# HOTEL MANAGEMENT SYSTEM

## ABSTRACT

A Hotel management system is a computerized management system which consists of two sections Lodging part and the Restaurant part.

This project has GUI based software that will help in storing, updating and retrieving the information through various user-friendly menu-driven modules.

The project is aimed to build a fully functional system in order to achieve the efficiency in the hotel management.

Main objective of this project is to provide solution for hotel to manage most there work using computerized process. This software application will help admin to handle customer's information, room allocation details, payment details, billing information, etc. It will also help the employees to carry the tasks like booking a room, payment, etc.

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# INTRODUCTION

This project is an employee-oriented project. The objective of this project is to computerize the system of the hotel. In this project we have made sure that not only the rooms are booked for the customers but the higher authorities also have the authority to store data of new employees and remove them as and when required. There are separate database for each of the categories. In the end the bill is displayed and the room is checked out.

In addition to the room booking we have also added restaurant facilities for the customer. Where a separate bill is provided to the customer depending on the number of people and amount of buffet.

# OBJECTIVE

The objectives of the hotel management system is to simplify the day to day processes of the hotel.

The project contains:

1. Keeping the record of all persons like customers, managers, employees etc.

2. Maintains proper list of all persons staying in the hotel.

3. Generating proper bill slip.

# Proposed system

The development of this new system contains the following activities, which try to automate the entire process keeping in view of database integration approach.

• This system maintains user's personal info, address, contact details and others.

• User friendliness is provided in the application with various controls provided by system rich user interface.

• This system makes the overall project management much easier and flexible.

• Various classes have been used for maintaining the details of all the users and catalog.

• Authentication is provided for this application. Only registered users can access.

• Bill report system is provided which generates the bill at the time of payment.

# FUNCTIONAL REQUIREMENTS

Since it is an employee-oriented programme and not customer oriented. There are basically 2 modules:

1. **ADMIN**: - Admin is basically the person who has the authority of the entire software. He can alter the details of an employee or he can even access the room booking module. He has a separate username and password with the help of which he can proceed with his alterations.

2. **USER**: - User are the employees who have been provided with a username and password and they have the authority to check in or check-out any customer. Not all employees are provided with a username and password. There is a special category for such employees known as the (Lodging Employees).

## ➢ *Hardware Specifications:*

- Personal Computer
- Processor: Above 1 GHz
- Ram: 128 MB or above
- Space Requirement: Minimum space required is 100 MB

## ➢ *System Requirements:*

- Operating System: Windows 7 or above
- Back End: MySQL
- Front End: Eclipse Oxygen Software
- Java Development Kit (JDK 1.8)
- Java Runtime Environment  (JRE)

## System implementation

- First of all for the implementation of Hotel Management the basic idea is to decide about the modules. It has been discussed herewith.
- Error solving is also an important part of system implementation.
- Later on the idea of coding and GUI look for rich code.
- Next is the DataBase Management.
- Lastly merging the code from different PCs to form a single application.

## MODULAR DESCRIPTION

- Book a new room
- Store details of customer

- Check out of the room

- Admit a new employee

- Delete the details of an employee

- Restaurant management

## 1) BOOK A NEW ROOM

- In this module the employee gets to know which rooms are un-booked and hence can book a room according to the needs of the customer.

- The room which is selected is displayed in the textbox and by selecting the next option the program moves to the next module

- In case you select a room and the room is booked, the button will turn yellow in colour.

## 2) STORE DETAILS OF CUSTOMER

- When the room is selected the system asks for the information of the customer who is booking a room

- There are conditions such as all the information is to be filled, phone number has to be of 10 digits, kids and adults not more than 2.

