software developers and sometimes QA staff complete unit tests during the development process. The main objective of unit testing is to isolate written code to test and determine if it works as intended. Unit testing is an important step in the development process. If done correctly, unit tests can detect early flaws in code which may be more difficult to find in later testing stages.

- **Integration Testing:-**

Integration testing (sometimes called integration and testing, abbreviated I&T) is the phase in software testing in which individual software modules are combined and tested as a group. Integration testing is conducted to evaluate the compliance of a system or component with specified functional requirements.

- **White Box Testing:-**

The technique of testing in which the tester is aware of the internal workings of the product, has access to its source code, and is conducted by making sure that all internal operations are performed according to the specification is known as white box testing.

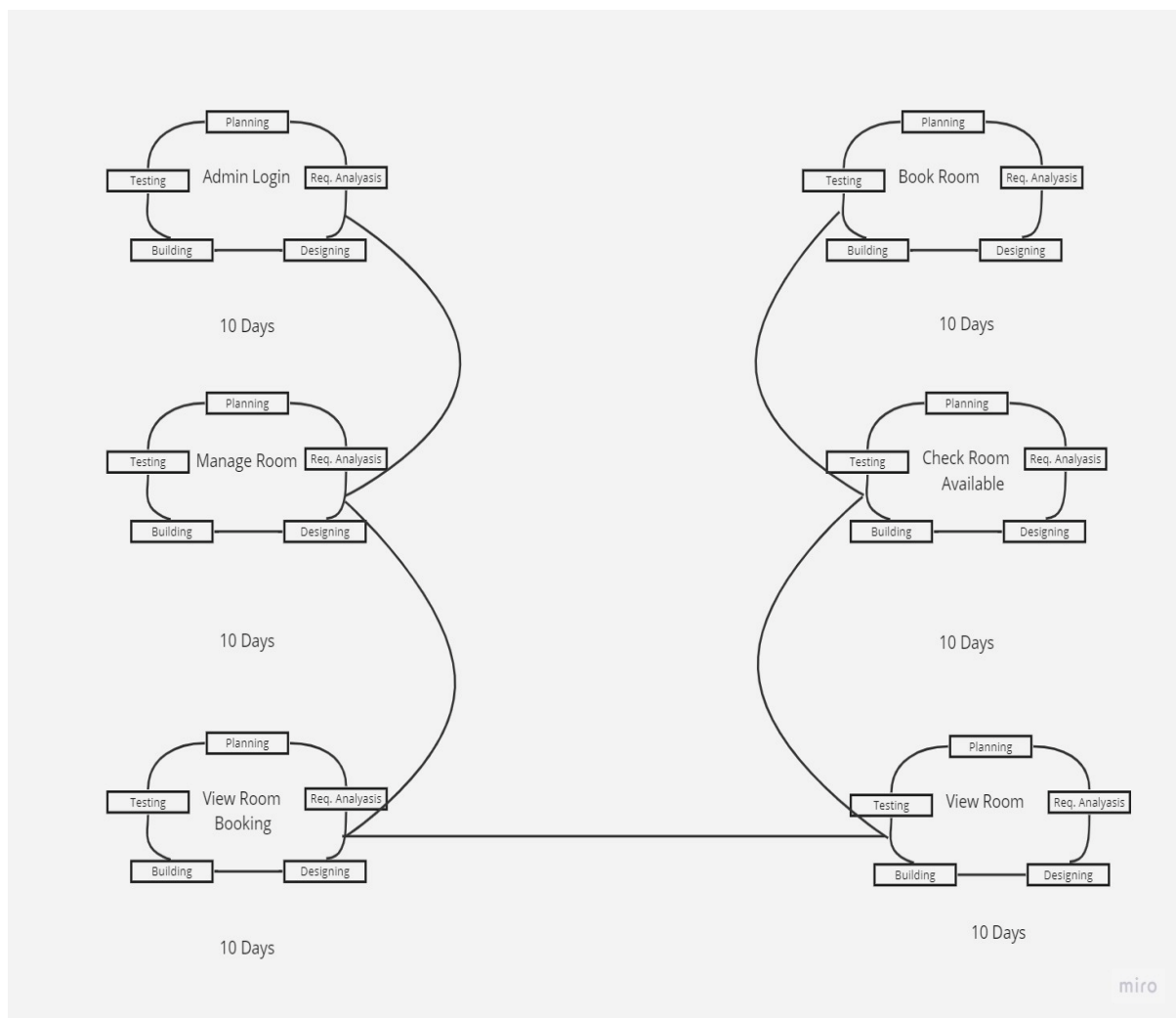
- **Black Box Testing:-**

The technique of testing in which the tester doesn't have access to the source code of the software and is conducted as the software interface without any concern with the internal logical structure of the software is known as Black Box Testing.

## ➤ Methodologies Used

Methodologies Used Agile methodology is a process for managing a project that involves constant collaboration and working in iterations. Agile project management works off the basis that a project can be continuously improved upon throughout its life cycle, with changes being made quickly and responsively. Agile is one of the most popular approach to project Management due to it's flexible, adaptability to change, and high level of customer input.

- Phases of Agile model
  - ❖ Requirement Gathering
  - ❖ Design the requirements
  - ❖ Construction or Iterations
  - ❖ Testing and Quality assurance
  - ❖ Deployment
  - ❖ Feedback



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- It has less learning curve because it is simple and straightforward to use.
- It helps in managing code easily.

### ➤ **Analysis**

As per the my market survey there is no such type of system are available. In some hotel online room booking facilities are not available. And in some hotel online room booking facilities are available. So for the user we are going to develop this project by this user can book the room by call and visit the room. By this user can save the time.

