

OBJECT-ORIENTED PROGRAMMING

PROJECT
Hotel Management System

Hotel Management System

One-line Description of Project

Design and Develop a **Console-based** Hotel Management System.

Overview of Project

This project will facilitate the Hotel owner in the Hotel to keep a record of rooms and reservations and create a report regularly.

Project Detail

The Hotel for which you are creating this project has 5 floors and each floor has 50 rooms.

The following are the types of rooms:

1. Standard

- a. This category usually means the most basic room type offered by the hotel. It has basic, standard amenities and furnishings. A standard room in a Four Seasons hotel is without question much more deluxe than a standard in, say, a Holiday Inn, but there may be higher categories from which to choose. Standard rooms in hotels with higher categories often have no view or have a poor view over the dumpster or parking lot.
- b. Price is Rs.300 / 24 Hours
- c. This Hotel contains a total of 50 rooms of this type, 10 on each floor.

2. Moderate

- a. Usually a slight bit better than standard, but still not deluxe. It may refer to the room view as well as the size and type of furnishings offered.

- b. Price is Rs. 500 / 24 Hours
- c. This Hotel contains a total of 50 rooms of this type, 10 on each floor

3. Superior

- a. This category is always subject to interpretation. It's supposed to mean superior to a standard room in both size and furnishings, but it often refers to just the view. Some hotels have only Superior rooms; the categories then are defined by the view and location of the room.
- b. Price is Rs. 1000 / 24 Hours
- c. This Hotel contains a total of 50 rooms of this type, 10 on each floor.

4. Junior Suite

- a. A "junior" suite is typically a larger room with a separate seating area. Sometimes it's got a small divider between the part of the room that the bed is in and the seating area, but it is not two separate rooms.
- b. Price is Rs. 2000 / 24 Hours
- c. This Hotel contains a total of 50 rooms of this type, 10 on each floor

5. Suite

- a. A Suite is usually two or more rooms clearly defined; a bedroom and a living or sitting room, with a door that closes between them. Many hotels use the word "suite" to define any room with a sofa in it so be sure to check thoroughly if what you want are the two or more separate rooms.
- b. The price is Rs. 5000 / 24 Hour

c. This Hotel contains a total of 50 rooms of this type, 10 on each floor.

This Hotel records the following information about its customer

- Full Name
- Age
- Gender
- ID card-Number
- Balance in Rupees (If paid in advance, balance will be zero)
- Total Days to reserve
- Floor Number on which the reserved room is
- Room Type
- Room Number
- Check-in time and date
- Checkout time and date
- Time remaining in the Hotel (in Hours, should be calculated on runtime

automatically) [Menu/Option](#)

```
[ HOTEL MANAGEMENT SYSTEM -> Menu ]
1 . Press 1 to Reserve a room
2 . Press 2 to Checkin a customer/visitor
3 . Press 3 to View Reserved Rooms
4 . Press 3 to see detail report
5 . Press 5 to exit
```

- ✧ If the room is reserved it should not be reserved again until the customer checkout or reserve time is ended.
- ✧ When the room is reserved, it should ask the customer if he/she is an old customer or a new customer.

If the new customer is, then record all the above-mentioned things and give the customer a room.

If an old customer is, then search the old customer's name in the database (file) and retrieve all his/her info and give him/her a room.

- ✧ **NOTE:** There is a lot of difference between Reserve and Check in a customer.
- ✧ In the Detail Report, you've to give daily base statistics for example

How many customers have checked in today?

How many have checked out today

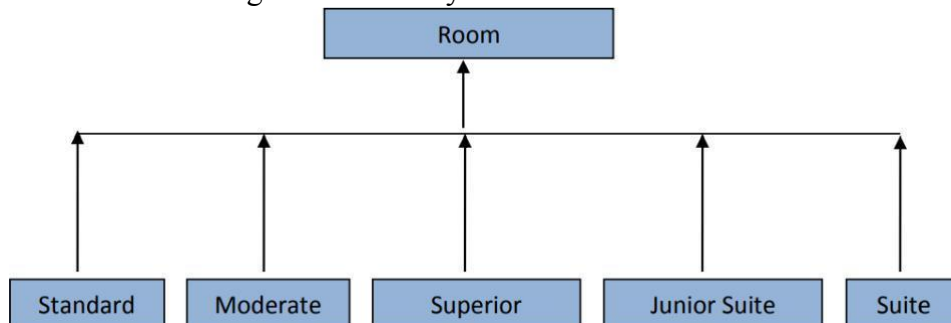
How many rooms have been reserved and their types

How many are empty and their types?

- ✧ You also have to save all the information in the files. There is no restriction on the file format.

Class Design

For Rooms make the following class hierarchy:



You Must use all concepts of classes including operator overloading, inheritance, polymorphism, etc.

Only one global variable is allowed in the whole project.

Data Storage

× In Files

All the data should be saved in files.

The filing section contains almost 50 % marks of the whole project.

If I close the program and run it again, it should read all the records and old data that were saved last time.

You can use any format for filing.

All the information about the room should be saved in the rooms.dat file

All the information of customers should be saved in the customers.dat file