

# Hotel Management System



## Group Members

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## **ABSTRACT:**

In my project “**Hotel Management System**” we 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 solution for hotel to manage most there work using a computerized process. This software application will help admin to handle customer information, room allocation details, Payment details etc.

The rooms have different categories like single bed, double bed etc. so their charges and records will 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 username and Password.

1. Room status
2. New Room inauguration
3. Allocated Room Modification
4. Details for the Customer Check in and check out
5. 5. New Customer Admission
6. Allocation of Room as per the Customer Interest
7. Statement and Transactions of the Customer
8. Total Customers Present in The Hotel
9. Separate Customer Report.

Keywords:

Database Connectivity, SSN, Java Server pages, swings, Event Handling, JDBC, inheritance, access specifier.

## **Functional Requirements of the System: -**

1. Reservation/Booking
  - record reservations
  - record the customer's first name and last name
  - record the number of occupants
  - record the room number
  - display the default room rate
  - record the customer's phone number
  - The system shall check-in customers
  
  - The system shall record the expected checkout date and time
  - The system shall checkout customers
  - The system shall record customer feedback

## 2. Management

- display the hotel occupancy for a specified period of time (days, including past, present, and future dates).
- display room revenue for a specified period (days).
- display food revenue for a specified period (days).
- allow for the addition of information, regarding rooms, rates, menu items, prices, and user profiles
- allow for the deletion of information, regarding rooms, rates, menu items, prices, and user profiles
- allow for the modification of information, regarding rooms, rates, menu items, prices, and user profiles
- allow managers to assign user passwords

### Use cases:

The use cases of the following system are:

- Search Availability
- Room Booking
- Check-in/Check-out
- Customer details
- Room cleaning service
- Employee details

### Actors:

1. **Customer:** - Any person who has registered with the system using a valid email id and password or phone number.
2. **Receptionist:** - That Person who acts as the facilitator for services (reservation, check-in etc.) of each user.
3. **Chef:** - That Person Who deals with the food services, design menu etc.,
4. **Room Keeping:** - That person who deals with the maintenance and room services

### Use Case Description:

- **Sign in:**

Use case ID	Login
Brief Description	The Admin can get access to the system using username and password.
Primary actors	Admin
Precondition	Admin already requires credentials to login.
Postcondition	If the credentials are correct, they can get access.
Main success Scenario	Admin can get access.
Actor Action	System response
1.The admin enters login credentials and clicks on the login button.	2. Performs validation of login credentials. If a valid user, provides access.
3.After getting access admin can add employees,add rooms,add food.	4.checks the database
Alternate flow	2.a. If not a valid admin, cannot go through further process.

- **Manage Employee:**

Use case ID	Add Employee
Brief Description	The admin can get access to the system using username and password.
Primary actors	Admin
Preconditions	Admin already contains the required credentials to login.
Post condition	admin updates the database.
Main success Scenario	Admin can add employees.
Actor Action	system response
1.The admin enters login credentials and clicks on the login button.	2.Performs validation of login credentials. If a valid user,provides access.
3.after getting access admin can add or remove employees	4.checks add employees in the database.

Alternate Flow	2a.If not a valid admin, cannot go through further process
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● **Manage Room:**

Use case ID	Add Room
Brief Description	The admin can get access to the system using username and password.
Primary actors	Admin
Preconditions	Admin already contains the required credentials to login.
Post condition	admin updates the database.
Main success Scenario	Admin can add room.
Actor Action	system response
1.The admin enters login credentials and clicks on the login button.	2.Performs validation of login credentials. If a valid user,provides access.
3.after getting access admin can add or remove rooms.	4.checks add room in the database.
Alternate Flow	2a.If not a valid admin, cannot go through further process

● **Foods Services:**

Use case ID	Add Foods
Brief Description	The admin can get access to the system using username and password.
Primary actors	Admin
Preconditions	Admin already contains the required credentials to login.
Post condition	admin updates the database.
Main success Scenario	Admin can add Foods.
Actor Action	system response
1.The admin enters login credentials and clicks on the login button.	2.Performs validation of login credentials. If a valid user,provides access.

3.after getting access admin can add or remove rooms.	4.checks add room in the database.
Alternate Flow	2a.If not a valid admin, cannot go through further process

● **Manage Department:**

Use case ID	Department
Brief Description	Department contains Front office , housekeeping food beverage ,kitchen and food production, maintenance, account , security,he department,sales and marketing, purchase and store.
Primary actors	Admin
Preconditions	admin updates the status of the department.
Post condition	admin updates the database.
Main success Scenario	Admin can add budget in the department.
Actor Action	system response.
1.The admin enters login credentials and clicks on the login button.	2. Admin enters into reception and directs the department.
3.Department enlist the details of budget.	

