Chapter 1:
Introduction

1.1 Client /Organization Profile:

Client Name: - Jay Ladava

Location & Address: - Kothrud, Sastry Nagar, near ram Nager, Pune.

About Organization:

Hotel are able to automate the process. It is useful for authorities which keep track of all the users registered. The authority can hotel packages room detail and availability of rooms, online booking and other packages. hotel provides all kind of rooms like single, double. During the past several decades, the records aresupposed to be manually handled for all activities. The manual handling of records is time consuming and highly prone to error. To improve the performance of the hotel management system, the computerized system had to be undertaken.

1.2 Need for System:

- The changing technology waves have drastically turned every aspect of our lives. And, most travelers these days, use technology to plan their trips, one way or the other. Therefore, it is essential to implement the latest hospitality technologies; for hoteliers to meet their guests' needs.
- Using a well-crafted, fine-tuned software for hotel business saves your both time and effort in carrying outof your managerial tasks and business services.
- It saves organization resources and expenses.
- This boosts your staff productivity as well as avoids operational mistakes.

1.3 Scope and feasibility of Work:

- Today hotel management is not only confined to hotels but has gone deep into tourism, catering, clubs, etc. making it a very paying and an exciting career option.
- With the rapid growth of the hotel industry pushed forward by foreign and domestic tourism and business travels, the demand for well trained and quality personnel too has gone up high. India is one of the preferred tourist and travel destinations.
- In future more features may be added category-wise. It may try to analyze the user behavior andpreferences and accordingly suggest.

1.4 Operating Environment: -

- **Client side-hardware:**

  RAM: 2 GB

  CPU Speed: 2.4 GHZ

  Hard Disk: 250 GB

- **Server-Side Hardware:**

  RAM: 2GB

  CPU Speed 2.6 GHz

  Hard Disk: 150 GB

- **Client-side Software:**
  - **Windows Front end:**

    Java Core

    AWT

    Swing
  - **Backend:**

    MySQL Command Line Client 5.5

1.5 Architecture of System:

I have tried to show how the data/information in hotels is managed. This is just an overview of management in hotels. It manages and maintains the records of customers, rooms, employees and drivers in the hotel. The project is aimed to maintain the day-to-day state of admission/vacation of Residents, List of employees, room details etc. Main objective of this project is to provide a solution for hotels to manage most their work using computerized processes.

This software application will help admin to handle customer information, room allocationdetails, Payment details etc.

The rooms have different categories like single bed, double bed etc. so their charges and recordswill be maintained accordingly.

This software has been made in a user-friendly interface, so that anyone can add, delete, update the entries and handle all the transactions easily. As a security I have provided Admin usernameand Password.

The project, Hotel Management System is a desktop-based application that allows the hotel manager to handle all hotel activities online. Interactive GUI and the ability to manage various rooms, employees, drivers and customers make this system very flexible and convenient. This application gives managers the power and flexibility to manage the entire system from a single online system. Hotel management project provides room booking, staff management and other necessary hotel management features. The system allows the manager to post available rooms inthe system.

1.6 Detail Description of Technology Used:

We have used java programming language in this project.

java is a general-purpose, class-based, object-oriented programming language designed for having lesser implementation dependencies. It is a computing platform for application development. Java is fast, secure,and reliable, therefore. It is widely used for developing Java applications in laptops, data centers, game consoles, scientific supercomputers, cell phones, etc.

Swing and AWT

It is a Java Graphical User Interface (GUI) toolkit. It is an Application Programming Interface (API) for providing aGraphical User Interface (GUI) for Java programs.

It is a part of the JFC (Java Foundation Classes), that is an API for providing a graphical user interface for Javaprograms.

It is used to create a GUI with Java.

Features of Swing:

- All features of AWT
- Provides a rich set of higher-level components like a tree, tabbed panes, list boxes, etc.
- Pluggable look and feel.
- No dependency on peer components.

AWT is used for supporting user interface in Java Application. It provides the high-level abstraction for Javaprogram since it hides underlying GUI details. Since AWT is an API build on an Operating system to providea graphical user interface for Java. Its component has a dependency on the underlying counterpart (like the look and feel of that OS) to handle its functionality

AWT Features Includes:

- A rich set of user interface components.
- The robust event handling model
- Layout Manager for different window layout
- Data transfer classes support cut-paste through the native platform.

Java Development kit 8.0(JDK):

JDK is a software development environment used for making applets and Java applications. The full form ofJDK is Java Development Kit. Java developers can use it on Windows, macOS, Solaris, and Linux. JDK helps them to code and run Java programs. It is possible to install more than one JDK version on the same computer

Java Virtual Machine (JVM):

Java Virtual Machine (JVM) is an engine that provides a runtime environment to drive the Java Code or applications. It converts Java bytecode into machine language. JVM is a part of the Java Run Environment(JRE).

Chapter 2:
Proposed System

2.1 Purposed System:

- Proposed system is the computerized version of the existing system which provides easy and quickaccess over the data.
- Keeping the records of admission of Resident properly so that facilities provided by hotels are fullyutilized in effective and efficient manner.
- In proposed system customer and organization data will be secure with facility of username passwordalso these system gives facility to assigns the roles and rights.
- System will be error free, secure, reliable and fast management system

Advantages:

- Less Time consuming
- Maintain accuracy

2.2 Objective:

- To provide facility to employee to manage bookings i.e., Check-in and Checkout tasks
- To provide facility to admin to access and manage all Resort bookings and manage users
- To Keeping records of admission of customers.
- To provide Facilities to hotels are fully utilized in an effective and efficient manner.

2.3 User requirement:

There should be software which allocates rooms automatically and maintains records ofcustomers.

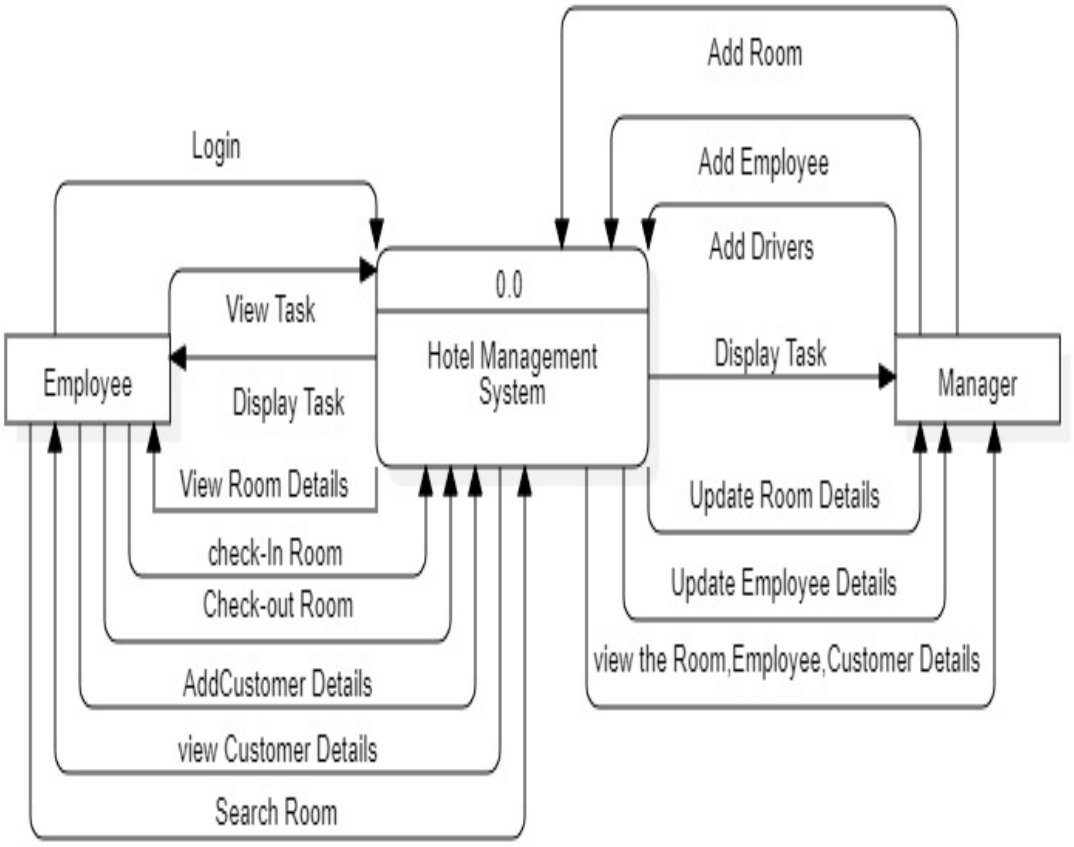
- record the customer’s first name and first name
- record the room number
- record reservations
- record the expected check-in and check-out
- record the customer’s phone number
- Admin can add Room, Employee, Driver
- Staff can add Check room status, check all employees’ details, Check all Customers’ details, Update roomstatus, Update check-in check-out status etc.
- Also, admin can access all information
- To retrieve customer information the name or room number shall be used
- The system shall allow managers to assign user password

Chapter 3:

