Hotel Management System

SRS

Introduced by G4

Executive Summary

Hotel Manager system make you don’t have to sit and manage the entire activities on paper. And at the same time Owner of the Hotel will feel comfortable to keep a check on Hotel easily from anywhere around the world. This System will give them power and flexibility to manage the entire system from a single online portal. Hotel management System provides room booking, staff management and bill generation features.

Document Overview

This document introduce Hotel Management System study plan. It introduces general description, technical description, development plan, operation plan, cost analysis and marketing study.

Introduction

Today, Online Hotel Management System is considered a fast management method because of its accuracy and speed. It is also needed less manpower to handle the management . Almost all Hotels today, are managing their services by online management system, since it reduces manager's and owner's time in management and check Hotel conditions . Owners can also easily monitor the work of the stuff that they do through all day . It also helps diminishing the need for paper. Online Management systems are very useful to learn it is significantly important to the management , saving the time and effort that is required to check the all management papers that related to the stuff , and all booking and the other services that the hotel offers to the customers . Receptionists also know about any reservation done by the customers online on the hotel web site , therefore they can prepare the rooms for the customers before they came. Before Hotel management systems , calculations of room cost , displaying it and anything like that is done manually, The chance of being wrong is higher . with the development of information technology and use it in an orderly and properly helps to overcome the existing error in the manual system . Online Hotel Management system saves the changes information in a database, and this make it an easier way to give owners and managers can add theirs rules , and the stuff can take their attendance in an easy way. The system allows the manager to keep track on available rooms in the system and even maintain staff details like their hours worked and salary. Customers can view and book an available room online and the system will automatically generate the bill according to the number of days the type of room is booked.

System Description:

What is Hotel Management

System Imagine that the Hotel Manager don’t have to sit and manage the entire activities on paper. And at the same time Owner of the Hotel will feel comfortable to keep a check on Hotel easily from anywhere around the world.

Management

The system allows the Owner to check the Progress of the hotel from interactive Graphs and he will be notified of each new change made in System. It also allows the manager to keep track on available rooms in the system and even maintain staff details like their hours worked and salary.

Booking

Customers can view and book an available room online and the system will automatically generate the bill according to the number of days the type of room is booked. The system will be so simple and attractive which will make the customer comfortable to use and choose their ideal room.

System Architecture

Hotel Management system introduces huge amount of reservation contents and many reservation services (as user accounts , the room they booked .. etc.) The system offer the contents and service to both mobile and desktop users via web site. The Hotel Management system contains huge Amount of Data . The system offer the contents and service to both mobile and desktop users via webbased or dedicated Mobile software.

These are main Entities :

(1) Storage, (2) Data Processing, (3) Data Analytics,(4) Owner , (5) Manger , (6) Employee , (7) Client , (8) Hotel , (9) Book , (10) Payment ,(11) General Mobile Application

Storage :

There is a huge data storage for this project all of them are accessed to the Owner and Hotel Manger to be updated with everything happen in the hotel . Main storage are developed using MYSQL Database system .

Data Processing:

We have developed a secure, user-friendly Hotel Management System. This System can take care of each member whether its Owner or Customer. This System will Help them to properly Manage their Hotel and help in growth without creating and hassle. This System is completely secure since every user is provided with user ID and Password so there is no chance of any unauthorized access.

Data Analytics:

Online Payment, Booking and cancellation make it easier to use. So, using this system will help in reducing the labor and provide more facility for Customer to like Hotel and visit again and again.

Main Modules

Owner:

The owner is a super user of the system. The owner is just like admin. The owner has all right to view and modify the data in the system. The owner has followings attributes.