- **Add Customer:**

Use case ID	Add Customer
Brief Description	Customers must be provided with an Id, number,name,gender,country,allocated roll number ,checked-in,deposit to fill the form.
Primary actors	Manager.
Preconditions	Customers should not be registered before.
Post condition	Customer need enter the valid details
Main success Scenario	Customers will be registered.
Actor Action	system response
1) Manager must check whether customer is register or not .if not	2) The manager fills the customer details.
3) customer register the form	

- **Check-in:**

Use case ID	check-in
Brief Description	Customer needs to check-in the hotel.
Primary actors	Manager
Preconditions	customers need to register.
Post condition	None
Main success Scenario	customers can get the room by check-in.
Actor Action	system response
1) Customers need to register	2) Receptionist allotted the room for the customer.

- **Check-out :**

Use case ID	Check-out
Brief Description	Customer needs to check-out from
Primary actors	Manager
Preconditions	customer need to check-in the hotel
Post condition	the customer needs to pay the room bill.
Main success Scenario	Customer needs to check-out.
Actor Action	system response.
1) Customers need to inform the Receptionist.	2) Customers need to pay the room bill before check-out.

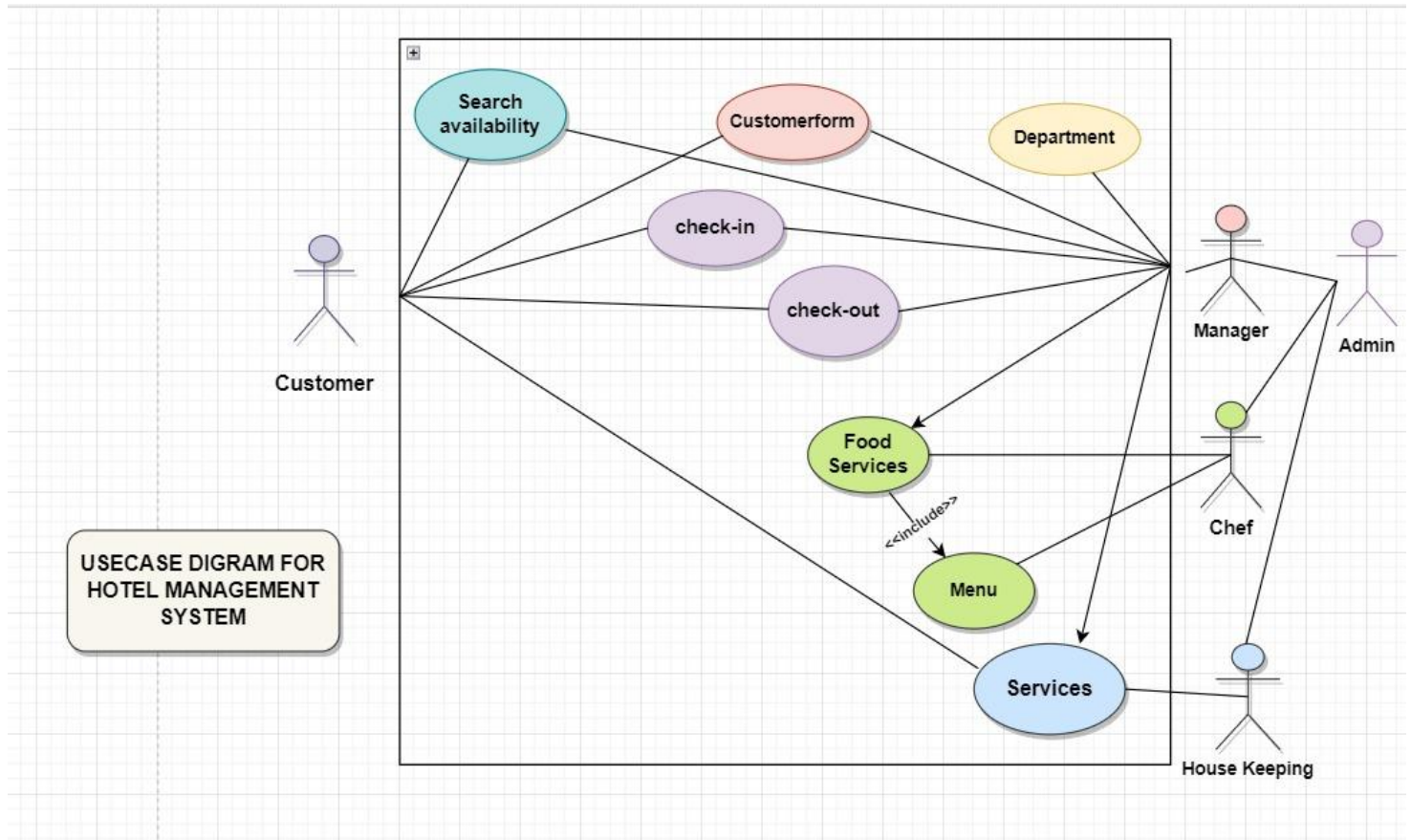
- **Search Availability:**

Use case ID	Search Availability
Brief Description	Check the availability of rooms.
Primary actors	Manager.
Preconditions	The manager needs to check the availability of the room.
Post condition	Manager allots the room for the customer.
Main success Scenario	The manager needs to check available rooms and allot them to the customer.
Actor Action	System response.
1) The manager needs to check the available rooms	2) Then allotted the available room to the customer.