- Failing to which the room won't be booked

- If all conditions are fulfilled the room will be booked successfully

## 3) CHECK OUT OF THE ROOM

- When the option of checkout is selected the software takes us to the billing page where we have to select the room no

- The information of the customer staying in the room is displayed

- After selecting the checkout date the final amount is displayed

- When the pay button is selected the details of the room are deleted from the database

## 4) ADMIT A NEW EMPLOYEE

- The admin has the authority to add a new employee to the hotel

- There are two different forms for two different types of employees

- Restaurant Employees : those who work in the restaurant and those who do not need any access to the room booking

- Lodging Employees : those who are related to rooms and who can book the rooms for the new employee

## 5) DELETE THE DETAILS OF AN EMPLOYEE

- If the employee is to be removed from the hotel the details of the employee can be deleted by entering the employee id of the employee

- If the employee id does not exist in the database it will pop up a window saying employee id does not exist.

## 6) RESTAURANT MANAGEMENT

- Here the restaurant part is handled. In this there is a menu for ordering food.

- After clicking on a particular order it will take you to the payment page where a bill is also generated.

# SECURITY

At every module security is taken care of. The admin has a different username and password and every employee who deals with the bookings has its own username and password. So no one can misuse the details of customer or the employees.

Moreover as and when the function of the user or admin is done it takes us back to the main page so that any new user will have to sign in again.

# DATABASE

**Database:** is a structured set of data held in a computer, especially one that is accessible in various ways.

There are three database tables used in the project

1. **Customer**

Where the customer details along with the room number are stored

- Name

- Nationality

- Permanent address

- Phone number

- Number of adults

- Number of kids

- Check in date

- Room number

## 2. <u>Restaurant employees</u>

These are the details of the employees who will be working in the restaurant

- Name
- Age
- Address
- Contact number
- Designation
- Salary
- Employee number

## 3. <u>Lodging employees</u>

These are the details of the employees who will be working in the reception or the manager

- Name
- Age
- Address
- Contact number
- Designation
- Salary
- Employee number
- Password

Here is a flow of database of the project "hotel management system"