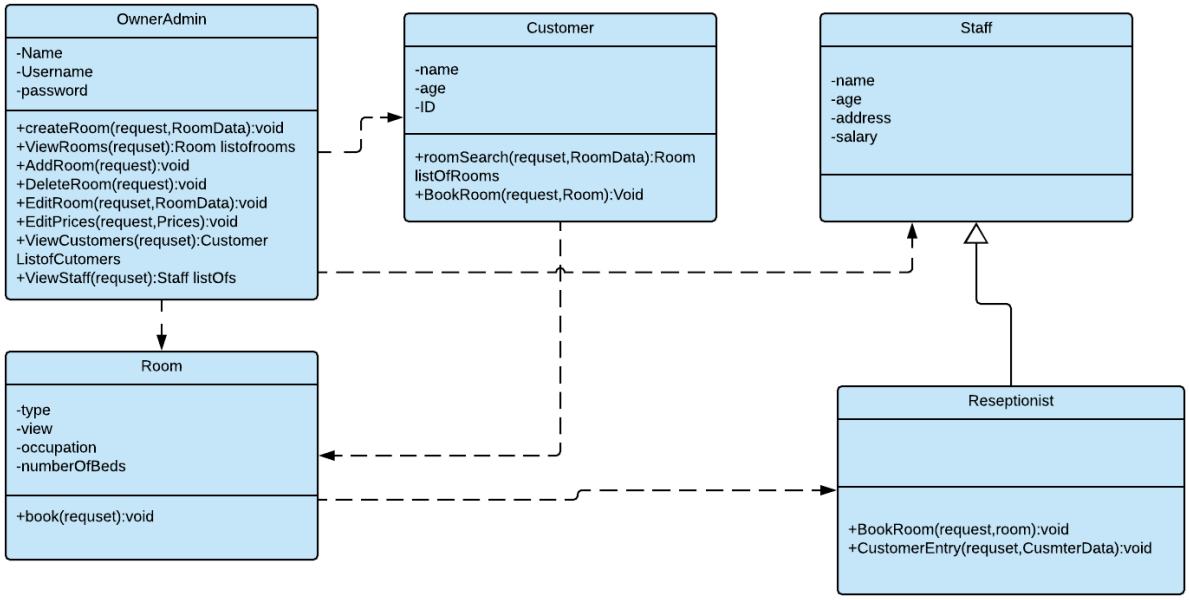
Staff:

The employee is another user of the system. An employee can view hotel details, verify the online booking room availability for clients. The employee has followings attributes.

Customer:

The client is the basic end user of our system most of the business is done through them. Clients would book the desired hotel room. The client would provide the feedback. The client has following attributes.

Modules Diagram



Owner module

The owner has the full Authority to change and add many things to the system.
- He can add rooms of an existed type of rooms , can create a new type of rooms that doesn't exist before in the system.
-Owner can keep track on his hotel even if he is far away , it will be easy for him to check the hotel's staff , who has arrived , who has left.
- Add an employee to a certain staff team .
-remove an employee / edit its details.
-Add a new staff team to the hotel .
- edit or remove a staff team
- he can also check the availability of a room

userName :

This attribute would hold the name of the owner. The name is varchar type variable which holds the data length up to 250 characters.

password:

Staff:

- The receptionist will check all the details of Customer check-in and check-out date and time and settles any pending payments. And He will have authority to allow Room number to Customer on their arrival. He will take care of all customer needs and their comfort.
- take attendance of any employee in the hotel :D , but he must log in with his account to be able to change the status of any employee.

receptionist or any employee has the following attributes:

- Name
- phone
-address
-email
- profile picture

Client:

-The client is the basic end user of our system most of the business is done through them. Clients would book the desired hotel room. The client would provide the feedback.
- can search rooms with his desired specifications
- choose check-in and check-out date
- book and pay online

The client has following attributes.

Name:

This attribute would hold the name of clients. The name is varchar type variable .

Email.:

This is an essential attribute of the table. Every client must have a working email id. This field has validation only email formatted values will be stored.

Address:

This attribute would hold the address of clients. Address of clients would help us to connect with them and visit the location. This would provide better services.