## Use case Diagram:

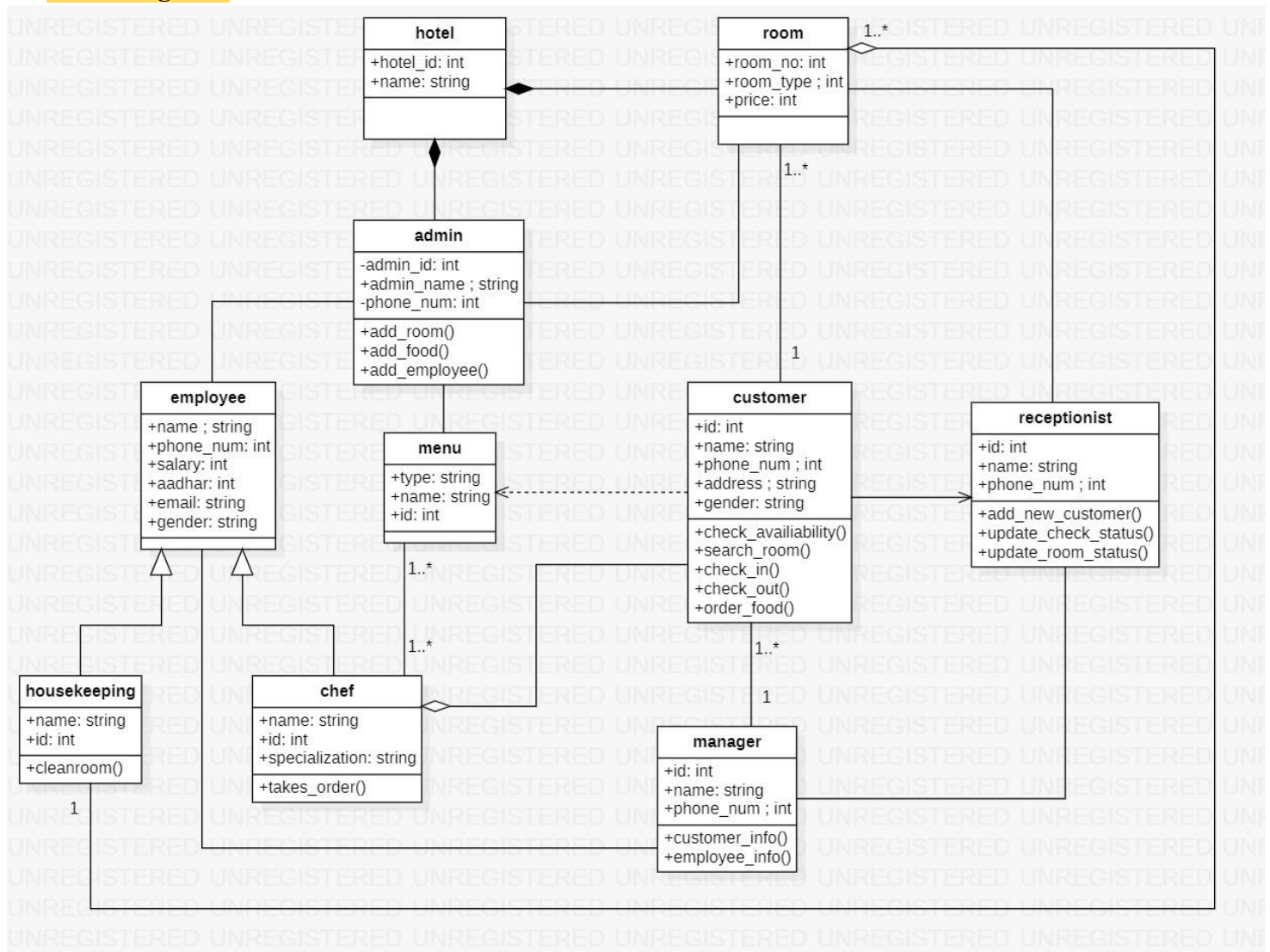
Designed using [Draw.io](https://draw.io)



## Link:

[Hotel Management System.drawio](https://draw.io) - Google Drive

## Class Diagram:



## Requirements:

- NetBeans
  - MySQL
  - Jar files for JDBC connectivity
  - JDK
- Back End Tool-MySQL 8.0 command line client

## User-interface Design:

The User interface required to be developed for the system should be user friendly and attractive.