We are going to develop the hotel management system. The purpose of this project "Hotel Management System" involves maintaining various operations like user can check the room availability and also book the room online and hotel admin can login to this system and view the room booking list and cancellation of the room, cash billing and room service. We are going to develop this project using this modules like user module in this view room, check room availability and book room. In admin module admin login, view room booking, manage rooms etc. To implement this project we will use full stack languages like HTML, CSS, JavaScript, Bootstrap, PHP, MySQL database etc.

### **Validation:-**

#### **1. Admin Login:-**

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC01	Check Admin Login with Valid Data	Enter Username And Password	Username = admin Password = admin	Admin Login Successfully	As Expected	Pass

## 2. Manage Room :-

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC02	Check Room title and room charge and room categories	Enter Room title, Enter room charge, Enter Room categories	Room Title=Luxury Room Charge=4000 Room Categories=A/C	Added record successfully	As Expected	pass

## 3. View Room Booking:-

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC03	Check Room Booking Status with valid data	Check Status	Confirm or Not Confirm	Confirm successfully	As Expected	pass

## 4. Book Room:-

Test Case Id	Test Description	Test Steps	Test Data	Expected Result	Actual Result	Status
TC06	Check Room Booking Status with valid data	Enter Name, Enter phone number, Enter Check-In Check-Out Date	Name=Aishwarya, phone number=7411622108, Check-In date= 10-06-2023, Check-Out date= 12-06-2023	Booked Room successfully	As Expected	pass

## ➤ **Finding**

### ➤ **Admin login**

- Empty Username: - If admin doesn't provide any username in username field, we will receive a pop-up message as please enter username, and we expected the same result, hence the test is passed.
- Empty Password: - If admin doesn't provide any password in password field, we will receive a pop-up message as please enter password, and we expected the same result, hence the test is passed.

### ➤ **Manage Room**

- Empty Room Title:- If admin doesn't provide room title in room title field, we will receive a pop-up message as please enter room title, and we expected the same result, hence the test is passed.
- Empty Room Charge:- If admin doesn't provide room charge in room charge field, we will receive a pop-up message as please enter room charge, and we expected the same result, hence the test is passed.
- Empty Room categories:- If admin doesn't provide room Categories in room Categories field, we will receive a pop-up message as please enter room Categories, and we expected the same result, hence the test is passed.