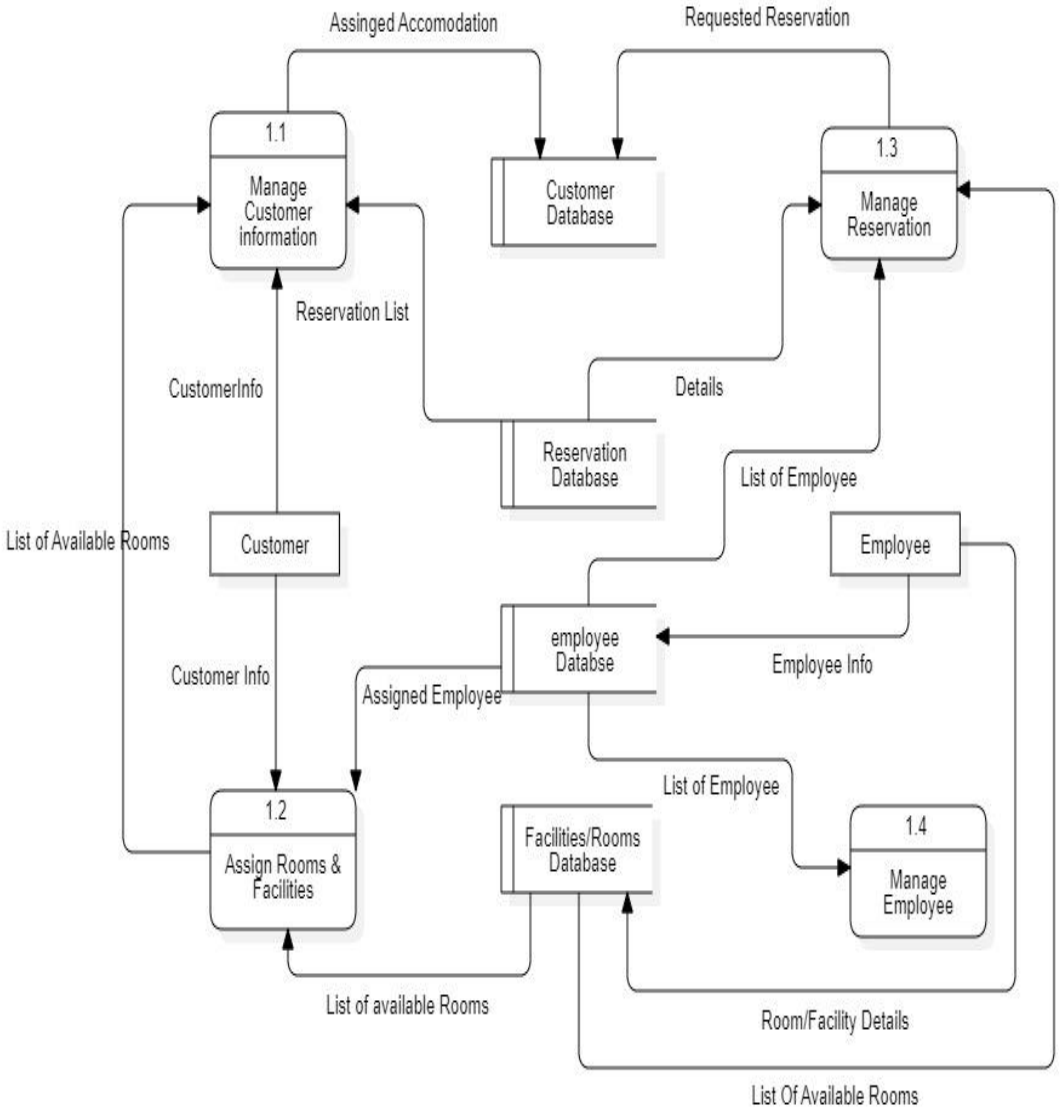
Analysis & Design

3.1 Data Flow Diagram for Hotel management System

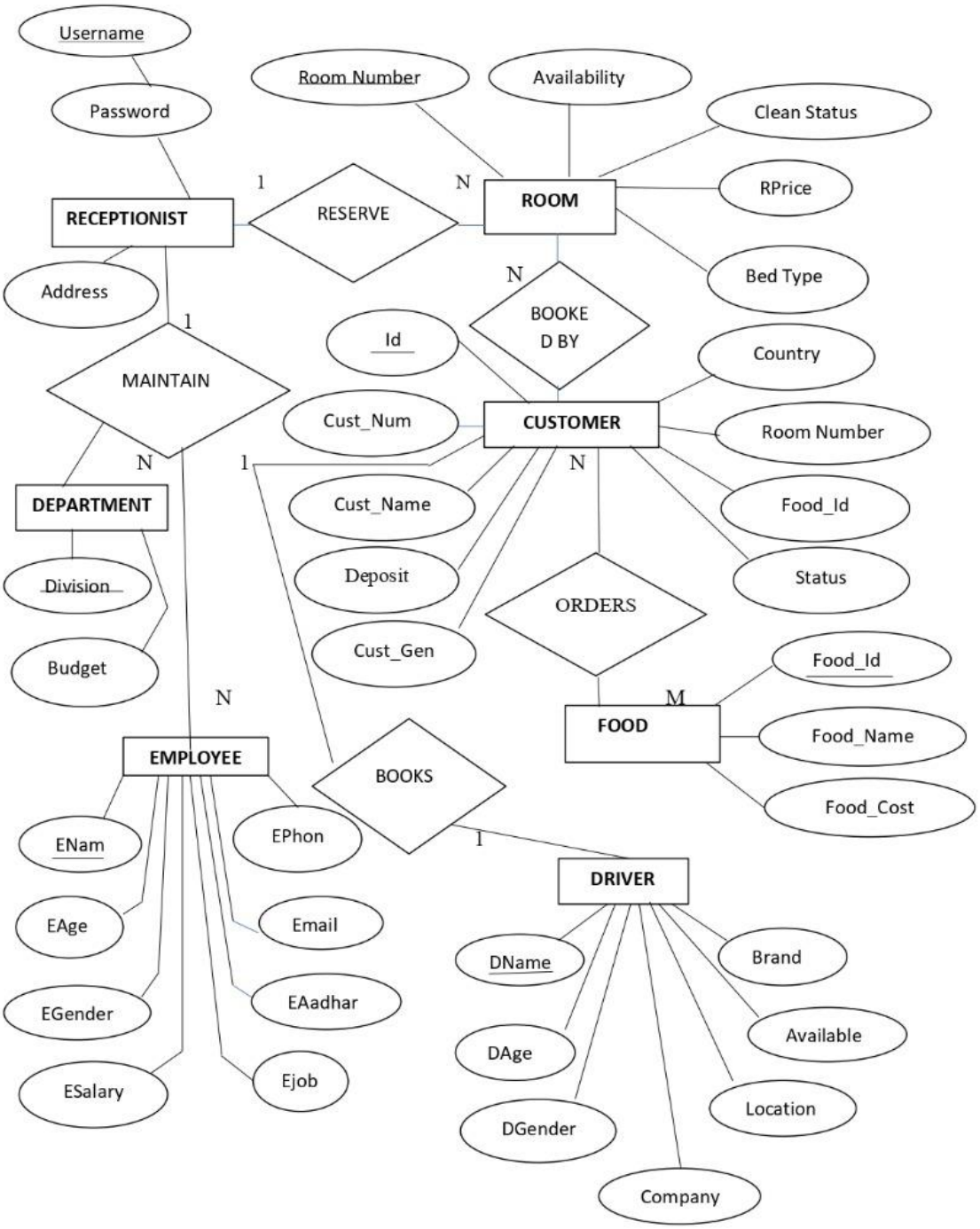
Context level Diagram:



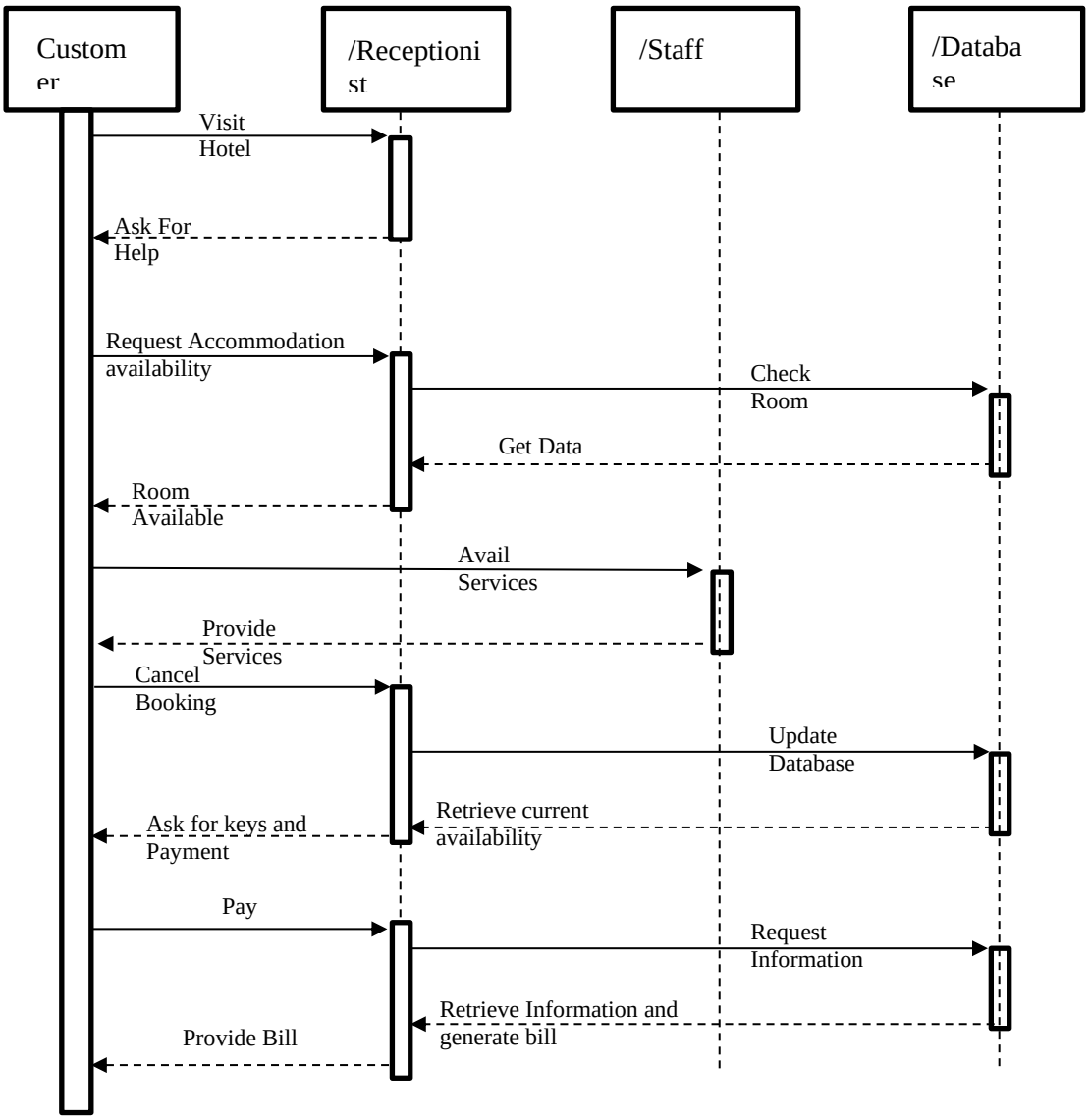
First Level Data Flow Diagram



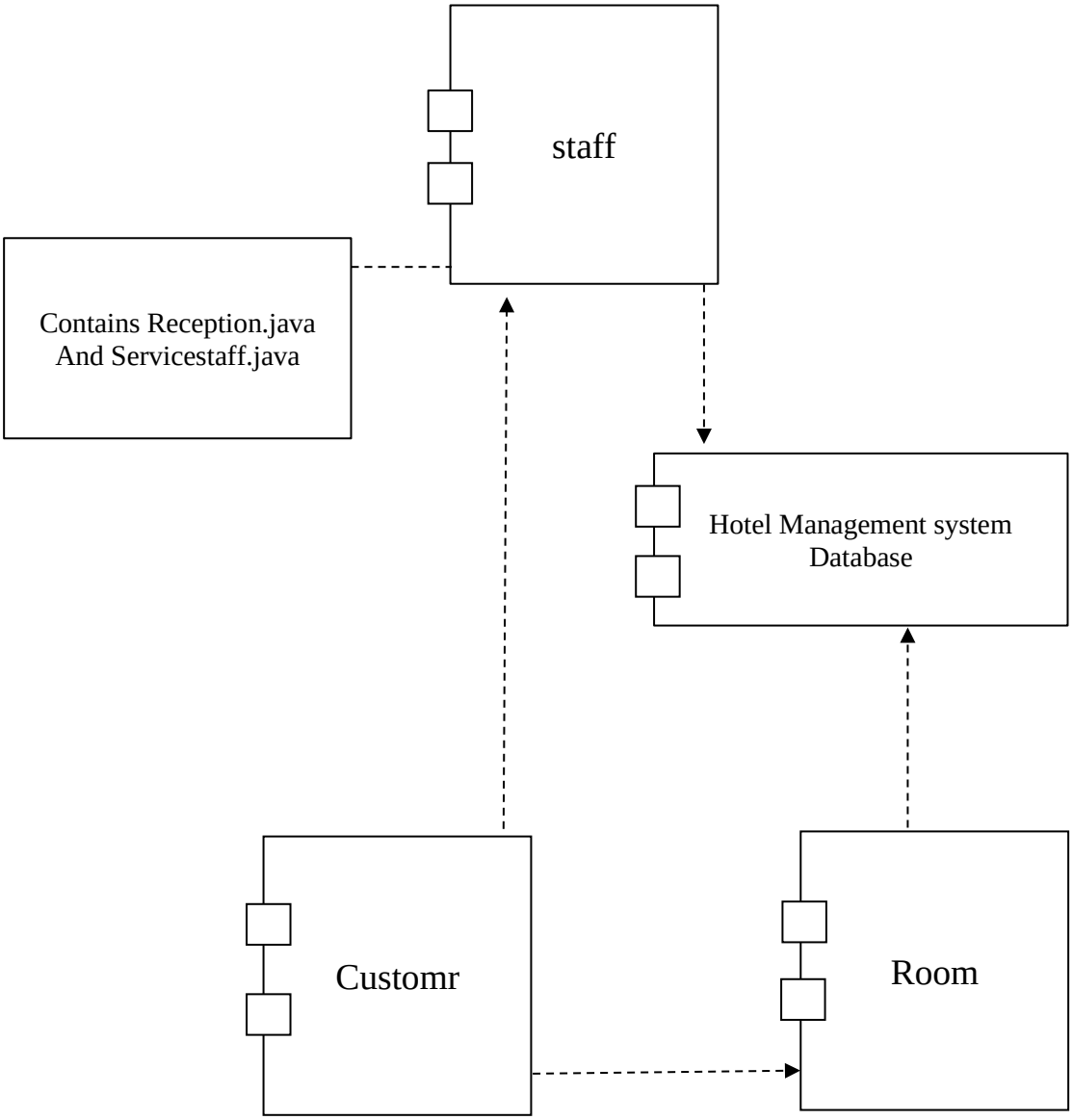
3.2 Entity Relationship Diagram for Hotel management System