System Main Function

OwnerAdmin Functions:

CreateRoom

Description:enable the owner to create a new room in the data base with all the features he wants
Input:request,RoomData
Output:Void

AddRoom

Description:enable the owner to create an extra room in the data base with all the features of the room he chooses
Input:request
Output:Void

DeleteRoom

Description:enable the owner to deletean exsiting room from database
Input:request
Output:Void

EditRoom

Description:enable the owner to edit the feature of existing room in database
Input:request,RoomData
Output:Void

EditPrices

Description: enable the owner to change the prices of services in his hotel
Input:request,PricesData
Output:Void

ViewCustomers

Description:enable the owner to view the customers public data
Input:request

Output:customerData

ViewStaff

Description:enable the owner to view the StaffData
Input:request
Output:StaffData

Customer Functions:

RoomSearch

Description:enable the Customer to search for desied room with all the features he/she wants
Input:request
Output:RoomData

BookRoom

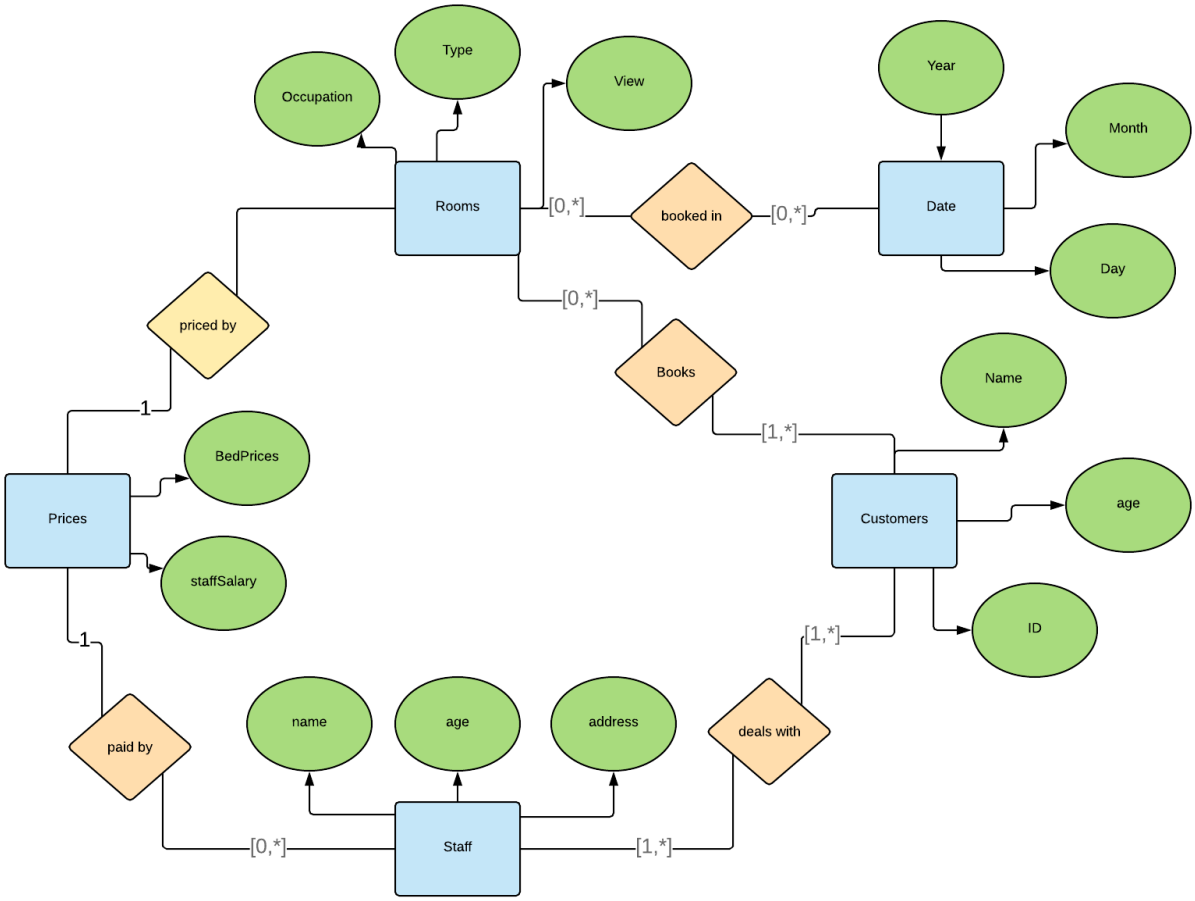
Description:enable the owner to view the StaffData
Input:request
Output: Void

Staff Functions:

BookRoom

Description: enable the Reseptionistto book rooms for customers offline at the hotel reseption
Input: request
Output: Void

System Main Models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1.1 Functional Requirements

Functional requirements define the fundamental actions that system must perform.
The functional requirements for the system are divided into three main categories, Reservation/Booking, Food, and Management. For further details, refer to the use cases.