### ➤ **View Room Booking**

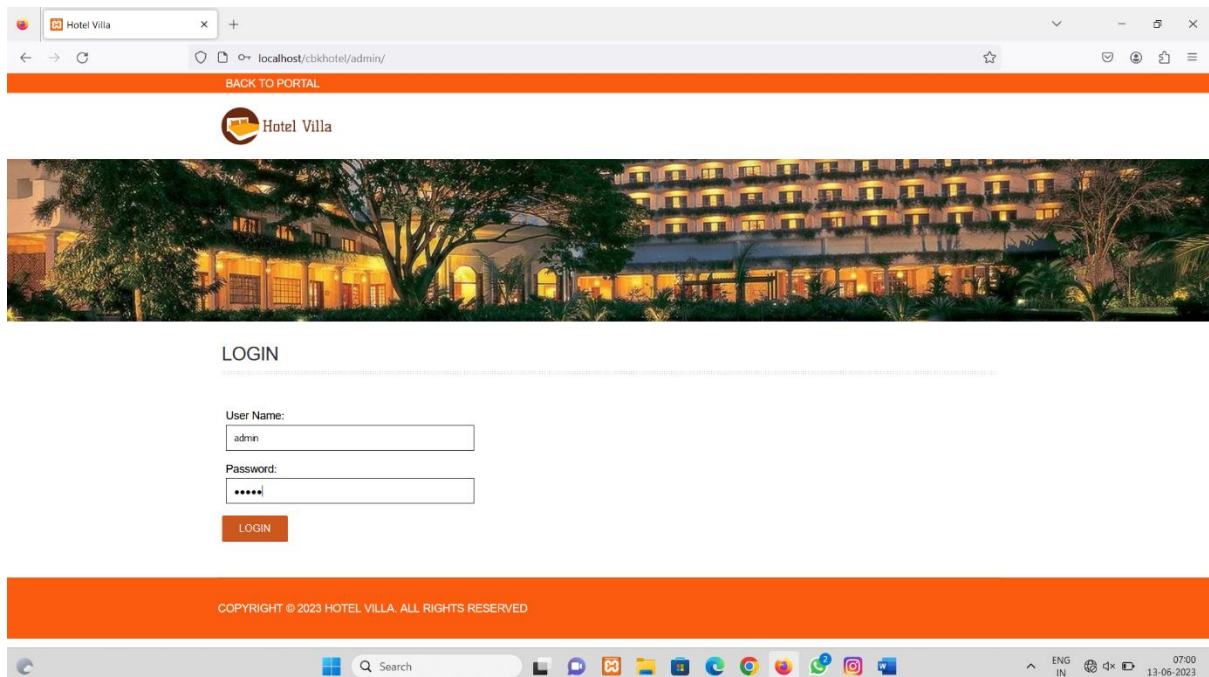
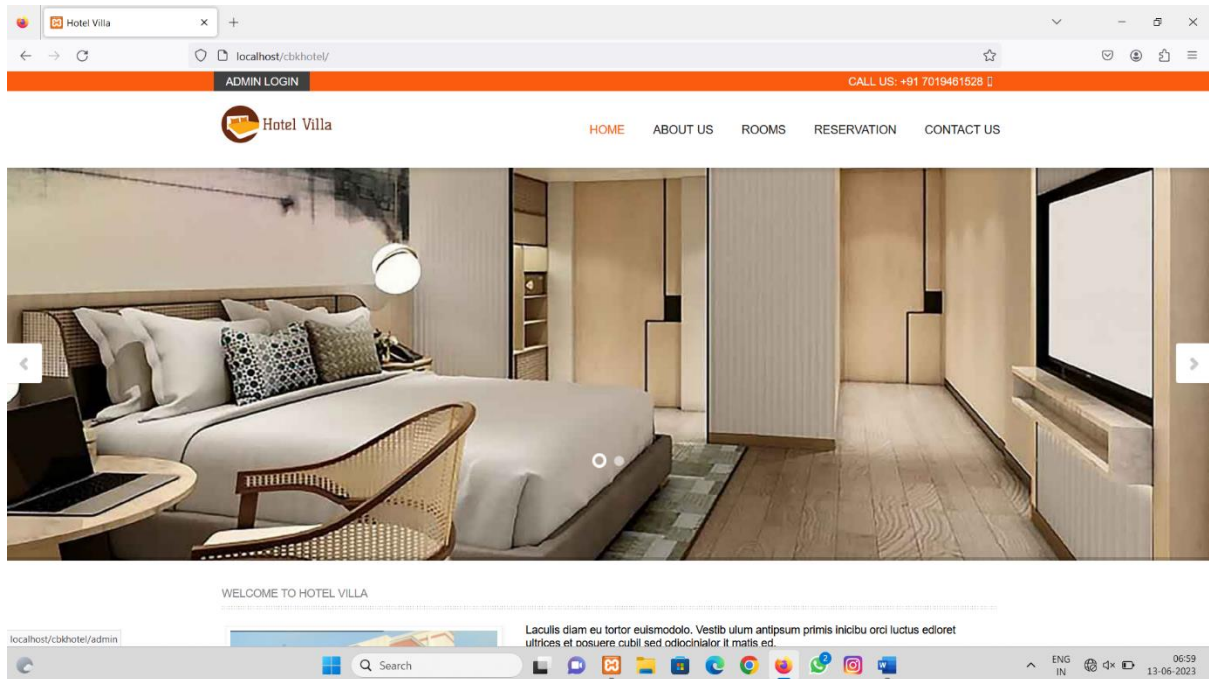
- Status Confirmation:- - Admin uses the status field to confirm and not confirm in View Room Booking list.
- Delete Booking:-Admin can delete the user