There are two sets of java APIs for graphics programming:

AWT (Abstract Windowing Toolkit) and Swing.

- AWT API was introduced in JDK 1.0. Most of the AWT components have become obsolete and should be replaced by newer Swing components.
- Swing API, a much more comprehensive set of graphics libraries that enhances the AWT, was introduced as part of Java Foundation Classes (JFC) after the release of JDK 1.1. JFC consists of Swing, Java2D, Accessibility, Internationalization, and Pluggable Look-and-Feel

Here are a Screenshots of the UI tabs from the planned project:

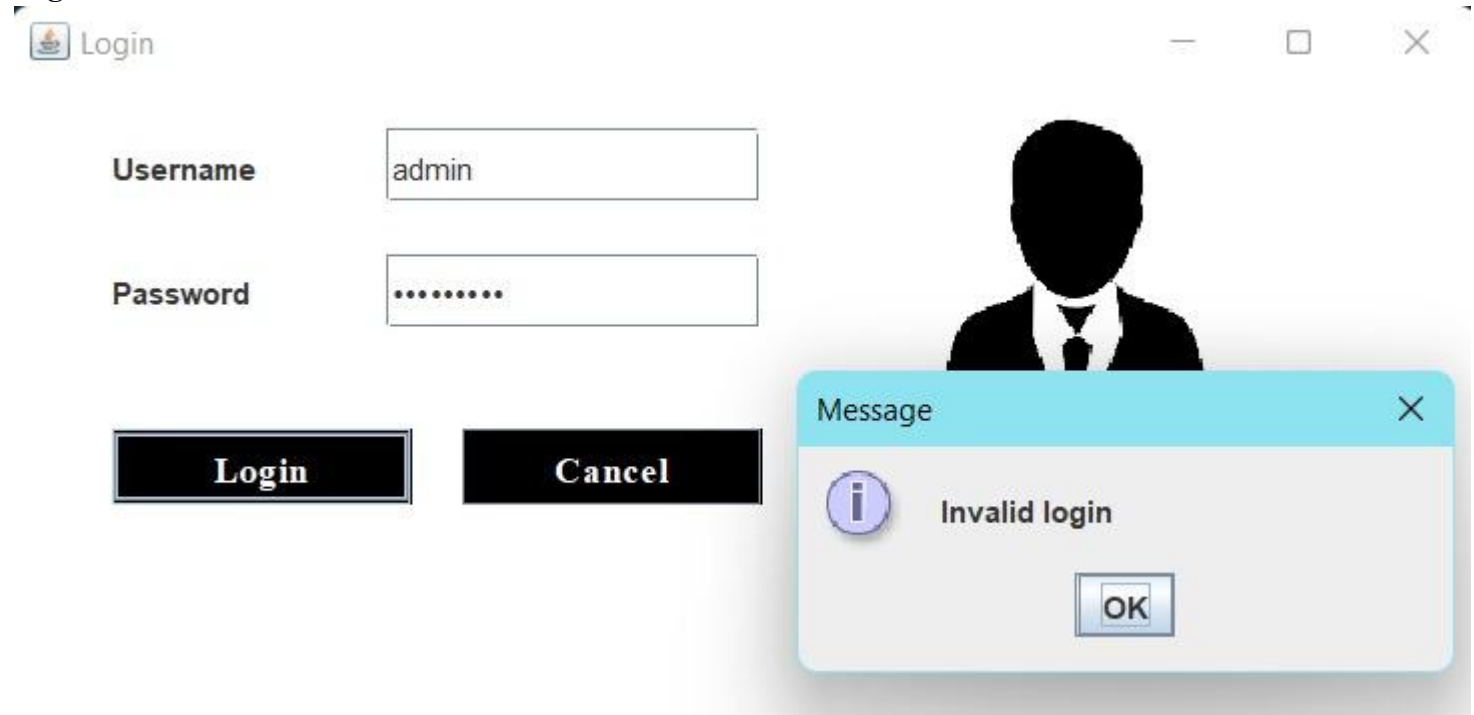
### Intro Panel:



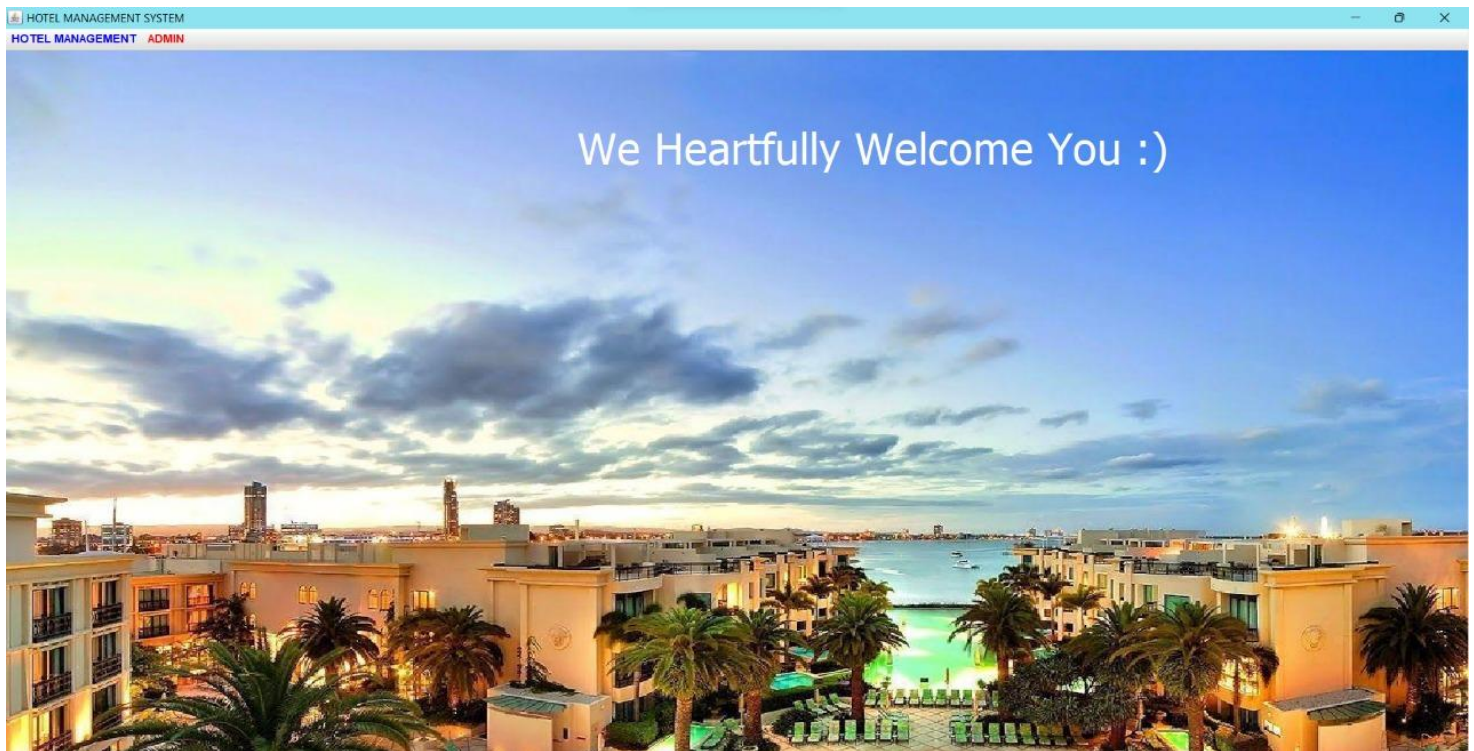
### Login:

A screenshot of a Java Swing window titled "Login". The window has a light blue header bar with standard window controls (minimize, maximize, close) on the right. The main content area is white and contains a login form. On the left, the labels "Username" and "Password" are in a bold, black, sans-serif font. To the right of "Username" is a text input field containing the text "admin". To the right of "Password" is a text input field containing five dots, indicating a password. Below the input fields are two black buttons with white text: "Login" and "Cancel". To the right of the login form is a large black silhouette of a person wearing a suit and tie.

**Login with invalid credentials:**



**Dashboard:**





**Admin can handle:**



**Add employee Details:**

A screenshot of a web application window titled 'ADD EMPLOYEE DETAILS'. The window contains a form with the following fields: NAME, AGE, GENDER (with radio buttons for MALE and FEMA...), JOB (with a dropdown menu), SALARY, PHONE, AADHAR, and EMAIL. To the right of the form, there is a large illustration of four hotel staff members: a female clerk, a male porter, a female housekeeper, and a male manager. Below the form, there is a 'SAVE' button.

## Add Rooms:

### Add Rooms

**Room Num...**

**Availability**

Available

**Cleaning St...**

Available


Occupied

**Price**

**Bed Type**

Single Bed

**Add** **Back**



## Add Food:

### Add Food

**orderno**

**Cusine**

**Type**

Veg

**starters**

**Maincourse**

**Dessert**

icecreams

**Price/-**


**Add** **Back**



## Reception:



## New Customer info:


 — □ ×

### NEW CUSTOMER FORM

ID :	<div>Passport ▼</div>
Number :	<input type="text"/>
Name :	<input type="text"/>
Gender :	<input type="radio"/> Male <input type="radio"/> Female
Country :	<input type="text"/>
Allocated Room Number :	<div>101 ▼</div>
Checked-In :	<input type="text"/>
Deposit :	<input type="text"/>

Add

Back






Room:

Room Number	Availability	Clean Status	Price	Bed Type
101	Occupied	Cleaned	2000	Single Bed
102	Occupied	Cleaned	4000	Double Bed
103	Available	Dirty	3000	Single Bed
104	Occupied	Cleaned	5000	Double Bed
105	Occupied	Cleaned	5000	Double Bed
201	Occupied	Dirty	5000	Double Bed
202	Occupied	Cleaned	3500	Double Bed
203	Occupied	Cleaned	3400	Single Bed
204	Occupied	Dirty	2600	Single Bed
205	Occupied	Cleaned	4200	Double Bed

Load Data

Back



**Department(Planned Budget):**

Department	Budget
frontoffice	2000000
Housekeeping	120000
FoodBeverage	2500000
Kitchen and Food production	700000
Maintenance	15000000
Accounts	102456
Security	1122780
HR Department	100000
sales and marketing	2830000
purchase and store	1310000

## All Employee info:

Name	Age	Gender	Job	Salary	Phone	Aadhar	Gmail
Harshini	25	female	Manager	100000	0192837465	1234 8765 1923	harshu@gmail.com
Tokyo	34	female	Porters	100000	9492978945	123 6754 90876	moneyhiest123@gmai.
jahnavi	24	female	Accountant	80000	9213456789	1234 4321 2341	jaan123@gmail.com
proffesor	23	male	Housekeeping	97000	124356409	1234 8765 4567	improf@gmail.com
Bharath	25	male	Manager	100000	1234567890	1234 5678 9022	Bharat@gmail.com
		null	Front Desk Clerks				
kumari	21	female	Front Desk Clerks	21000	9123456780	1004 2345 6789	kumari21f@gmail.com
Gajala	36	male	Porters	30000	9080706050	1029 3487 6545	sonicsolutions@gmail...
Battu	42	male	Waiter/Waitress	10000	9182734560	1234 4321 5672	battuchandu@gmail.c...
KillBillPandey	30	female	Accountant	80000	9123476509	1023 4321 4567	killbill123@gmail.com
Lavangam	34	male	Housekeeping	35000	9080765321	1234 0987 5647	hosahosaho@gmail.c...
Gachibowli Diwakar	27	male	Front Desk Clerks	40000	9123456789	1234 0987 4561	diwakar12@gmail.com
Padmanabha simha	30	male	Waiter/Waitress	45000	9121314151	1233 3213 4321	imbaadshah@gmail.c...
chandramukhi	24	female	Manager	90000	9080706543	1235 4567 7890	chandra1@gmail.com

Load Data

Back

**Customer info:**

ID	Number	Name	Gender	Country	Room	Check-in Status	Deposit
Passport			null		101		
Passport			null		101		
Passport	101	Sushma Chowdary	Female	South korea	102	yes	1500
Aadhar Card	1002	Jayasree	Female	India	103	yes	1000
Voter Id	1003	Jasmine	Female	Uzbekistan	104	no	0
Passport	1004	peter Kavinsky	Male	USA	101	yes	4000
Passport	1005	Lara Jean	Female	South Korea	105	Yes	2500
Aadhar Card	2001	Sree Divya	Female	china	201	no	1000
Passport	2002	Ajay Kumar	Male	Pakistan	202	yes	1001
Passport	2003	Sree Samyesh	Male	Phillipines	203	no	0
Aadhar Card	2004	Nagaraju	Male	India	204	yes	1700
Passport	2005	Harshita	Female	Japan	205	yes	420

Load Data

Back


**Manager info:**

Name	Age	Gender	Job	Salary	Phone	Aadhar	Gmail
Harshini	25	female	Manager	100000	0192837465	1234 8765 1923	harshu@gmail.com
Bharath	25	male	Manager	100000	1234567890	1234 5678 9022	Bharat@gmail.com
chandramukhi	24	female	Manager	90000	9080706543	1235 4567 7890	chandra1@gmail.co
Tejaswi Sushma	25	female	Manager	120000	98482845678	1234 6789 0987	jaibalayya@gmail.co
Samhidaawww	21	female	Manager	120000	8234190876	1004 3214 4567	shortsamhida@gma

Load Data

Back

### Update Check status:



Check-In Details

ID:

2001

Room Number :

201

Name :

Sree Divya

Checked-in :

no

Amount Paid (Rs) :

1000


Pending Amount (Rs) :

4000


Check

Update

Back




Message



Data Updated Successfully

OK


### Check out:



Check Out

Number :