1. Reservation/Booking

1.1. The system shall record reservations.
1.2. The system shall record the customer's first name.
1.3. The system shall record the customer's last name.
1.4. The system shall record the number of occupants.
1.5. The system shall record the room number.
1.6. The system shall display the default room rate.
1.6.1. The system shall allow the default room rate to be changed.
1.6.2. The system shall require a comment to be entered, describing the reason for changing the default room rate.
1.7. The system shall record the customer's phone number.
1.8. The system shall display whether or not the room is guaranteed.
1.9. The system shall generate a unique confirmation number for each reservation.
1.10. The system shall automatically cancel non-guaranteed reservations if the customer has not provided their credit card number by 6:00 pm on the check-in date.
1.11. The system shall record the expected check-in date and time.
1.12. The system shall record the expected checkout date and time.
1.13. The system shall check-in customers.
1.14. The system shall allow reservations to be modified without having to reenter all the customer information.
1.15. The system shall checkout customers.
1.15.1. The system shall display the amount owed by the customer.

1.15.2. To retrieve customer information the last name or room number shall be used
1.15.3. The system shall record that the room is empty.
1.15.4. The system shall record the payment.
1.15.5. The system shall record the payment type.

1.16. The system shall charge the customer for an extra night if they checkout after 11:00 a.m.
1.17. The system shall mark guaranteed rooms as “must pay” after 6:00 pm on the check-in date.
1.18. The system shall record customer feedback.

2. Management

2.1. The system shall display the hotel occupancy for a specified period of time (days; including past, present, and future dates).

2.2. The system shall display projected occupancy for a period of time (days).

2.3. The system shall display room revenue for a specified period of time (days).

2.4. The system shall display food revenue for a specified period of time (days).

2.5. The system shall display an exception report, showing where default room and food prices have been overridden.

2.6. The system shall allow for the addition of information, regarding rooms, rates, menu items, prices, and user profiles.

2.7. The system shall allow for the deletion of information, regarding rooms, rates, menu items, prices, and user profiles.

2.8. The system shall allow for the modification of information, regarding rooms, rates, menu items, prices, and user profiles.

2.9. The system shall allow managers to assign user passwords.

1.2 Nonfunctional Requirements

Functional requirements define the needs in terms of performance, logical database requirements, design constraints, standards compliance, reliability, availability, security, maintainability, and portability.

1.2.1 Performance Requirements

Performance requirements define acceptable response times for system functionality.

- The load time for user interface screens shall take no longer than two seconds.
- The log in information shall be verified within five seconds.
- Queries shall return results within five seconds.

1.2.2 Logical Database Requirements

The logical database requirements include the retention of the following data elements. This list is not a complete list and is designed as a starting point for development.

Booking/Reservation System

- Customer first name
- Customer last name
- Customer address
- Customer phone number
- Number of occupants
- Assigned room
- Default room rate
- Rate description
- Guaranteed room (yes/no)
- Credit card number
- Confirmation number
- Automatic cancellation date

- Expected check-in date
- Expected check-in time
- Actual check-in date
- Actual check-in time
- Expected check-out date
- Expected check-out time
- Actual check-out date
- Actual check-out time
- Customer feedback
- Payment received (yes/no)
- Payment type
- Total Bill

1.2.3 Design Constraints

The Hotel Management System shall be a stand-alone system running in a Website. The system shall be developed using PYTHON.

1.2.4 Standards Compliance

There shall be consistency in variable names within the system. The graphical user interface shall have a consistent look and feel.

1.1.1 Reliability

Specify the factors required to establish the required reliability of the software system at time of delivery.

1.2.5 Delivery

The system shall be available any time visiting the website with resonable data coomunication .