### ➤ **Book Room**

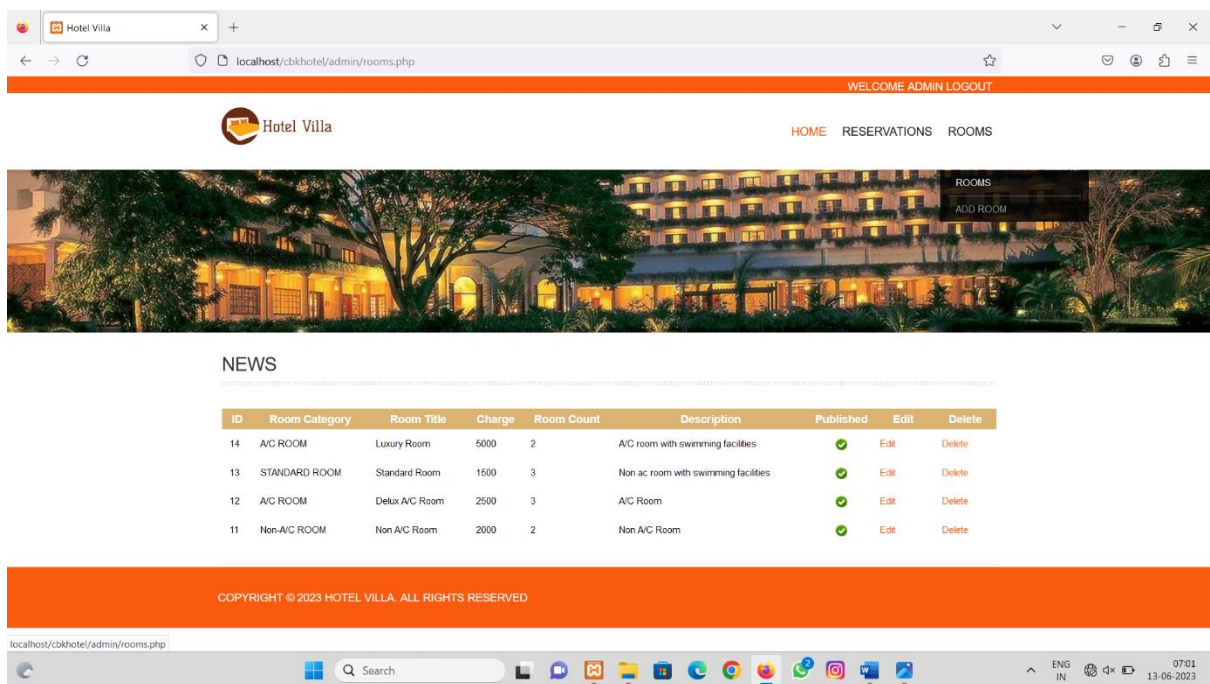
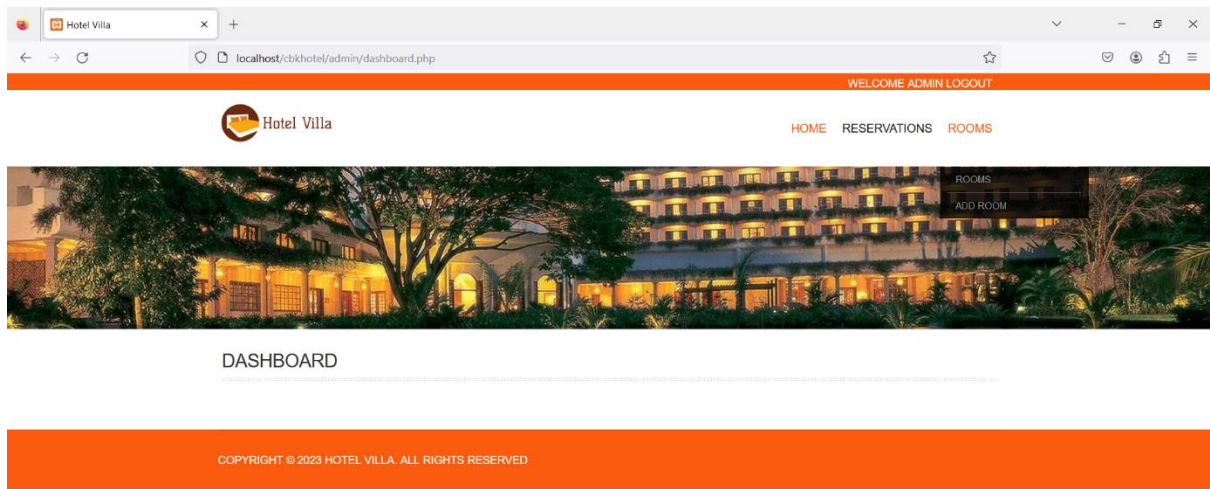
- Empty Name:- If User doesn't provide name in name field, we will receive a pop-up message as please enter name, and we expected the same result, hence the test is passed.
- Empty phone number:- If admin doesn't provide phone number in phone number field, we will receive a pop-up message as please enter phone number, and we expected the same result, hence the test is passed.
- Empty Check-In date:- If User doesn't provide Check-In date in Check-In date field, we will receive a pop-up message as please enter Check-In date, and we expected the same result, hence the test is passed.
- Empty Check-Out date:- If User doesn't provide Check-Out date in Check-Out date field, we will receive a pop-up message as please enter Check-Out date, and we expected the same result, hence the test is passed.

## 5) Results and inference:

### Result







Hotel Villa

localhost/cbikhotel/admin/addroom.php

Room Category:

Select Room Category

Room Title:

Charge:

Room Count:

Description:

Photo:

Browse... No file selected.