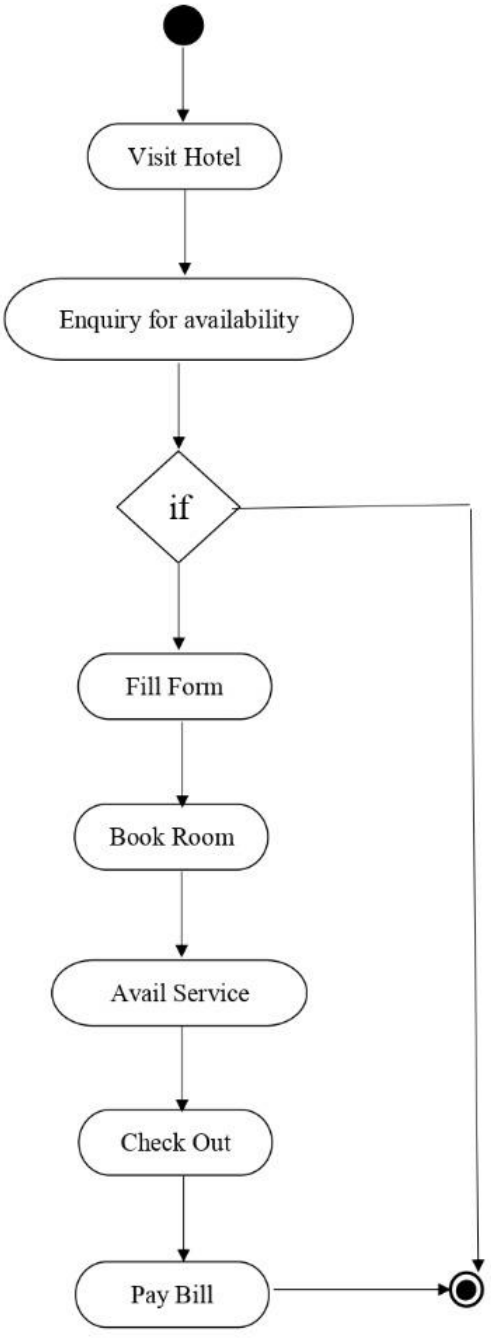
3.3 SEQUENCE DIAGRAM For Hotel Management System:



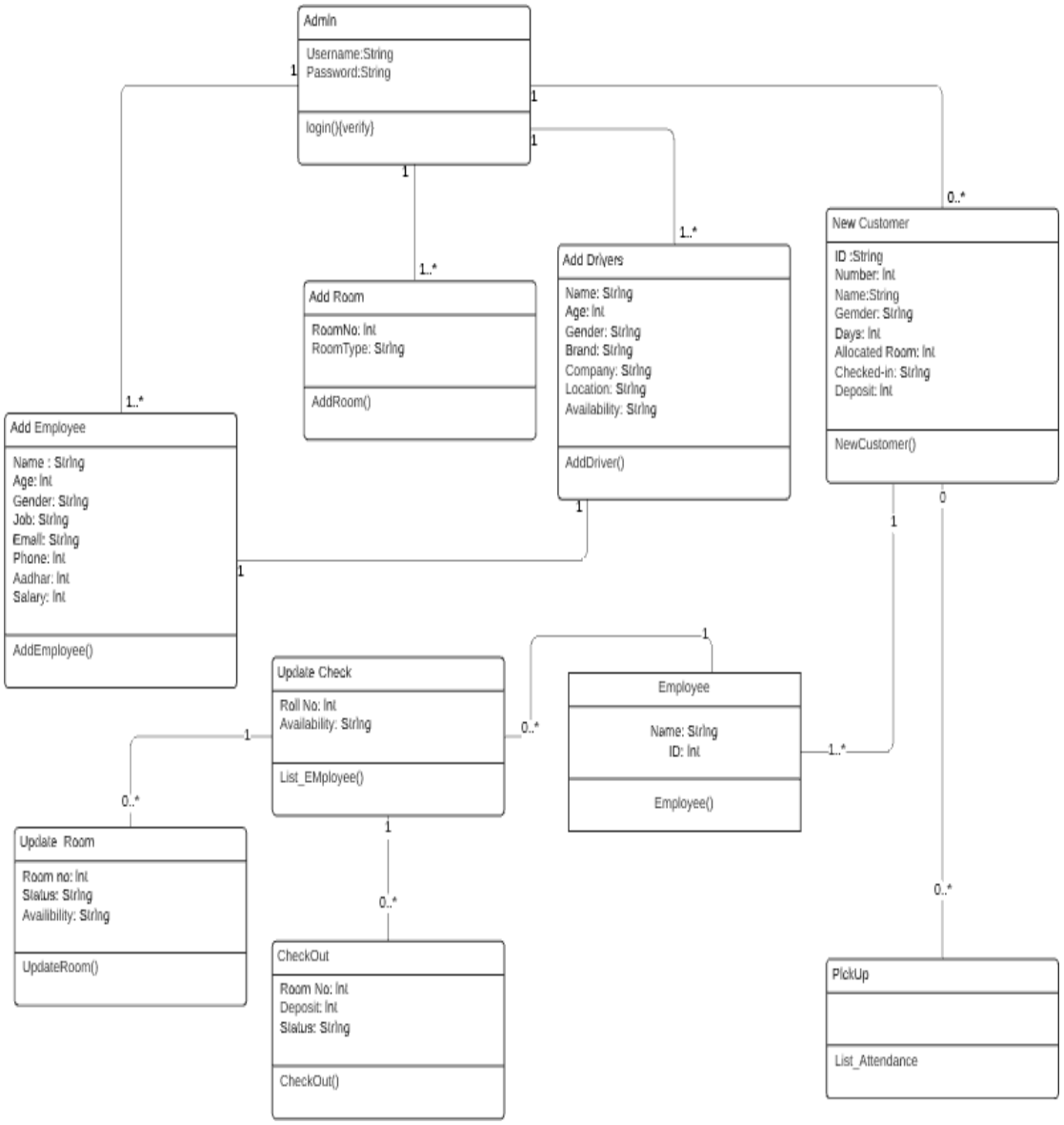
3.4 COMPONENT DIAGRAM For Hotel Management System:



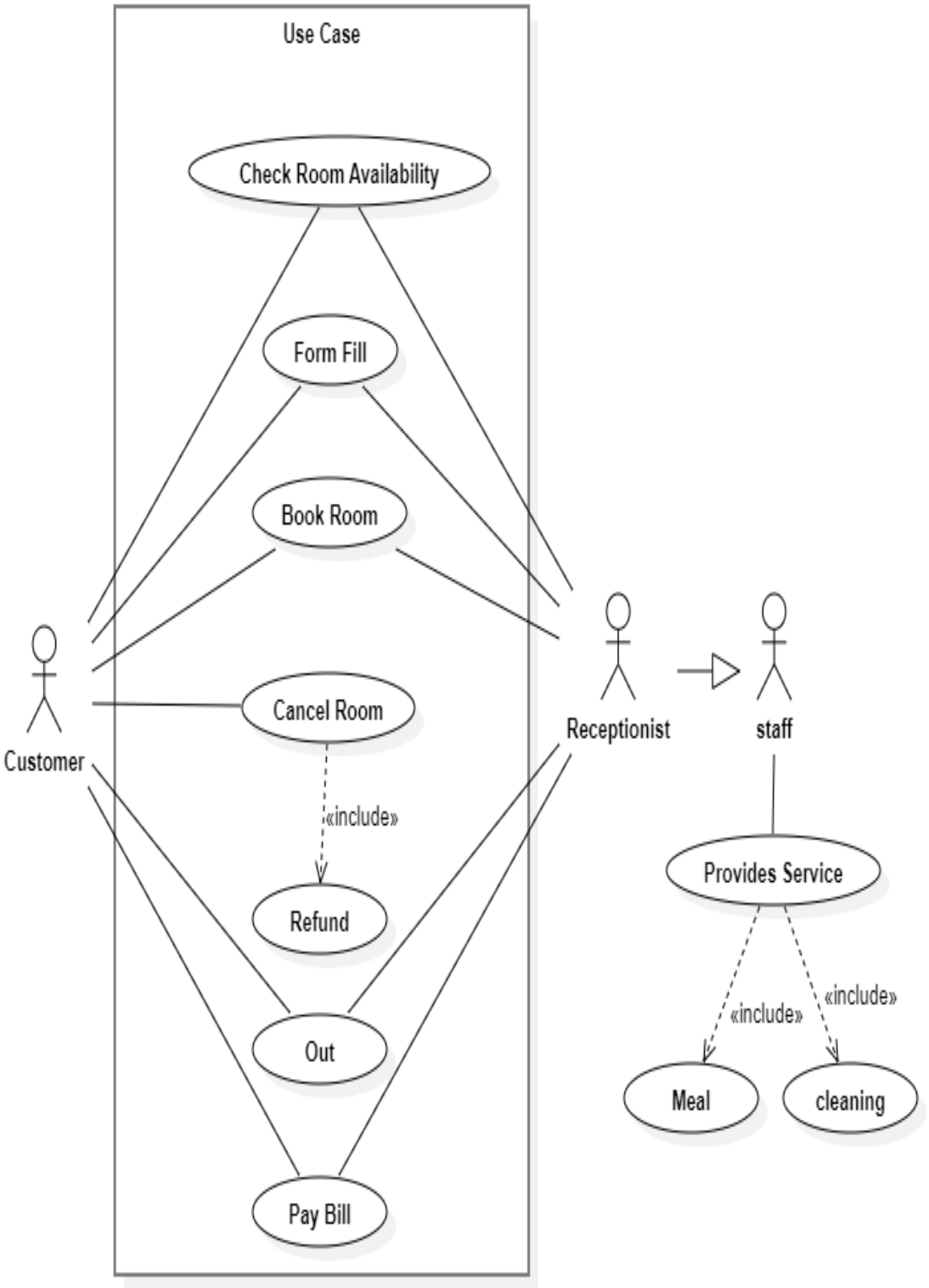
3.5 ACTIVITY DIAGRAM:



3.6 Class Diagram for Hotel management System:



3.7 Use Case Diagram for Hotel management System:



3.8 Use Case Diagram for Hotel management System:

Chapter 4

Database Table:

1.Login

This table Contains all details of login credential

Primary Key - Username

Field	Data Type	Constraint
Username	Varchar (30)	Primary Key
Password	Varchar (30)	Not Null

2.Registration:

This table Contains all details of login credential

Primary Key - First Name

Field	Data Type	Constrain
First Name	Varchar (30)	Primary Key
Last Name	Varchar (30)	Not Null
Username	Varchar (30)	Not Null
Password	Varchar (30)	Not Null

3.Room:

This table Contains all details of room available in hotel

Primary Key - Room_number

Field	Datatype	Constraint
Room_number	Numeric (30)	Primary Key
availability	Varchar (30)	Not Null
Clean status	Varchar (30)	Not Null

4.Customer:

ssThis Table contains all details of Customers stay in hotel

Primary Key - number

Field	Datatype	Constraint
id	Varchar (30)	Not Null
number	Numeric (30)	Primary Key
name	Varchar (30)	Not Null
gender	Varchar (30)	Not Null
country	Varchar (30)	Not Null
Room number	Numeric (30)	Not Null
Status	Varchar (30)	Not Null
Deposit	Numeric (30)	Not Null

5.Employee:

This Table contains all details of Employee in hotel

Primary Key – Aadhar

Field	Data Type	Constraint
Name	Varchar (30)	Not Null
Age	Numeric (30)	Not Null
Gender	Varchar (30)	Not Null
Job	Varchar (30)	Not Null
Salary	Number (30)	Not Null
Phone	Number (30)	Not Null
Aadhar	Number (30)	Primary Key
Email	Varchar (30)	Not Null

6 Driver:

This Table contains all details of Driver in hotel

Primary Key - Name

Field	Data Type	Constraint
Name	Varchar (30)	Primary Key
Age	Numeric (30)	Not Null
Gender	Varchar (30)	Not Null
Company	Varchar (30)	Not Null
Brand	Varchar (30)	Not Null
Available	Varchar (30)	Not Null
Location	Varchar (30)	Not Null

7.Department:

This Table contains all details of Driver in hotel

Primary Key - Department

Field	Data Type	Constraint
Department	Varchar (30)	Primary Key
Budget	Numeric (30)	Not Null

8 DATA DICTIONARY:

Field Name	Data Type	Description
Aadhar	Number (30)	Unique Identification of user
Age	Numeric (30)	Age of customer
Availability	Varchar (30)	Check room available or not
Brand	Varchar (30)	Vehicle brand name
Budget	Numeric (30)	Budget of hotel
Clean status	Varchar (30)	Check Room is clean or dirty
Company	Varchar (30)	Vehicle Company name
country	Varchar (30)	Country of the customer
Department	Varchar (30)	Store the Employee which department work
Deposit	Numeric (30)	Customer pay the advance
First Name	Varchar (30)	First name of customer
gender	Varchar (30)	Gender of customer
id	Varchar (30)	Unique Identification of customer
Job	Varchar (30)	Employee work in which department
Last Name	Varchar (30)	Last name of customer