1.2.6 Security

Customer Service Representatives and Managers will be able to log in to the Hotel Management System. Customer Service Representatives will have access to the Reservation/Booking and Food subsystems. Managers will have access to the Management subsystem as well as the Reservation/Booking and Food subsystems. Access to the various subsystems will be protected by a user log in screen that requires a user name and password.

1.2.7 Technology

The Hotel Management System is being developed in Python. Python is an object oriented programming language and shall be easy to maintain.

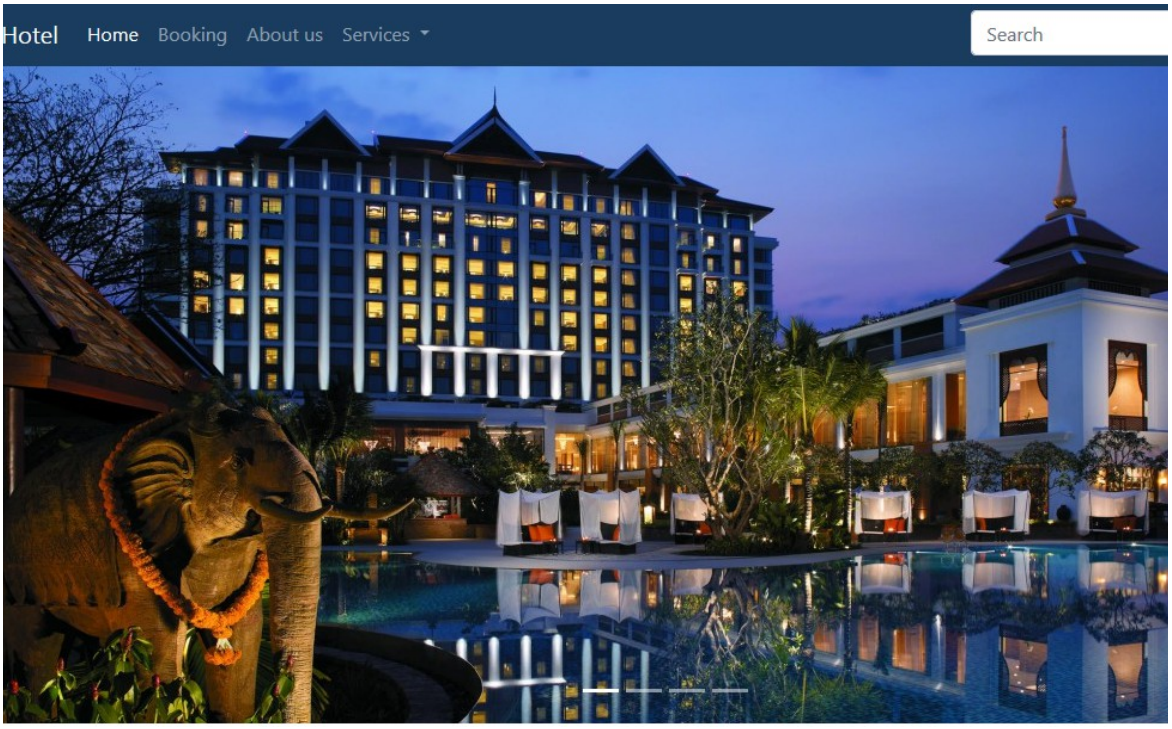
1.2.8 Legal

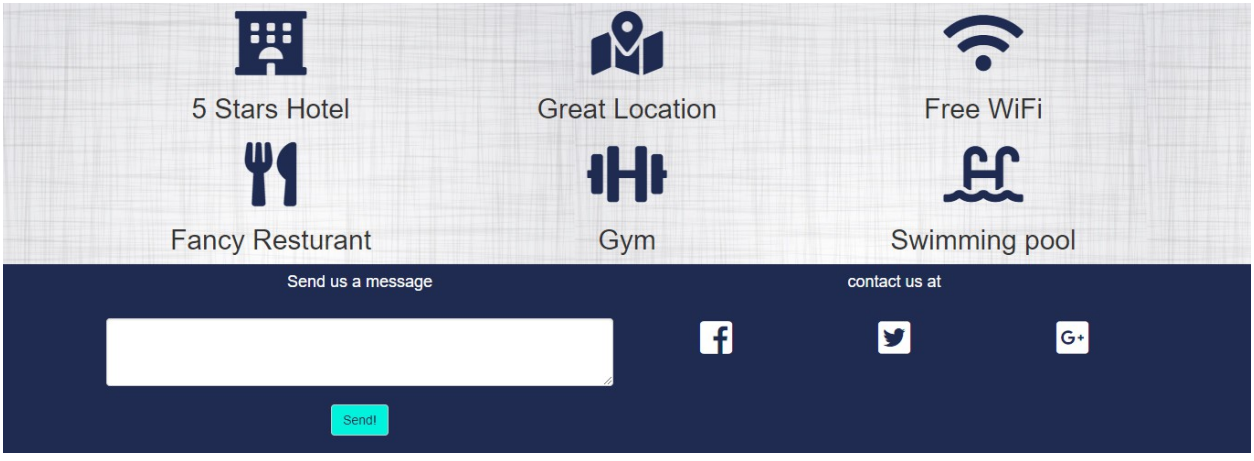
The system shall be a standalone product that does not require any communication interfaces.

1.2.9 Graphical user interface

Website Home page :