## Database Tables used in this project

CUSTOMER- INFORMATION

EMPLOYEE - INFORMATION

**customer**

- Name
- Nationality
- address
- adults
- phone_no
- kids
- roomno

**lodging_emp**

- Name
- Age
- Address
- Contact_no
- Designation
- Salary
- Username
- pass

**restro_emp**

- name
- age
- address
- phone_number
- designation
- salary
- emp_no
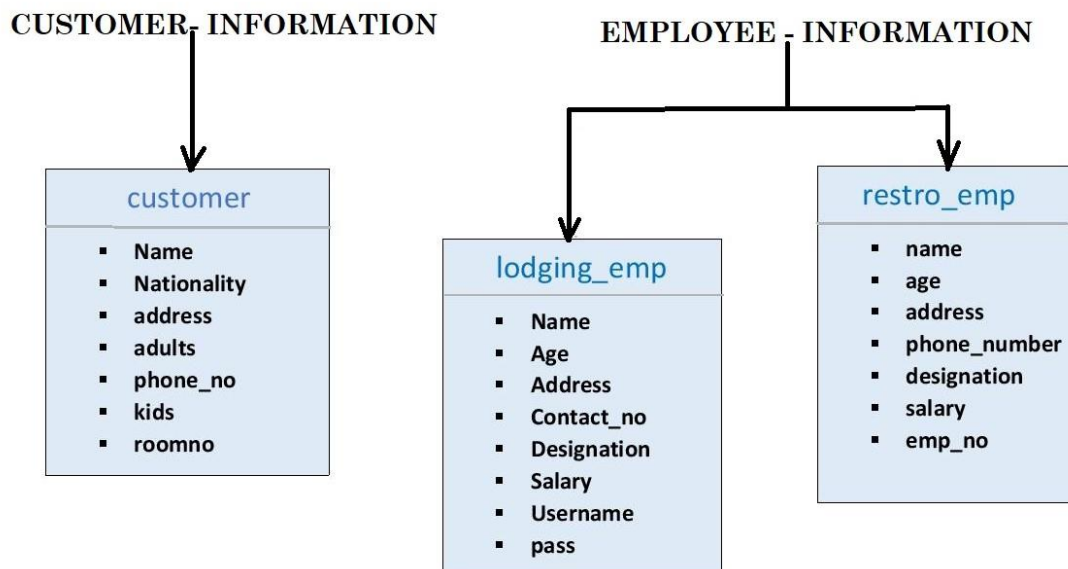
**Screenshots**

```
mysql> show tables;
+---------------------+
| Tables_in_employeedb |
+---------------------+
| customer            |
| lodging_emp         |
| restro_emp          |
| rooms               |
+---------------------+
4 rows in set (0.00 sec)
```

```
mysql> select * from lodging_emp;
+---------+------+---------+------------+-------------+--------+----------+------+
| name    | age  | adress  | contact_no | designation | salary | username | pass |
+---------+------+---------+------------+-------------+--------+----------+------+
| akshata |   19 | nyc     | 8879568925 | reception   |  15000 |     2001 | 2001 |
| Chirag  |   25 | thane   | 9123568956 | Manager     |  50000 |     2002 | 2002 |
+---------+------+---------+------------+-------------+--------+----------+------+
2 rows in set (0.00 sec)
```

```
mysql> select * from restro_emp;
+--------+------+----------+--------------+-------------+--------+--------+
| name   | age  | address  | phone_number | designation | salary | emp_no |
+--------+------+----------+--------------+-------------+--------+--------+
| blue   |   52 | redgreen |   8869532659 | waiter      |  15000 |   1002 |
| xyzcba |   18 | gghhjj   |   9985632078 | chef        |  20000 |   1001 |
+--------+------+----------+--------------+-------------+--------+--------+
2 rows in set (0.00 sec)
```

```
mysql> select * from customer;
+------+-------------+---------+--------+------------+------+------------+--------+
| Name | Nationality | address | adults | phone_no   | kids | date       | roomno |
+------+-------------+---------+--------+------------+------+------------+--------+
| QWER | TYUI        | OPASDF  |      2 | 8875623898 |    1 | 2018-09-21 |    204 |
| QWRE | RTYU        | TGNB    |      1 | 1234567890 |    1 | 2018-09-26 |    302 |
| new  | indian      | thane   |      1 | 9820168895 |    2 | 2018-10-10 |    102 |
+------+-------------+---------+--------+------------+------+------------+--------+
3 rows in set (0.00 sec)
```