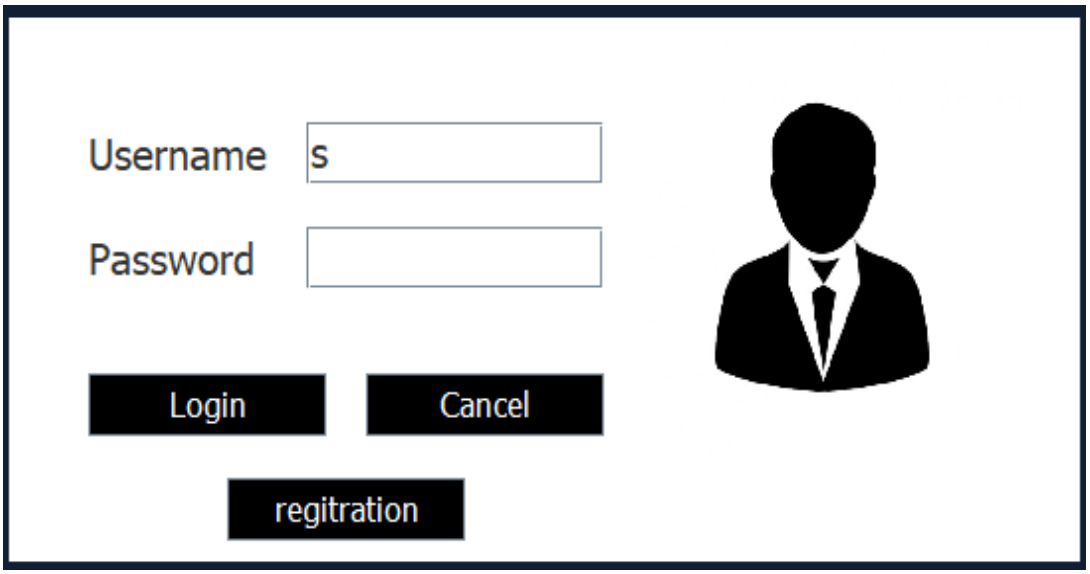
Location	Varchar (30)	Location of driver
Name	Varchar (30)	Name of employee
number	Numeric (30)	Unique Identification of employee
Password	Varchar (30)	Password of employee
Phone	Number (30)	Phone number of customer
Room number	Numeric (30)	Unique Identification of room
Salary	Number (30)	Salary of employee
Status	Varchar (30)	Check Room Status available or not
Username	Varchar (30)	Username of employee