1003

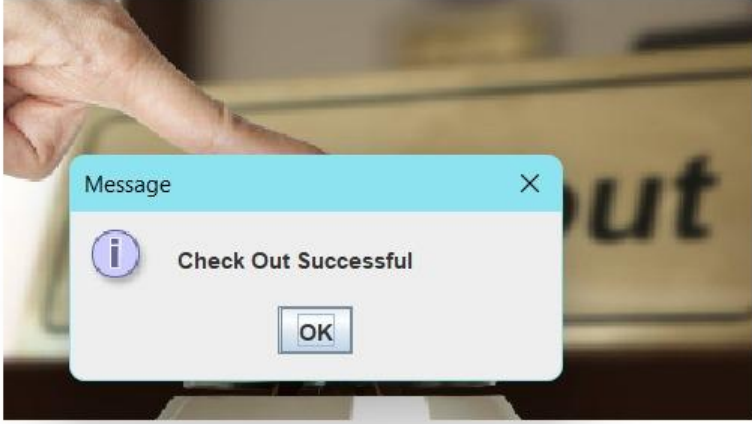


Room Number:


103

Check Out

Back




Message



Check Out Successful

OK

## Menu (Veg):

— □ ×

Select Menu

Type of Food

Veg

Veg


Non-veg

Item	type	cusine	starters	maincourse	dessert	price
001	japanese	Veg	tofu	prons sushi	brownies	1000
003	indian	Veg	paneer65	veg biriyani	brownies	1500
004	thail	Veg	meat balls	crispy rice balls	brownies	2900
006	indain	Veg	papad	south Indian thali	icecreams	500
007	indian	Veg	spring rolls	paneer and roti	brownies	2300
010	chinese	Veg	egg sandwich	schezwan rice	pastries	700

Display

Back

## Menu (Non-Veg):

— □ ×

### Select Menu

Type of Food

Item	type	cusine	starters	maincourse	dessert	price
002	chinese	Non-veg	manchurian	chicken noodles	icecreams	2000
005	seafood	Non-veg	apollo fish	mutton	icecreams	2000
008	indian	Non-veg	peri peri chicken	hyderbadi dum biriy...	cookies	2800
009	french	Non-veg	french onion soup	chicken salmon	pastries	3500

Display

Back



**Update Room status:**

Update Room Status

Guest ID:

2001

Room Number:

201

Availability:

Occupied

Clean Status:

Dirty

Check

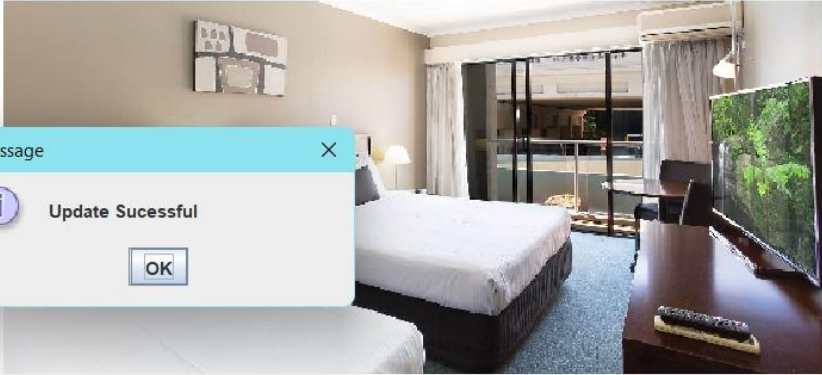
Update

Back

Message

Update Sucessful

OK



**Search Room(All rooms):**

Search For Room

Room Bed Type:

Single Bed


☐

Only display Available

Room Number	Availability	Clean Status	Price	Bed Type
101	Occupied	Cleaned	2000	Single Bed
103	Available	Dirty	3000	Single Bed
203	Occupied	Cleaned	3400	Single Bed
204	Occupied	Dirty	2600	Single Bed

Search

**Search room (only available):**

 — □ ×


## Search For Room

Room Bed Type:  Only display Available ☒

Room Number	Availability	Clean Status	Price	Bed Type
103	Available	Dirty	3000	Single Bed

Search

when we click **Logout** it directs you to the login page to the start directly.


 Login — □ ×

Username

Password

Login

Cancel



Data given : (in Mysql)

```
mysql> show tables;
+-----+
| Tables_in_hotelmanagementsystem |
+-----+
| customer                         |
| department                       |
| employee                         |
| food                             |
| login                            |
| room                             |
+-----+
```