# THE ATLANTIS

*Happiness Guaranteed*

**User**

**Admin**

EXIT

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WELCOME TO THE ATLANTIS

## LOGIN HERE

LOGIN

# ATLANTIS
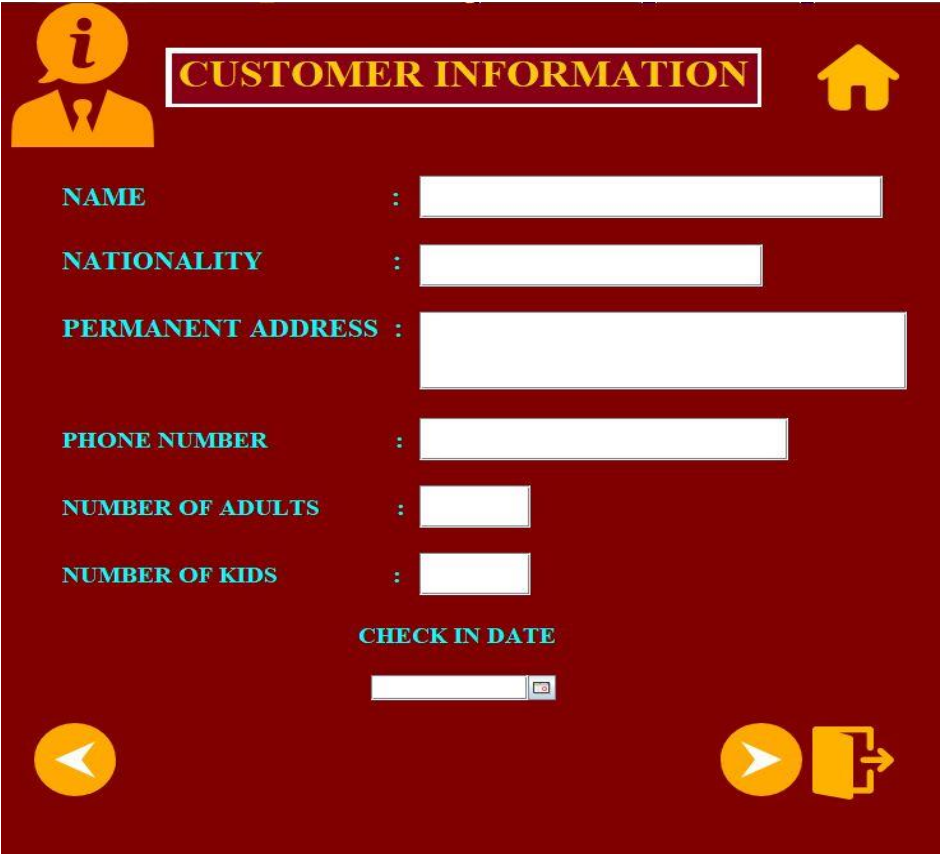
# LODGING

CHECK - IN

CHECK - OUT

## CUSTOMER INFORMATION

| NAME | NATIONALITY | PHONE NUMBER | KIDS | ADULTS | ROOM NO |
|------|-------------|--------------|------|--------|---------|
| AS Shelke | Pakistani | 1234567890 | 2 | 2 | 404 |
| my name | nknk | 9565656898 | 2 | 1 | 204 |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

BOOK A ROOM

## Employee Information

| Name | Age | Phone No. | Designation | Salary | Emp No. |
|------|-----|-----------|-------------|--------|---------|
| akshata | 19 | 8879568925 | reception | 15000 | 2001 |
| Chirag | 25 | 9123568956 | Manager | 50000 | 2002 |
| blue | 52 | 8869532659 | waiter | 15000 | 1002 |
| xyzcba | 18 | 9985632078 | chef | 20000 | 1001 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |

Add Employee          Delete Employee

**ROOM**

| | | | | |
|---|---|---|---|---|
| **FLOOR 1** | 101 | 102 | 103 | 104 |
| **FLOOR 2** | 201 | 202 | 203 | 204 |
| **FLOOR 3** | 301 | 302 | 303 | 304 |
| **FLOOR 4** | 401 | 402 | 403 | 404 |

**Selected Room**

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## CUSTOMER INFORMATION

NAME                          :

NATIONALITY                   :

PERMANENT ADDRESS  :

PHONE NUMBER            :

NUMBER OF ADULTS     :

NUMBER OF KIDS          :

**CHECK IN DATE**

## EMPLOYEE DETAILS

Restaurant Employee | Lodging Employee

Name :

Age :

Address :

Contact Number:

Designation :

Salary :

Employee Number :

## ADMIN PORTAL

WELCOME TO

ADMIN

PORTAL

EMPLOYEE
INFORMATION

CUSTOMER
INFORMATION

## DELETE EMPLOYEE

### RESTAURANT EMPLOYEE

ENTER EMPLOYEE NUMBER TO BE DELETED

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## CHECK - OUT

Room no    101

Coustumer Name

Check - in Date

Checkout Date

CALCULATE BILL

Pay Amount

*AMOUNT IS INCLUSIVE OF 18% GST ON THE COST OF THE ROOM

Pay

## CONCLUSION

Hence we conclude by saying that we have successfully completed hotel management system in Java using Swings and MY-SQL database, with a rich GUI interface.