Chapter 5:
User Manual

4.1 User Interface Design (Screen etc.)

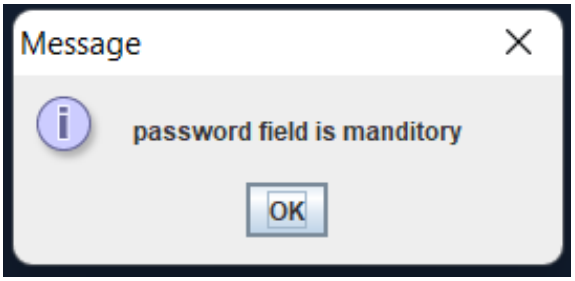
Start Screen

login Screen

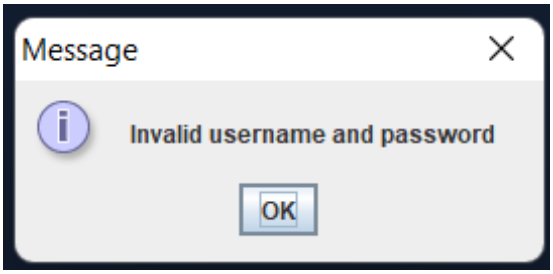


This is Login Page it validates User Name and Password

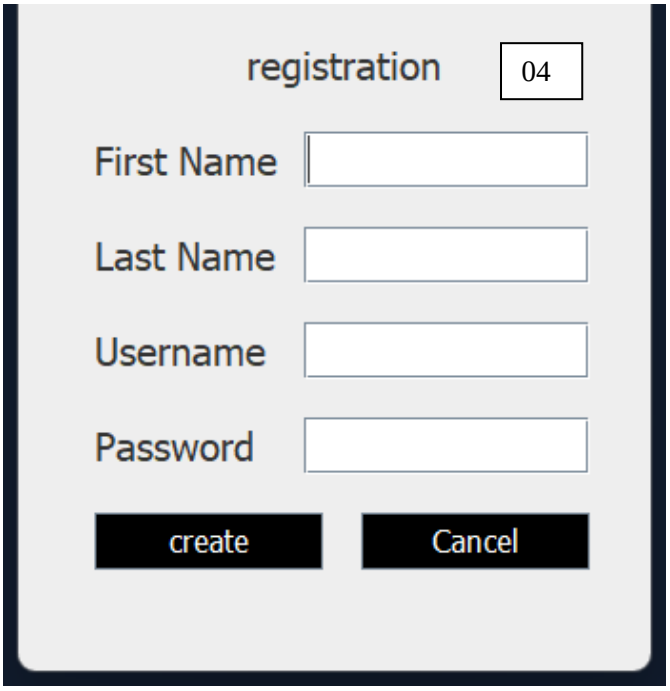
Validation

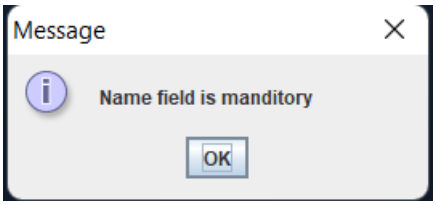

Message
password field is manditory
OK

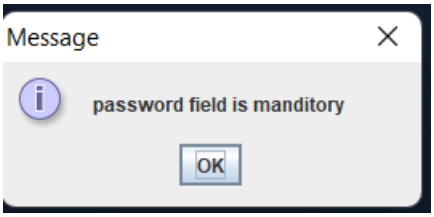

Message
username field is manditory
OK

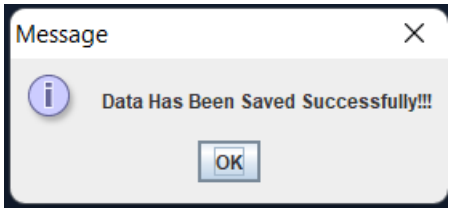

Message
Invalid username and password
OK

Registration

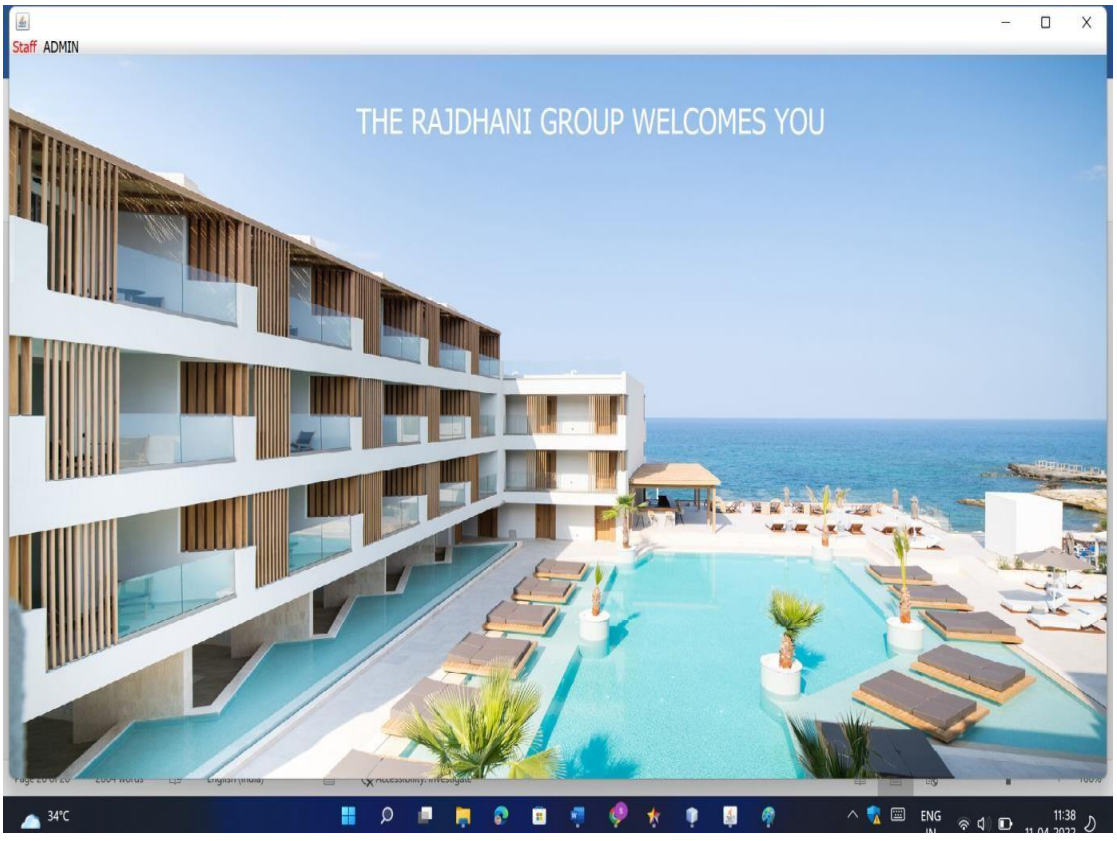




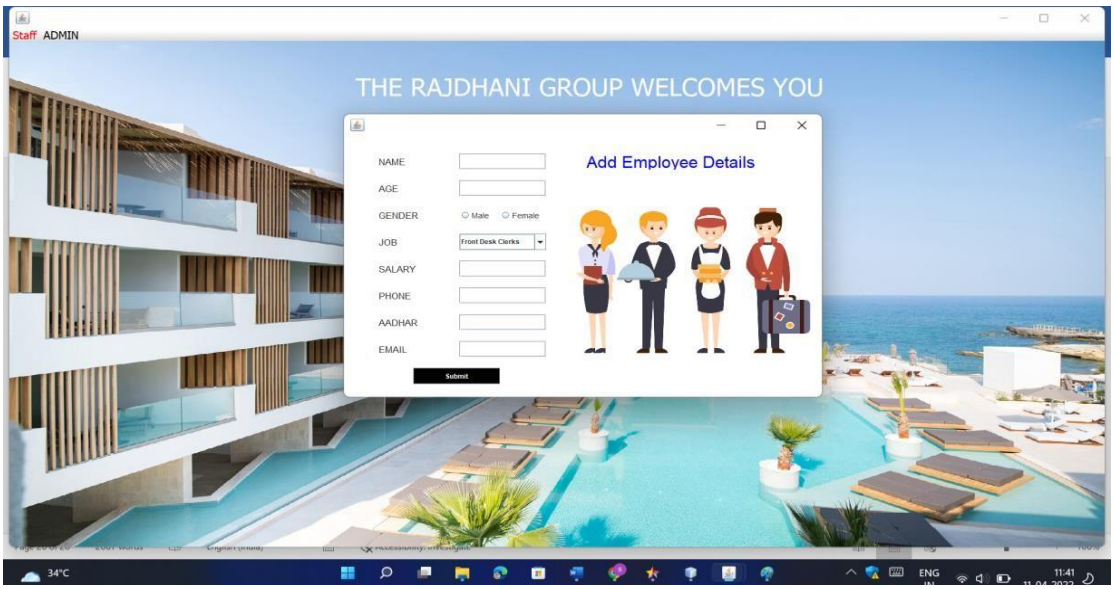




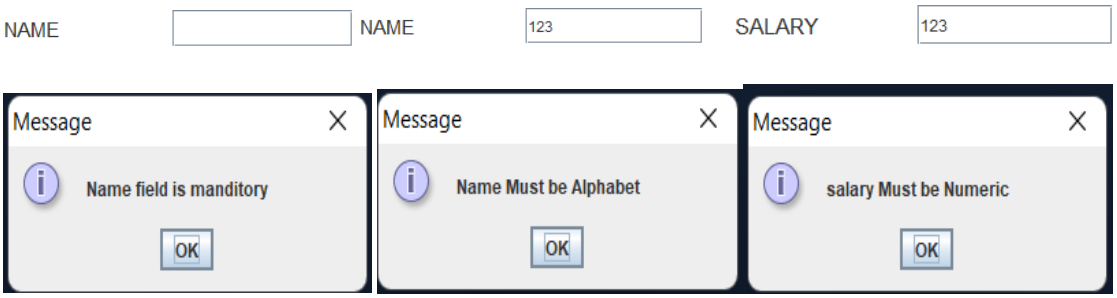
Dash Board Page



Add Employee



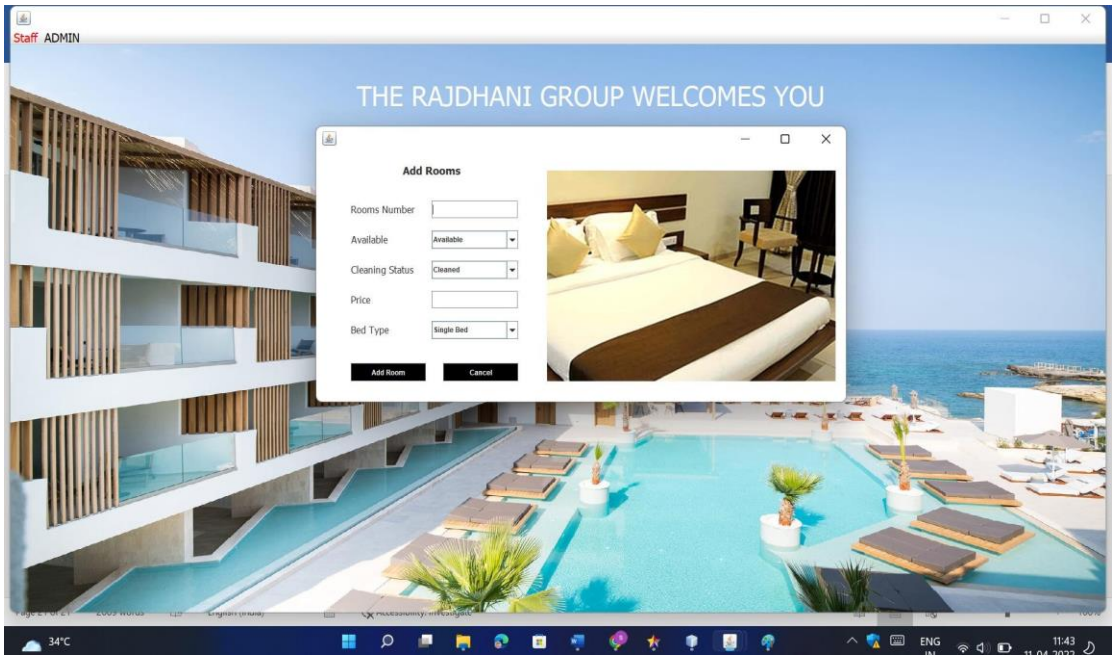
Validation


NAME
NAME
123
SALARY
123
Message
Name field is manditory
OK
Message
Name Must be Alphabet
OK
Message
salary Must be Numeric
OK


AADHAR
12345678901234
PHONE
111111111112
Message
Aadhar number Must be Enter only 12 digits
OK
Message
Phone Number Must be Enter only 10 digits
OK

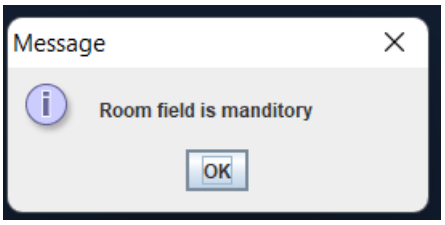
Add Rooms


Staff
ADMIN
ADD EMPLOYEE
ADD ROOMS
ADD DRIVERS

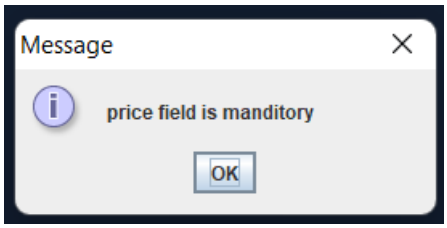

Staff ADMIN
THE RAJDHANI GROUP WELCOMES YOU
Add Rooms
Rooms Number
Available
Available
Cleaning Status
Cleaned
Price
Bed Type
Single Bed
Add Room
Cancel
34°C
ENG

Validation

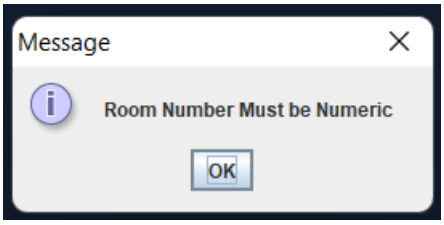
Rooms Number

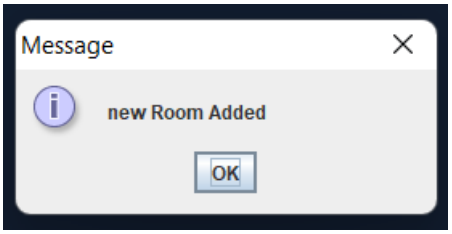


Price



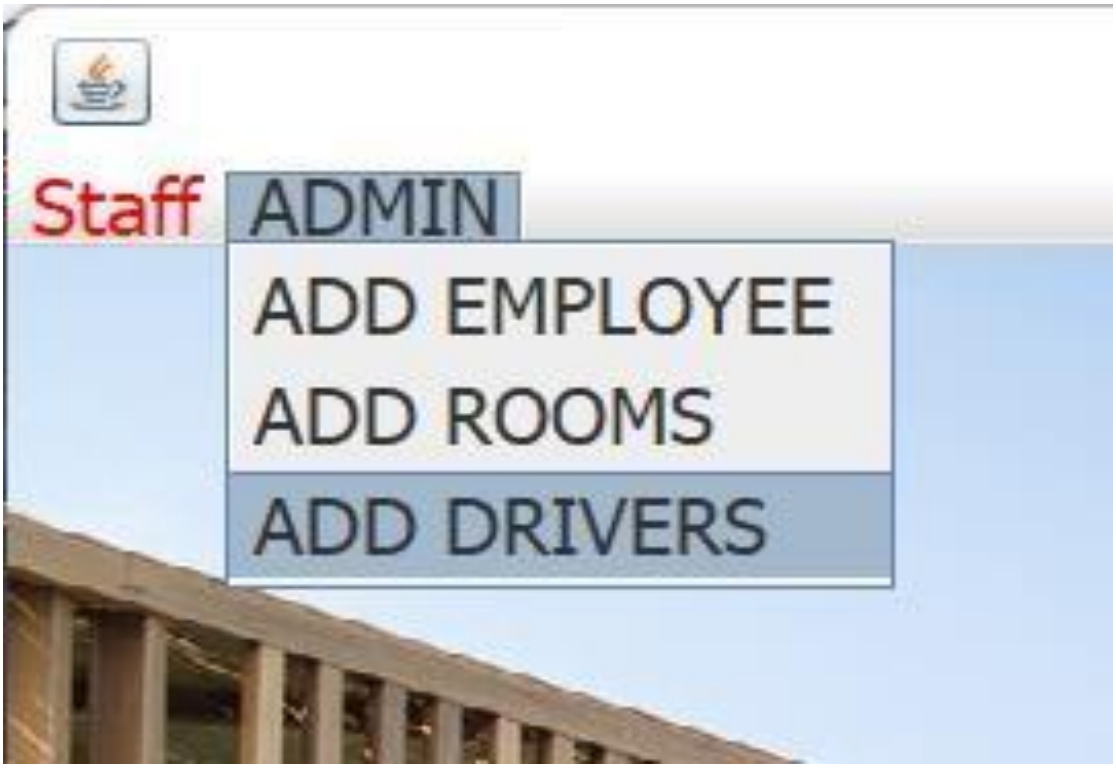
Rooms Number asadasd

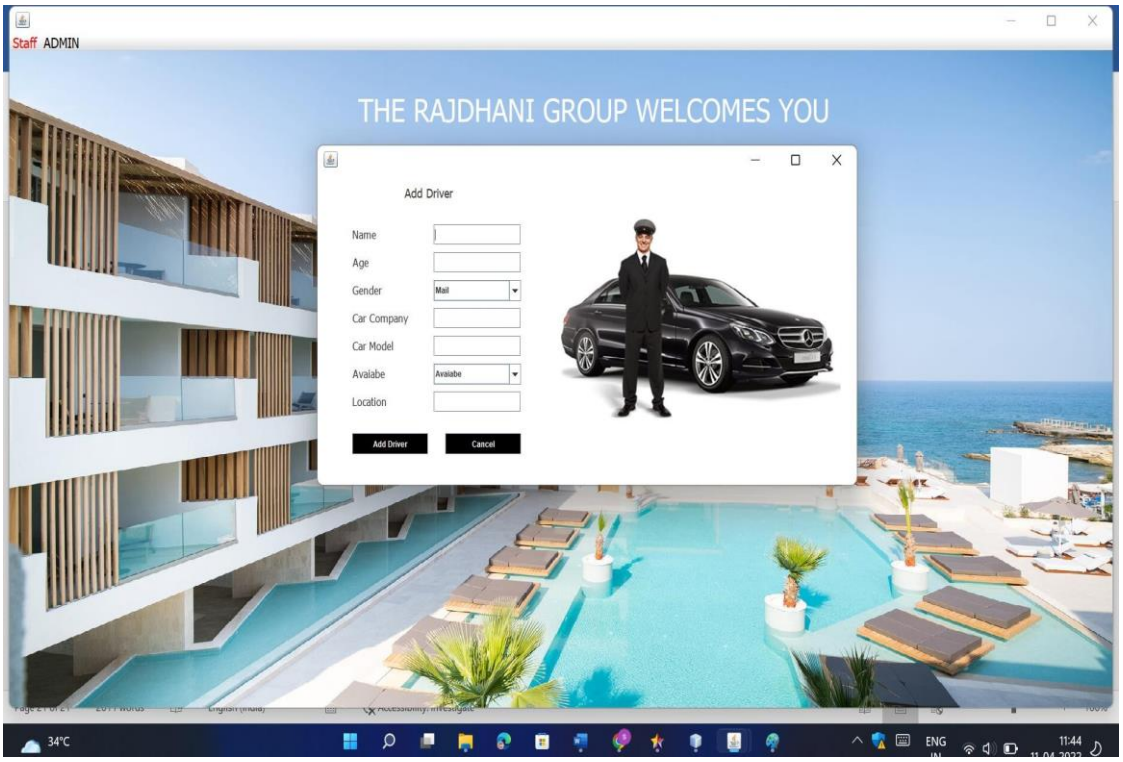




Room Added Successfully

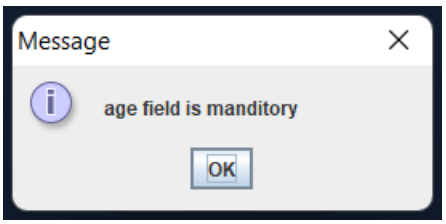
Add Driver


Staff
ADMIN
ADD EMPLOYEE
ADD ROOMS
ADD DRIVERS

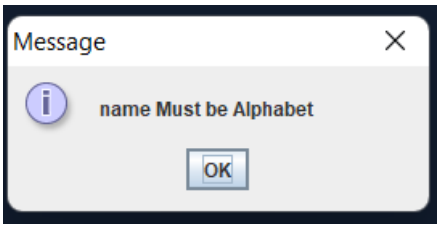

Staff ADMIN
THE RAJDHANI GROUP WELCOMES YOU
Add Driver
Name
Age
Gender
Mail
Car Company
Car Model
Avalabe
Avaiabe
Location
Add Driver
Cancel
34°C
ENG