Tables:

```
mysql> select * from login;
+-----+-----+
| username | password |
+-----+-----+
| admin    | 12345    |
+-----+-----+
1 row in set (0.00 sec)

mysql> select * from department;
+-----+-----+
| department | budget |
+-----+-----+
| frontoffice | 2000000 |
| Housekeeping | 120000 |
| FoodBeverage | 2500000 |
| Kitchen and Food production | 700000 |
| Maintenance | 15000000 |
| Accounts | 102456 |
| Security | 1122780 |
| HR Department | 100000 |
| sales and marketing | 2830000 |
| purchase and store | 1310000 |
+-----+-----+
10 rows in set (0.00 sec)

mysql> select * from room;
+-----+-----+-----+-----+-----+
| room_number | availability | clean_status | price | bed_type |
+-----+-----+-----+-----+-----+
| 101 | Occupied | Cleaned | 2000 | Single Bed |
| 102 | Occupied | Cleaned | 4000 | Double Bed |
| 103 | Available | Dirty | 3000 | Single Bed |
| 104 | Occupied | Cleaned | 5000 | Double Bed |
| 105 | Occupied | Cleaned | 5000 | Double Bed |
| 201 | Occupied | Dirty | 5000 | Double Bed |
| 202 | Occupied | Cleaned | 3500 | Double Bed |
| 203 | Occupied | Cleaned | 3400 | Single Bed |
| 204 | Occupied | Dirty | 2600 | Single Bed |
| 205 | Occupied | Cleaned | 4200 | Double Bed |
+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql> 
```

```
mysql> select * from customer;
```

id	number	name	gender	country	room_number	status	deposit
Passport			null		101		
Passport			null		101		
Passport	101	Sushma Chowdary	Female	South korea	102	yes	1500
Aadhar Card	1002	Jayasree	Female	India	103	yes	1000
Passport	1004	peter Kavinsky	Male	USA	101	yes	4000
Passport	1005	Lara jean	Female	South Korea	105	yes	2500
Aadhar Card	2001	Sree Divya	Female	china	201	no	1000
Passport	2002	Ajay Kumar	Male	Pakistan	202	yes	1001
Passport	2003	Sree Samyesh	Male	Phillipines	203	no	0
Aadhar Card	2004	Nagaraju	Male	India	204	yes	1700
Passport	2005	Harshita	Female	Japan	205	yes	420

```
11 rows in set (0.00 sec)
```

```
mysql> select * from employee;
```

name	age	gender	job	salary	phone	aadhar	email
Harshini	25	female	Manager	100000	0192837465	1234 8765 1923	harshu@gmail.com
Tokyo	34	female	Porters	100000	9492978945	123 6754 90876	moneyhiest123@gmail.com
jahnnavi	24	female	Accountant	80000	9213456789	1234 4321 2341	jaan123@gmail.com
professor	23	male	Housekeeping	97000	124356409	1234 8765 4567	improf@gmail.com
Bharath	25	male	Manager	100000	1234567890	1234 5678 9022	Bharat@gmail.com
		null	Front Desk Clerks				
kumari	21	female	Front Desk Clerks	21000	9123456780	1004 2345 6789	kumari21f@gmail.com
Gajala	36	male	Porters	30000	9080706050	1029 3487 6545	sonicsolutions@gmail.com
Battu	42	male	Waiter/Waitress	10000	9182734560	1234 4321 5672	battuchandu@gmail.com
KillBillPandey	30	female	Accountant	80000	9123476509	1023 4321 4567	killbill123@gmail.com
Lavangam	34	male	Housekeeping	35000	9080765321	1234 0987 5647	hosahosaho@gmail.com
Gachibowli Diwakar	27	male	Front Desk Clerks	40000	9123456789	1234 0987 4561	diwakar12@gmail.com
Padmanabha simha	30	male	Waiter/Waitress	45000	9121314151	1233 3213 4321	imbaadshah@gmail.com
chandramukhi	24	female	Manager	90000	9080706543	1235 4567 7890	chandra1@gmail.com
Tejaswi Sushma	25	female	Manager	120000	98482845678	1234 6789 0987	jaibalayya@gmail.com
Samhidaawww	21	female	Manager	120000	8234190876	1004 3214 4567	shortsamhida@gmail.com

```
16 rows in set (0.01 sec)
```

```
mysql> select * from menu;
```

orderno	cusine	type	starters	maincourse	dessert	price
001	japanese	Veg	tofu	prons sushi	brownies	1000
002	chinese	Non-veg	manchurian	chicken noodles	icecreams	2000
003	indian	Veg	paneer65	veg biriyani	brownies	1500
004	thail	Veg	meat balls	crispy rice balls	brownies	2900
005	seafood	Non-veg	apollo fish	mutton	icecreams	2000
006	indain	Veg	papad	south Indian thali	icecreams	500
007	indian	Veg	spring rolls	paneer and roti	brownies	2300
008	indian	Non-veg	peri peri chicken	hyderbadi dum biriyani	cookies	2800
009	french	Non-veg	french onion soup	chicken salmon	pastries	3500
010	chinese	Veg	egg sandwich	schezwan rice	pastries	700

```
10 rows in set (0.00 sec)
```

## Conclusion:

In this project we have tried my best to make user friendly software. This software can be handled by any person who has little idea of computers. In this software we have tried to meet most of the requirements of the present hotel management system including maintaining details of customers, rooms, employees and drivers. We also keep provision to update the details of customers, rooms and employees. In our effort we have tried to make my software all the more user friendly but there may be some features which we would like to include in my continuous attempts.