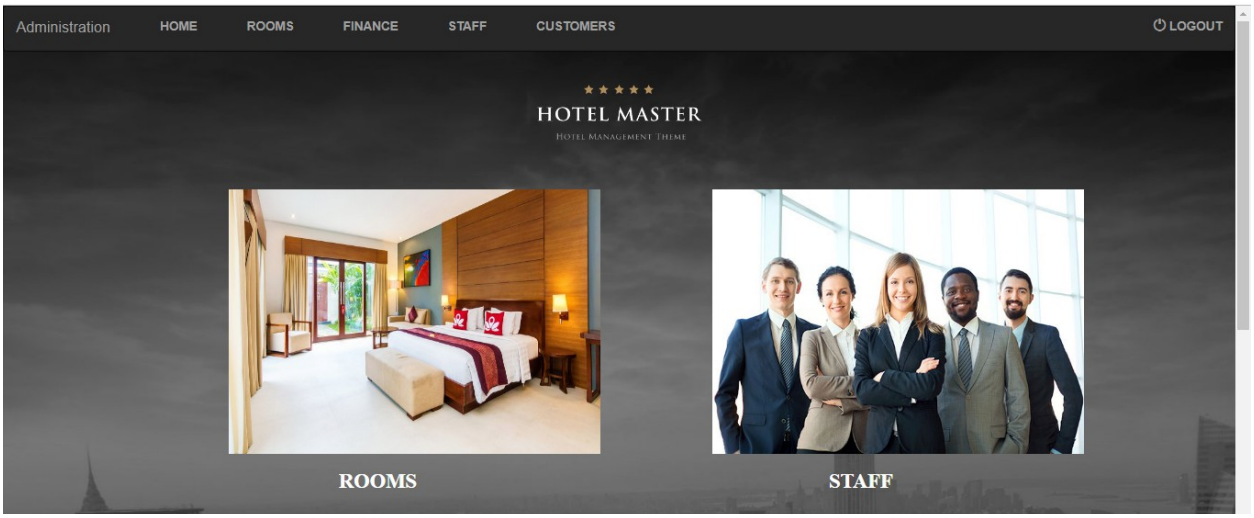
Home-page



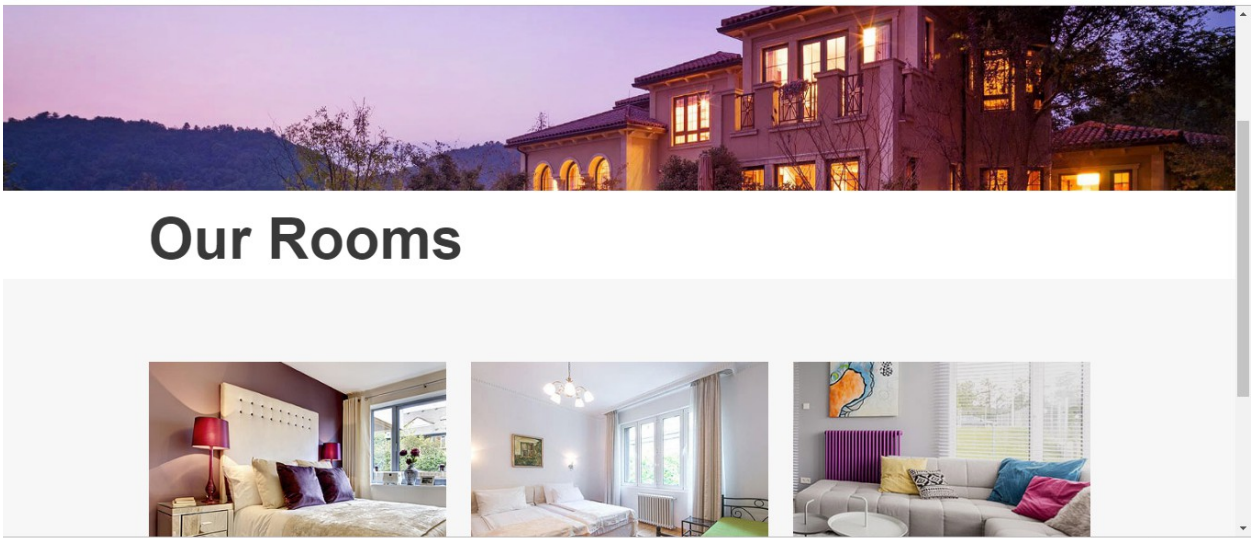


Owner Admin:

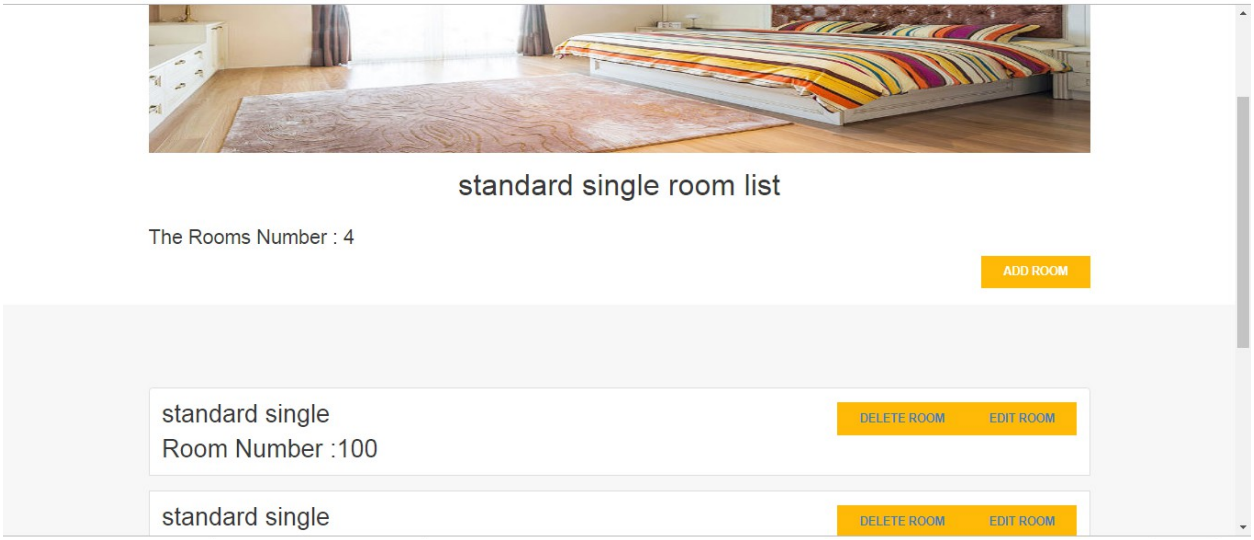
Owner Administration Home-page



Owner Administration Rooms-page



Owner Administration Room- Detail



Staff :

Staff teams