Validation

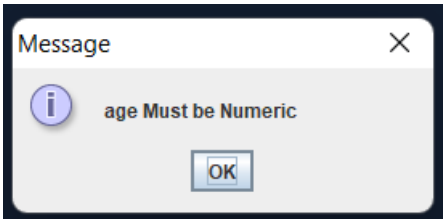
Age



Name 13212

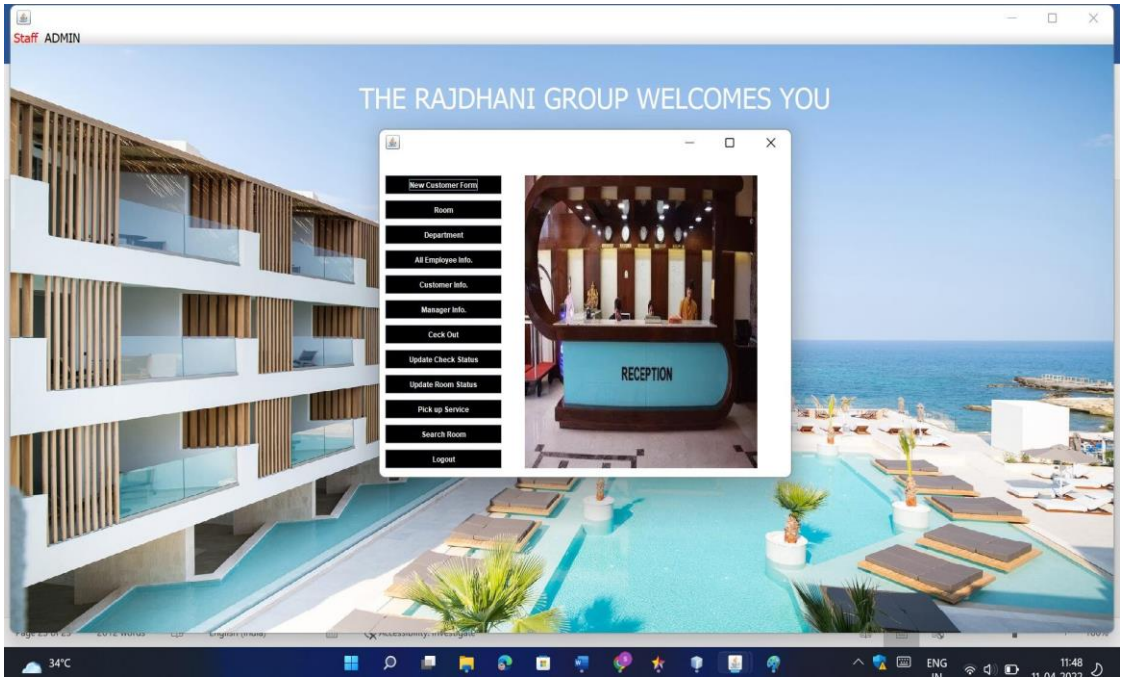


Age dg

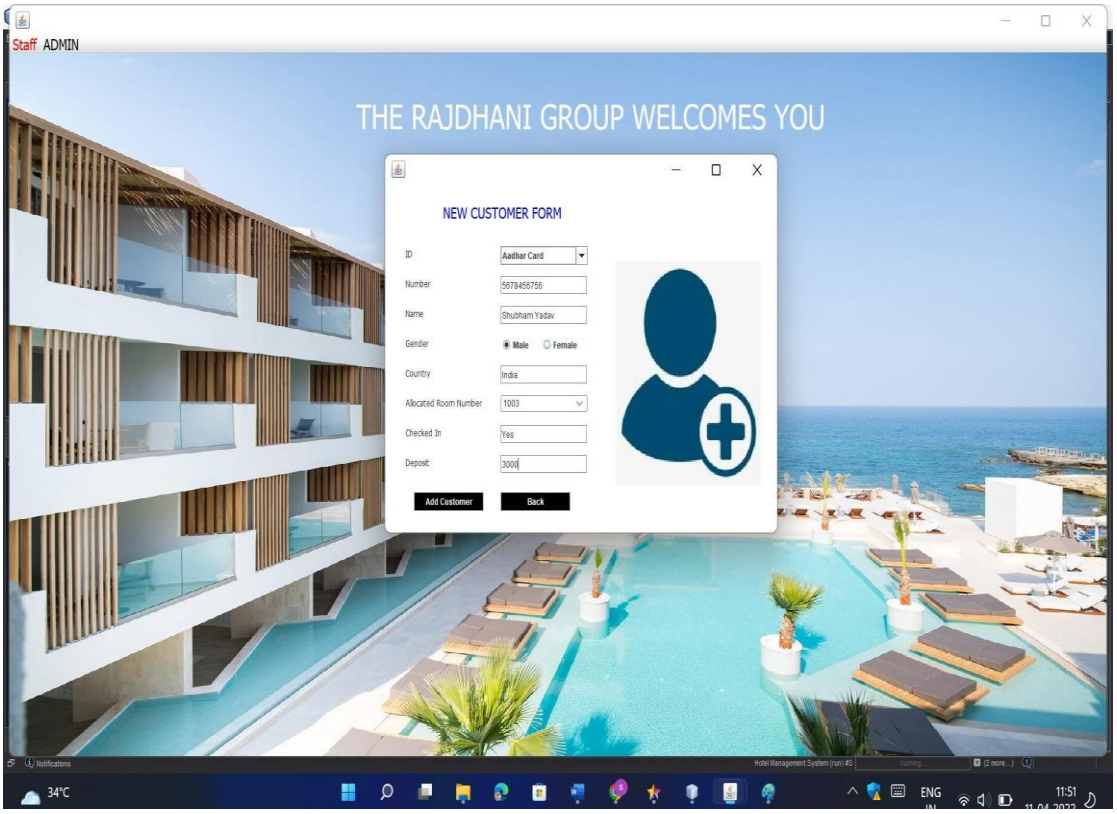


Reception

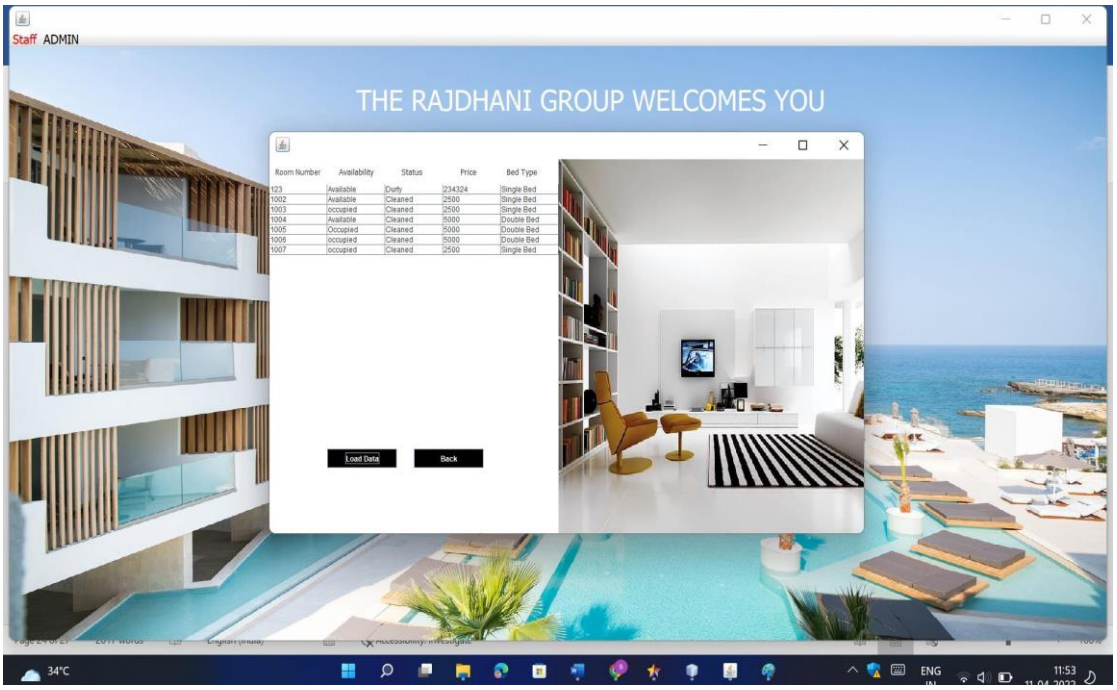

Staff ADMIN
RECEPTION


Staff ADMIN
THE RAJDHANI GROUP WELCOMES YOU
New Customer Form
Room
Department
All Employee Info.
Customer Info.
Manager Info.
Ceck Out
Update Check Status
Update Room Status
Pick up Service
Search Room
Logout
RECEPTION

Add New Customer

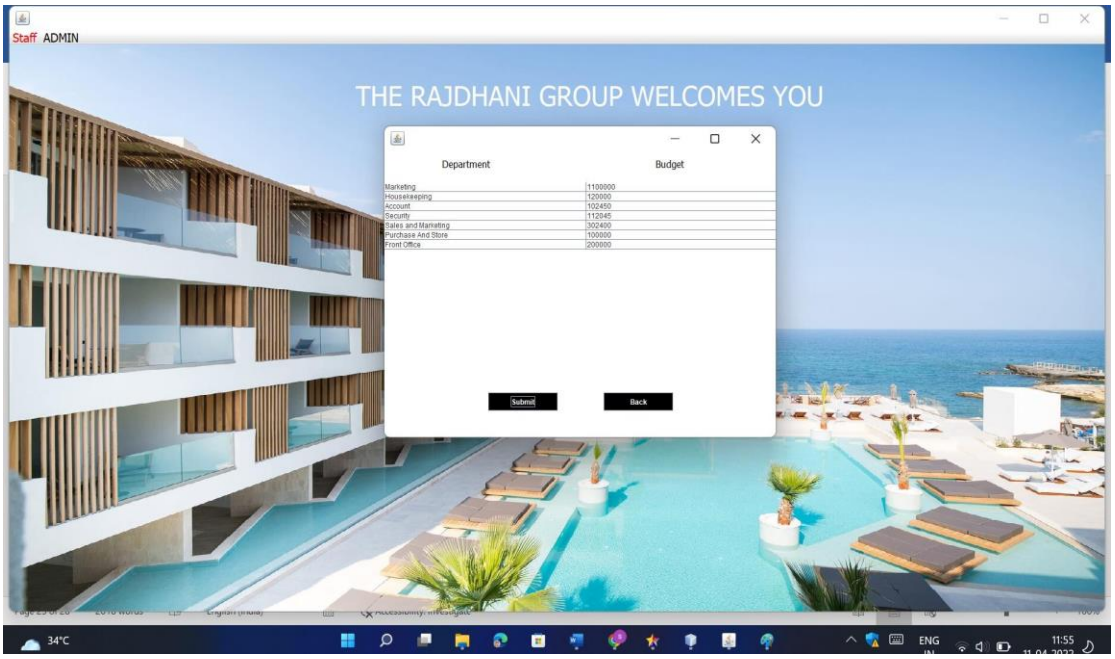


Room Details



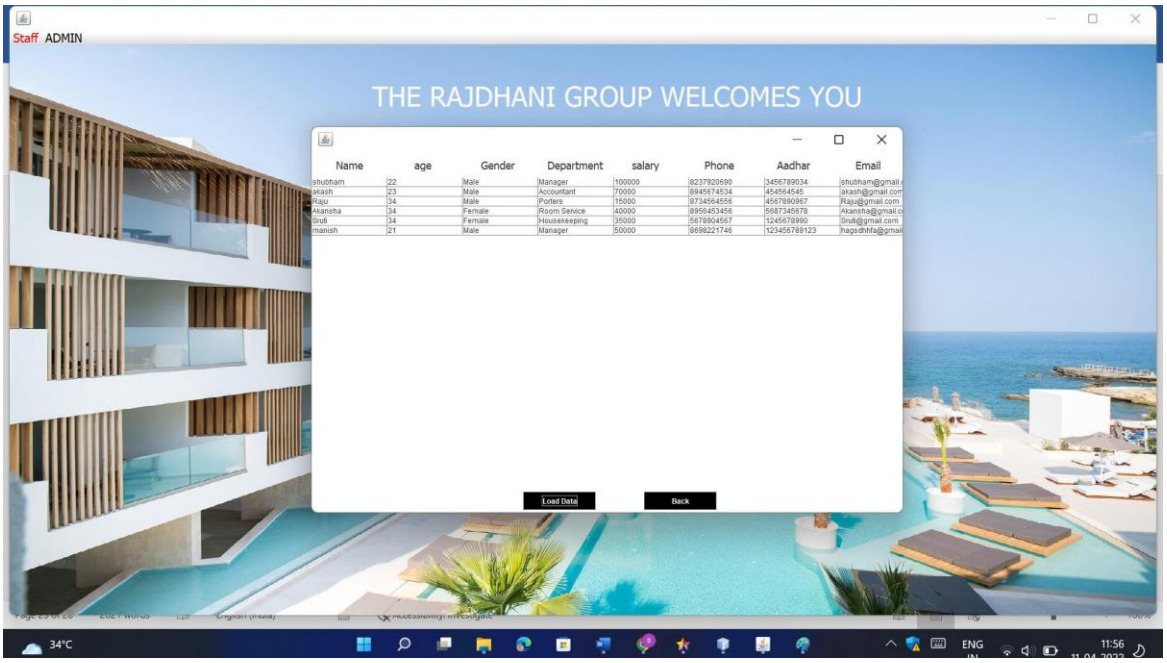
Department


Department


Staff ADMIN
THE RAJDHANI GROUP WELCOMES YOU
Department
Budget
Marketing 1100000
Housekeeping 120000
Account 102450
Security 112045
Sales and Marketing 302400
Purchase And Store 100000
Front Office 200000
Submit
Back
34°C
ENG
11:55

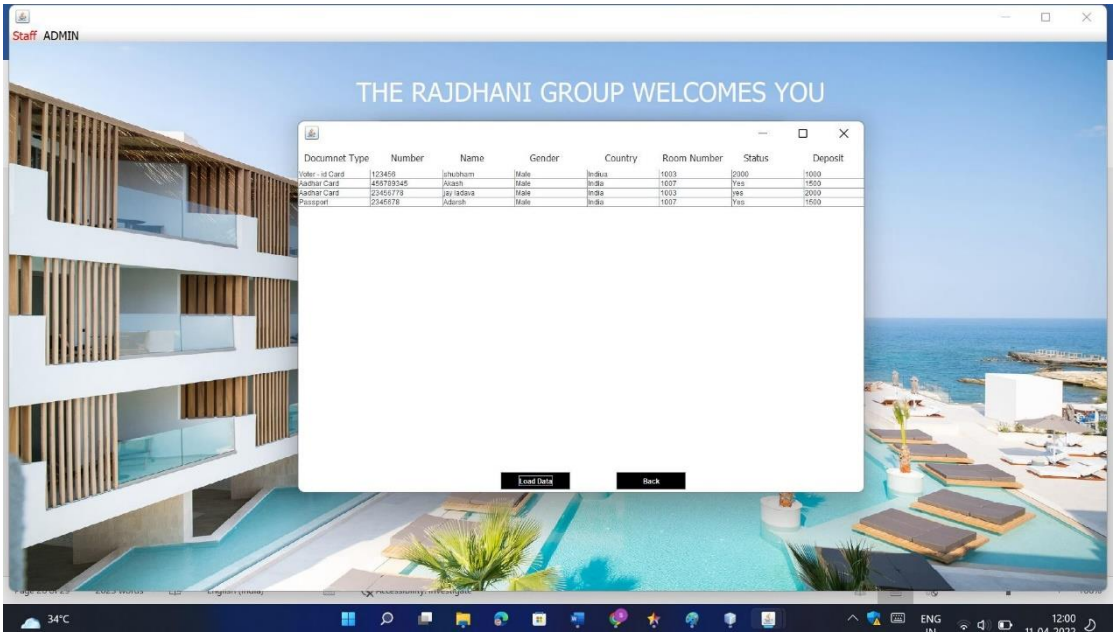
All Employee Info.