Published:

Yes

SAVE

Search

ENG IN 07:01 13-06-2023


Hotel Villa

localhost/cbikhotel/admin/reservations.php

WELCOME ADMIN LOGOUT

Hotel Villa

HOME RESERVATIONS ROOMS



ROOM RESERVATIONS

Name	Email	Phone	Room	Rooms	Adults	Kids	Arrival Date	Departure Date	Confirm	Delete
Shruti Gurav	shrutigurav4554@gmail.com	7975589468	Standard Room	1	1	0	27 May, 2023	29 May, 2023		Delete
Aishwarya Patil	aishwarayapati22178@gmail.com	7411822108	Luxury Room	2	2	0	10 May, 2023	13 May, 2023		Delete


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localhost/cbikhotel/admin/reservations.php


Search ENG IN 07:02 13-06-2023

Hotel Villa


localhost/cbikhotel/rooms.php



[HOME](#)
[ABOUT US](#)
[ROOMS](#)
[RESERVATION](#)
[CONTACT US](#)




## ROOMS




**A/C ROOM**  
Luxury Room

From Rs. 5000 [Book Now](#)  
A/C room with swimming facilities



**STANDARD ROOM**  
Standard Room

From Rs. 1500 [Book Now](#)  
Non ac room with swimming facilities




**A/C ROOM**  
Delux A/C Room

From Rs. 2500 [Book Now](#)  
A/C Room

localhost/cbikhotel/rooms.php

Search



ENG IN 07:02 13-06-2023

Hotel Villa

localhost/cbikhotel/reservation.php

## SEND REQUEST FOR ROOM RESERVATION

Arrival Date:

Departure Date:

Choose Room:

Select Room

No. of rooms:

Select Rooms

No. of adults:

1

No. of Kids:

0

Your Name:

Your Address:


Your email address:

Your phone number:

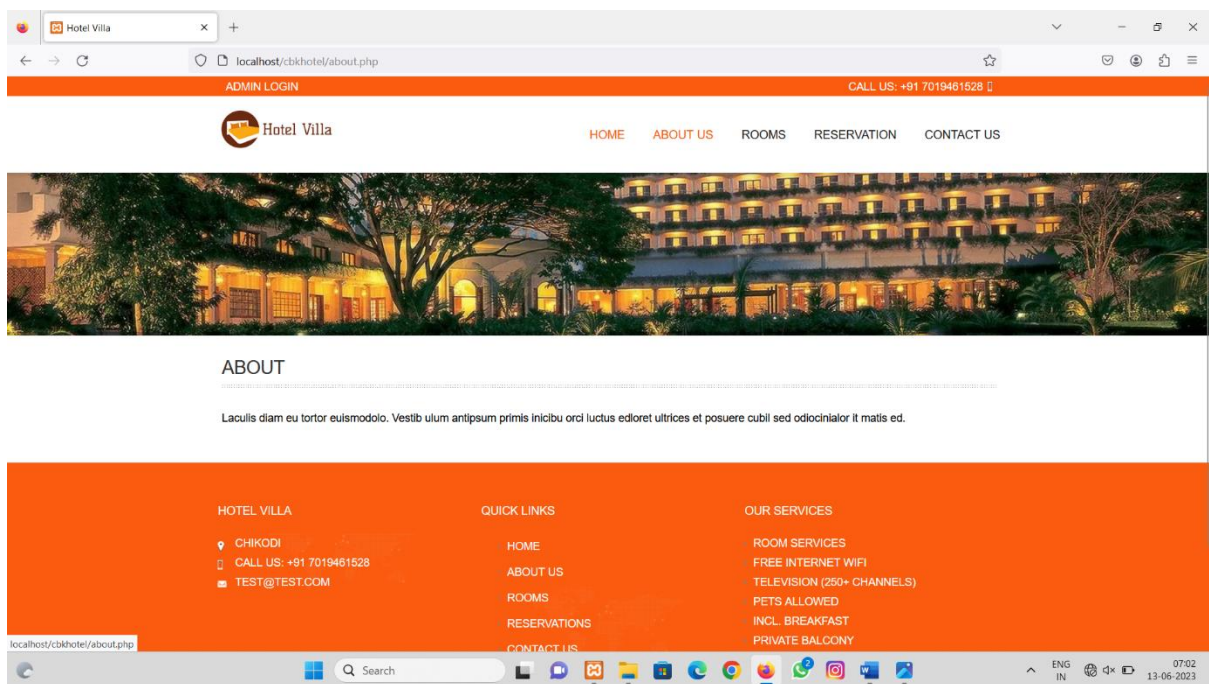
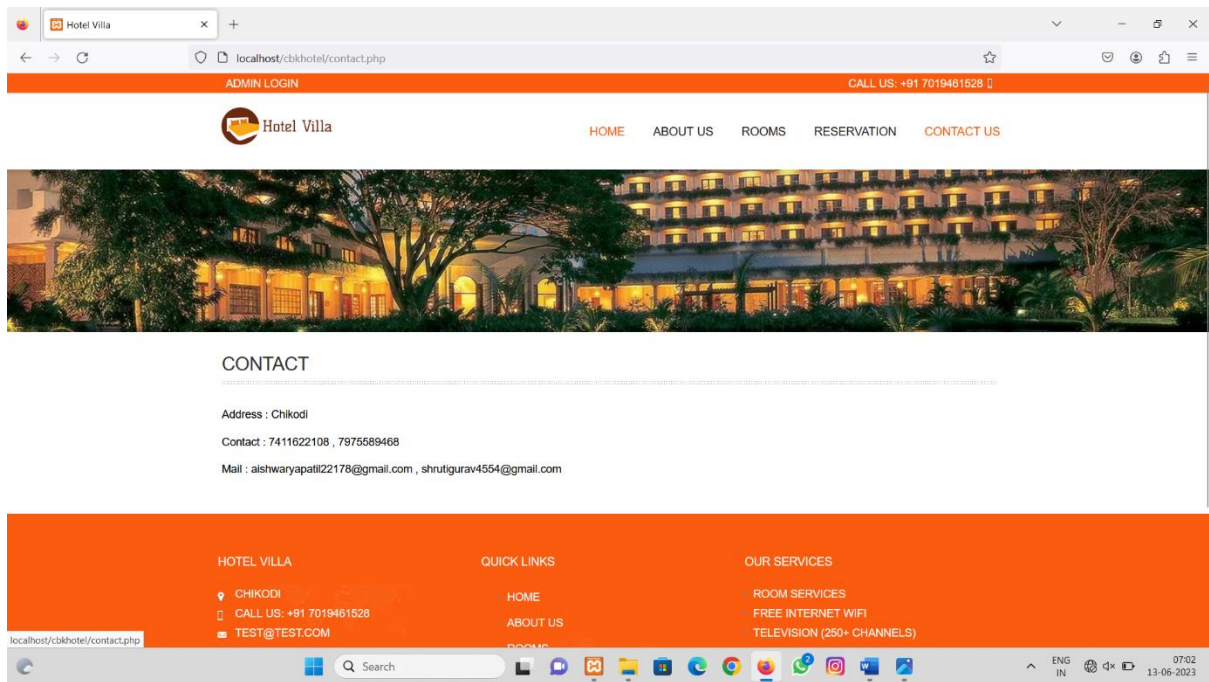
Special Requirements:

CALCULATE BILL

Search



ENG IN 07:02 13-06-2023



## ➤ Inference

- **Admin login**

Admin login is really important in our project because admin manages everything related to users. Admin can add the room or manage the room, he can add the room type and room photos and information. Admin also can view the list of booked room and view the user details.

- **Manage Room**

This page is only visible and handled by admin. Admin can add the room, he can add the room type, he can add the room photo and information. He also can delete the room.

- **View Room Booking**

This page is only visible and handled by admin. Admin can view the list of booked room. And also he can view the user information.

- **View Room**

This page is for the user he can view the rooms, he can view all information about the room and hotel.

- **Check Room Available**

User can check the availabilities of the room. For there booking purpose.

- **Book Room**

This page is for user after viewing rooms and checking the availabilities of room user can book the room which they want. He can book the room with all appropriate details.

Date

Signature of the student

Signature of the cohort owner