All Employee Info.

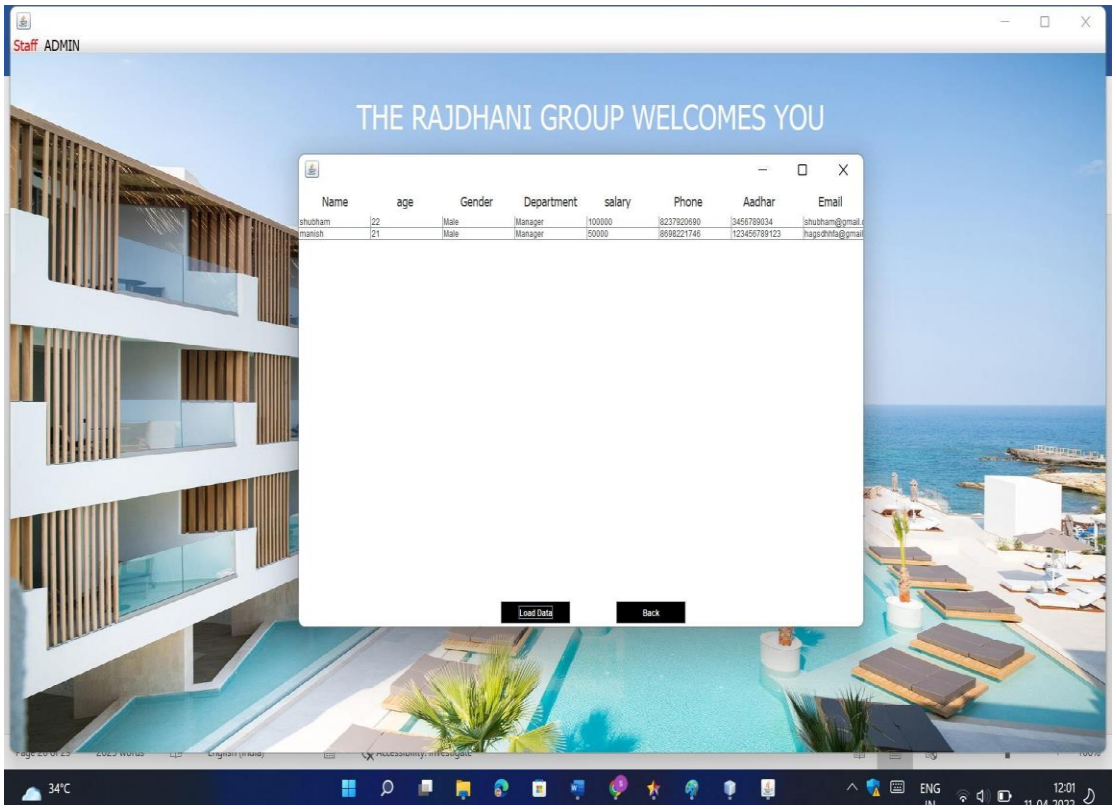


Customer Info

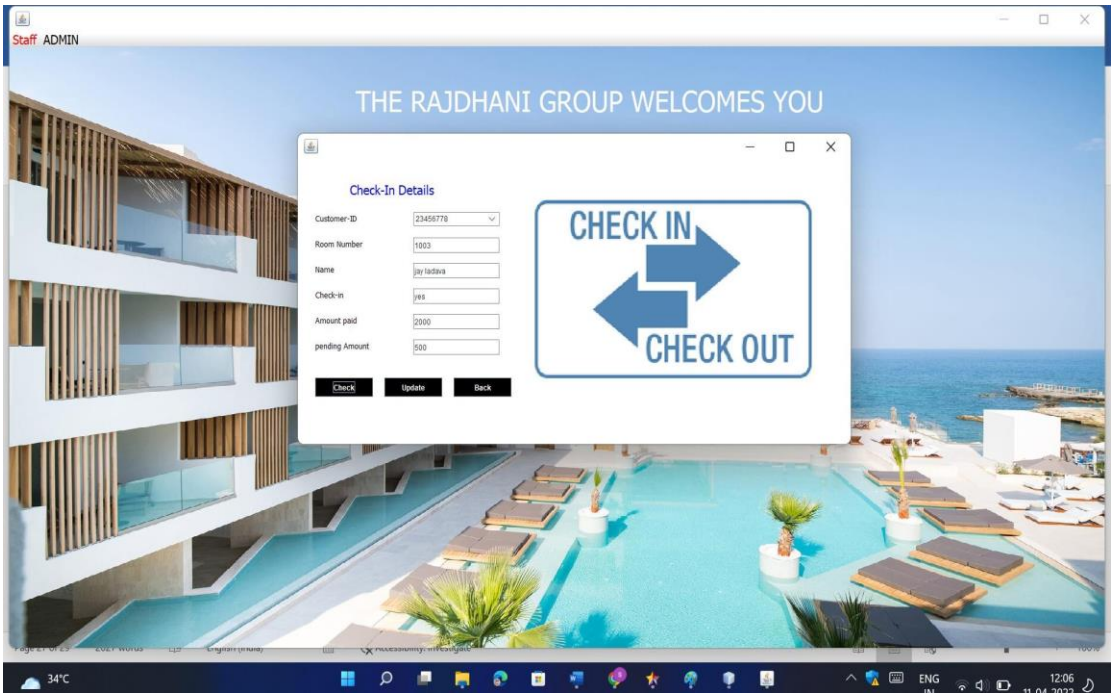
Customer Info.



Manager Info.

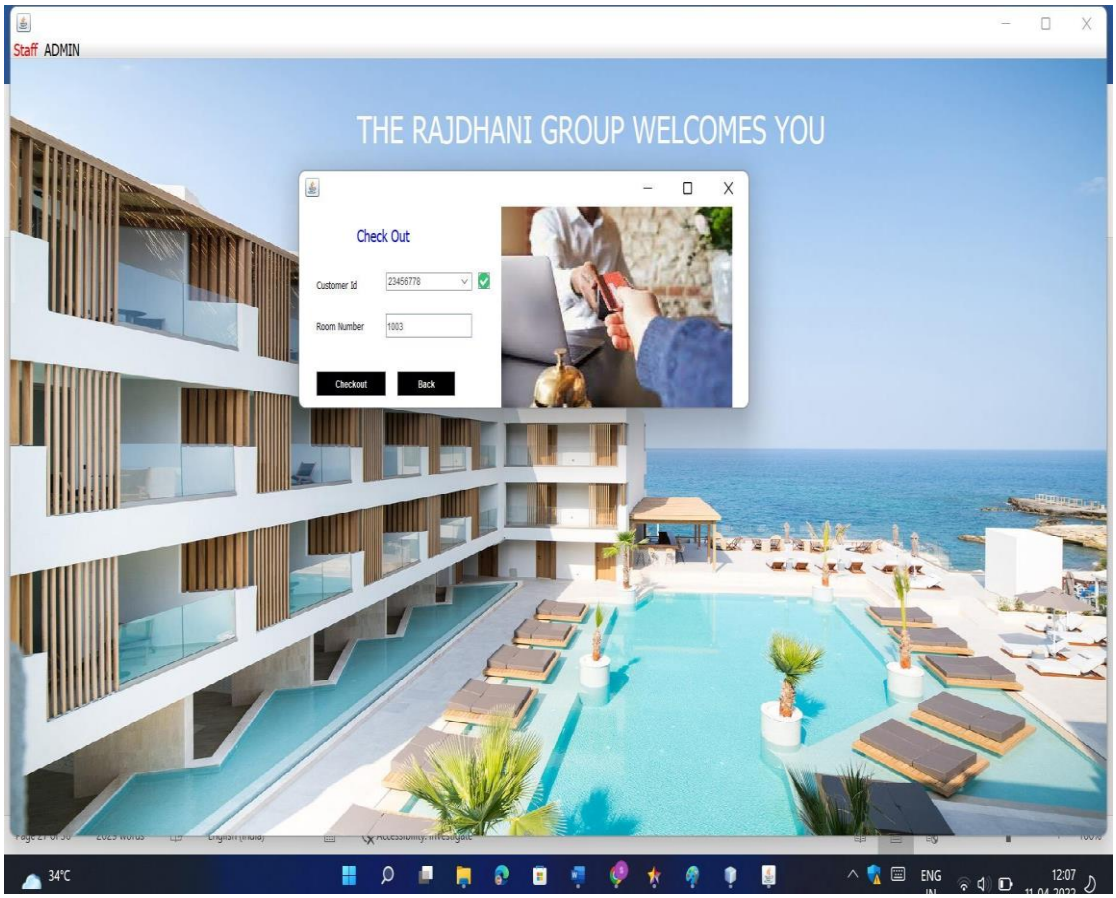


Check-In Details

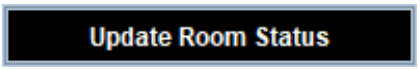


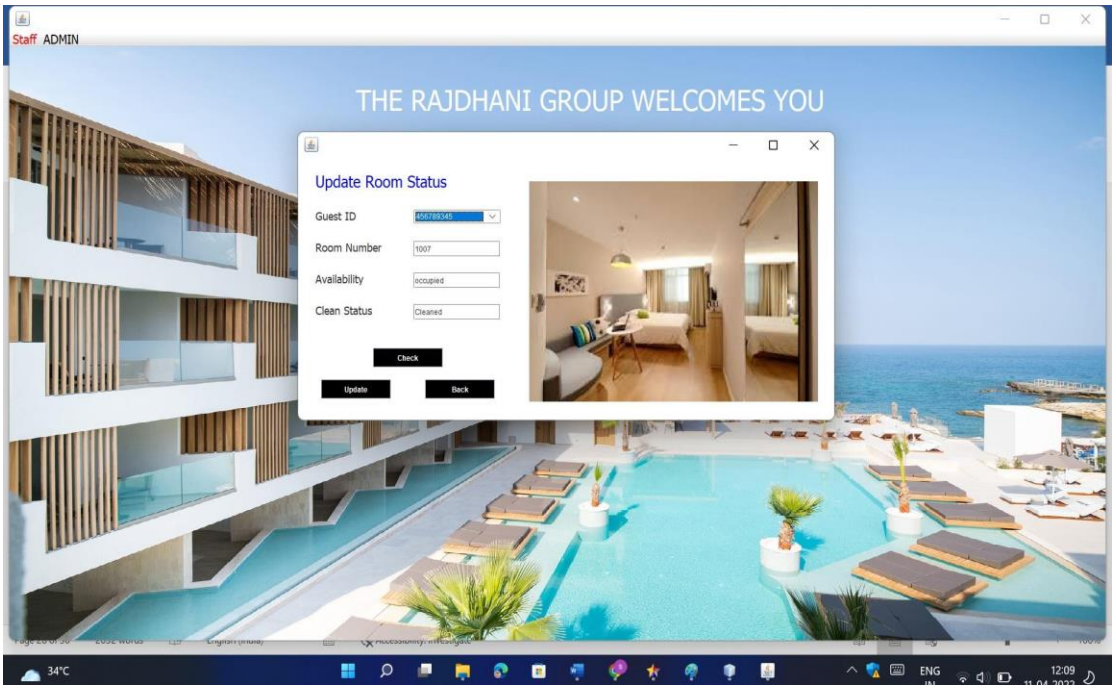
Check-Out Details

Check Out



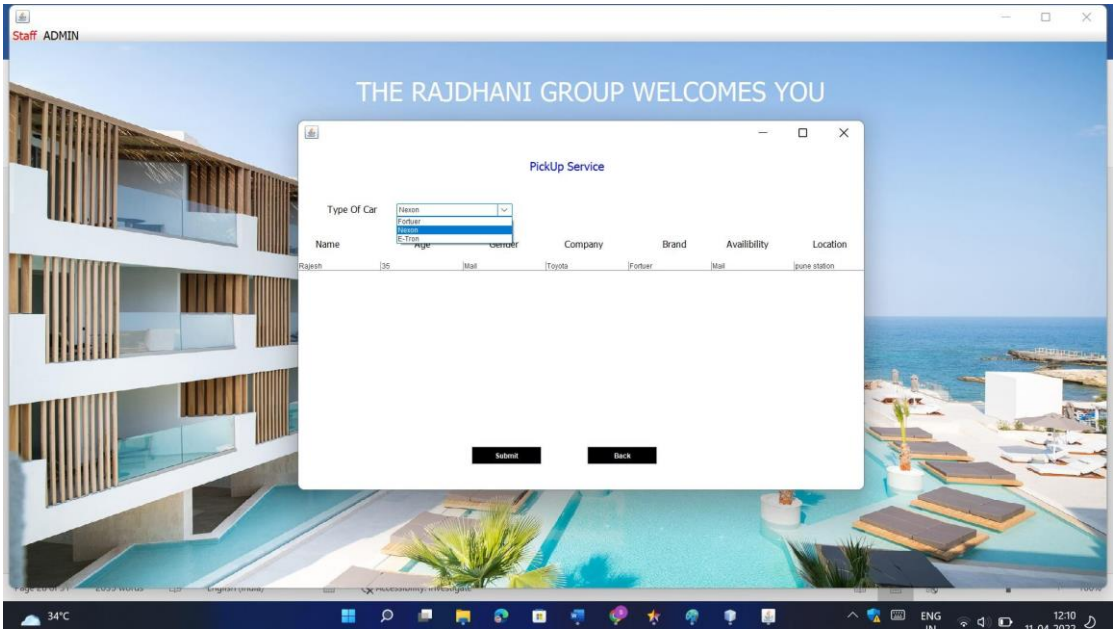
Update Room Status





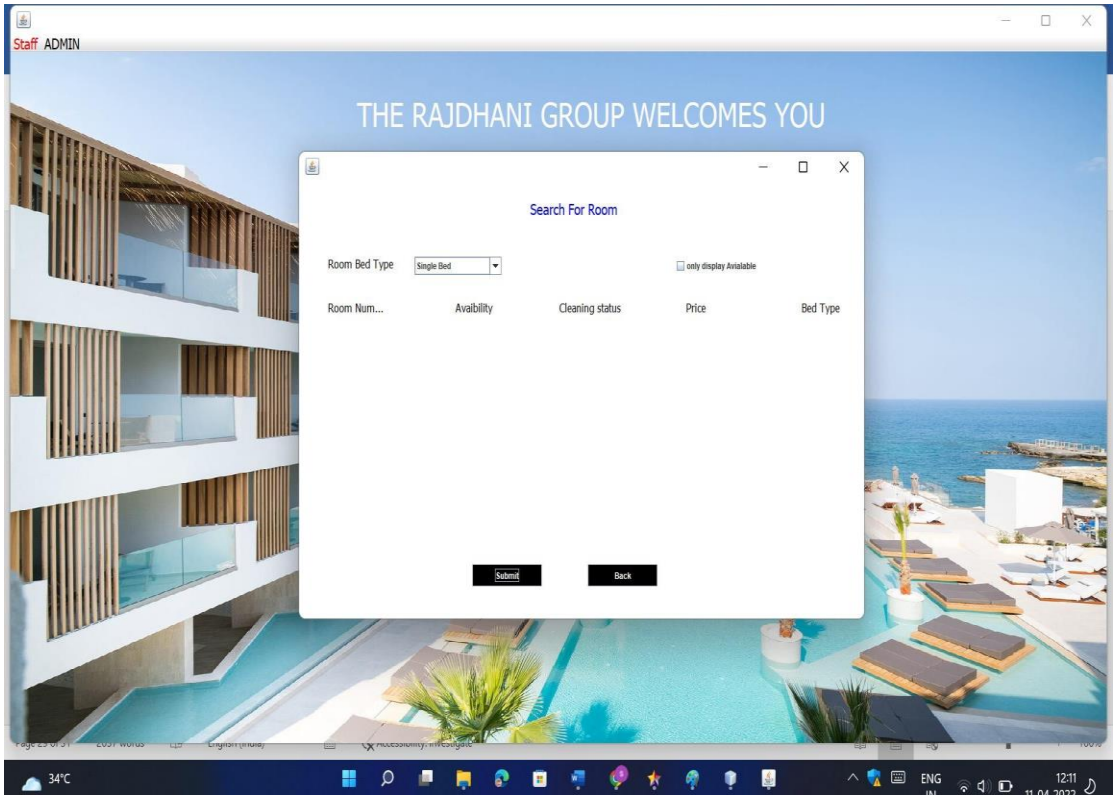
Pick Up Service

Pick up Service



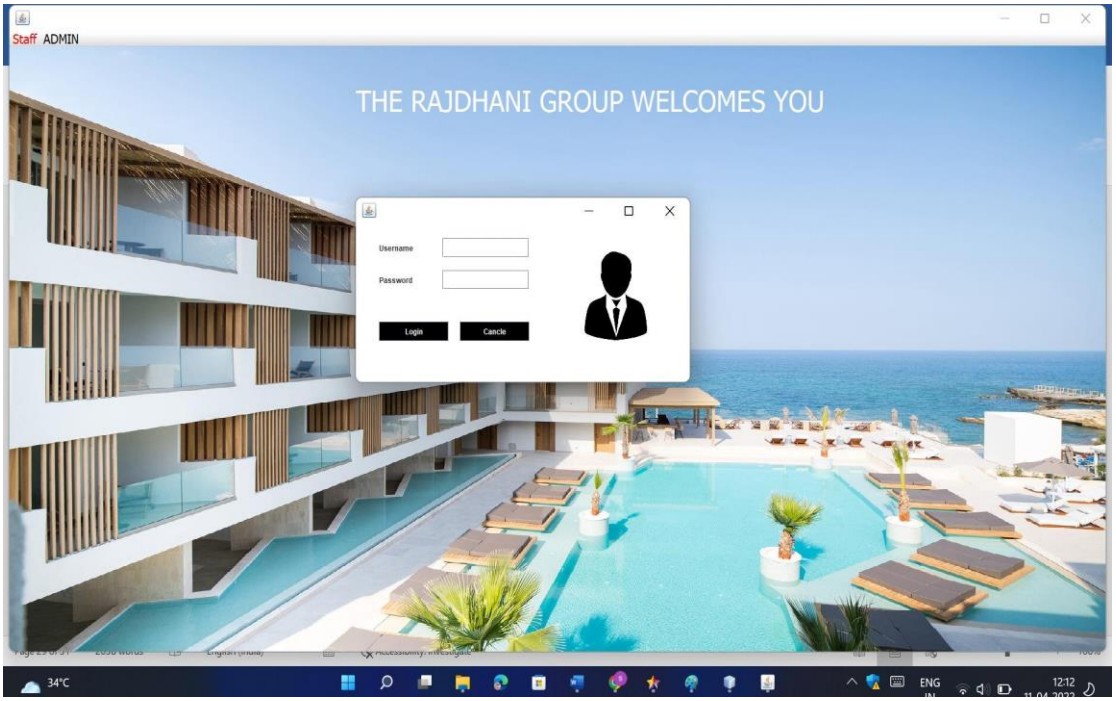
Search Room

Search Room



Logout


Logout


Staff ADMIN
THE RAJDHANI GROUP WELCOMES YOU
Username
Password
Login
Cancle

4.1 Limitations:

The booking process usually requires a customer identity, which the systemcannot detect.

It requires a reliable internet connection

4.2 Future Enhancement:

The world is changing rapidly and so is the meaning of the Rajdhani System. Today hotel is notonly confined to hotels but has gone deep into tourism, catering, clubs, etc. making it a very paying and an exciting career option.

With the rapid growth of the hotel industry pushed forward by foreign and domestic tourism andbusiness travels, the demand for well trained and quality personnel too has gone up high. India isone of the preferred tourist and travel destinations. Approx. 4.4 million tourists visit our country every year. The growth of 20% has been recorded in the tourist and hospitality industry over a few years and more growth is expected in coming years. At present, there are about 200 millionof jobs available in the industry, out of which 20% of the job opportunities are in India.

The Rajdhani Hotel has a lot of enhancement options. In future more features may be addedcategory-wise. It may try to analyze the user behavior and preferences and accordingly suggest. All concepts can be applied to make the Rajdhani Hotel more efficient.

BIBLOGRAP

website: https://www.w3schools.com/css/

https://www.tutorialspoint.com/

Refer Books:

MySQL - For Database

Java - E-balaguruswami

Core Java – by Dr. Nageshwar Raos

UML – By Jason T Roff

Software Project Management – By Bob Hughes, Mike Cotterell

Annexure:

Sample Program Code

Login

```
package hotel.management.system;
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.sql.*;
public class Login extends JFrame implements ActionListener{
    JLabel l1,l2;
    JTextField t1;
    JPasswordField t2;
    JButton b1,b2,b3;
    Login(){
        setUndecorated(true);
        l1 = new JLabel("Username");
        l1.setBounds(40,50,100,30);
        l1.setFont(new Font("Tahoma",Font.PLAIN,20));
        add(l1);
        l2 = new JLabel("Password");
        l2.setBounds(40,100,100,30);
        l1.setFont(new Font("Tahoma",Font.PLAIN,20));
        add(l2);
        t1 = new JTextField();
        t1.setBounds(150,50,150,30);
        t1.setFont(new Font("Tahoma",Font.PLAIN,20));
        add(t1);
        t2 = new JPasswordField();
        t2.setBounds(150,100,150,30);
        l2.setFont(new Font("Tahoma",Font.PLAIN,20));
        add(t2);
```

```
b1 = new JButton("Login");
b1.setBackground(Color.BLACK);
b1.setForeground(Color.WHITE);
b1.setBounds(40,170,120,30);
b1.setFont(new Font("Tahoma",Font.PLAIN,16));
b1.addActionListener(this);
add(b1);
b2 = new JButton("Cancel");
b2.setBackground(Color.BLACK);
b2.setForeground(Color.WHITE);
b2.setBounds(180,170,120,30);
b2.setFont(new Font("Tahoma",Font.PLAIN,16));
b2.addActionListener(this);
add(b2);
b3 = new JButton("regitration");
b3.setBackground(Color.BLACK);
b3.setForeground(Color.WHITE);
b3.setBounds(110,220,120,30);
b3.setFont(new Font("Tahoma",Font.PLAIN,16));
b3.addActionListener(this);
add(b3);
ImageIcon i1 =new ImageIcon(ClassLoader.getSystemResource("hotel/management/system/icons/second.jpg"));
Image i2 = i1.getImage().getScaledInstance(200,200, Image.SCALE_DEFAULT);
ImageIcon i3 = new ImageIcon(i2);
JLabel l3 = new JLabel(i3);
l3.setBounds(310,10,200,200);
add(l3);
getContentPane().setBackground(Color.WHITE);
setLayout(null);
setBounds(600,300,540,260);
setVisible(true);
```

```
    }
     public void actionPerformed(ActionEvent ae){
        if(ae.getSource()==b2){
         System.exit(0);
       }
       if(ae.getSource()==b1){
          String username = t1.getText();
          String password = t2.getText();
          String firstname = t2.getText();
          String lastname = t2.getText();
          if(username.isEmpty()){
          JOptionPane.showMessageDialog(null,"username field is manditory");
          }
          if(password.isEmpty()){
          JOptionPane.showMessageDialog(null,"password field is manditory");
          }
          conn c = new conn();
          String str = "select * from registration where username = '"+username+"' and
password = '"+password+"'";
          try{
              ResultSet rs = c.s.executeQuery(str);
              if(rs.next()){
                 new Dashboard().setVisible(true);
                 this.setVisible(false);
              }else{
                 JOptionPane.showMessageDialog(null,"Invalid username and password
");} } }
       else if(ae.getSource()==b3){
          new registration().setVisible(true);
       }
    public static void main(String[] args){
       new Login();
    }}
```