

## Hotel Management system

```
package hotelreservation;

import java.io.*;
import javax.swing.*;
import java.util.*;
import java.text.DateFormat;
import java.text.SimpleDateFormat;

class Rooms {

    String name, category;
    int room_no, price;
    DateFormat dateFormat = new SimpleDateFormat("yyyy/MM/dd HH:mm:ss");
    Date date = new Date();

    public void set_name(String n) {
        this.name = n;
    }

    public String get_name() {
        return name;
    }

    public void setcategory(String c) {
        this.category = c;
    }

    public String getcategory() {
        return category;
    }

    public void setroom_no(int rno) {
        this.room_no = rno;
    }

    public int getroom_no() {
        return room_no;
    }

    public void set_price(int p) {
        this.price = p;
    }

    public int get_price_no() {
```

```

        return price;
    }

    void display() {
        JOptionPane.showMessageDialog(null, "Name : " + name + "\n" + "Cateogry : " + category + "\n" + "Room no
:" + room_no + "\n" + "Price : " + price + "\n" + "Booked on : " + date);
    }

    void dis() {
        JOptionPane.showMessageDialog(null, "Cateogry : " + category + "\n" + "Room no : " + room_no + "\n" + "Price
: " + price);
    }
}

class Single_Room extends Rooms {

    Single_Room() {
        price = 1000;
        category = "Single Bed";
        room_no = 01;
    }
}

class Double_Room extends Rooms {

    Double_Room() {
        price = 2000;
        category = "Double bed";
        room_no = 05;
    }
}

class penthouse_suiteRoom extends Rooms {

    penthouse_suiteRoom() {
        price = 4000;
        category = "Penthouse Suite BedRoom";
        room_no = 10;
    }
}

class Large_kingsizeRoom extends Rooms {

    Large_kingsizeRoom() {
        price = 6000;
        category = "Large Kingsize BedRoom";
        room_no = 15;
    }
}

```

```
}
```

```
class payment_method {
```

```
    String customer_name, payment_method;
```

```
    public String getcustomer_name() {  
        return customer_name;  
    }
```

```
    public void setcustomer_name(String name) {  
        this.customer_name = name;  
    }
```

```
    void display_payment() {  
        JOptionPane.showMessageDialog(null, "Customer name :" + customer_name + "\n" + "Payment method :" +  
payment_method + "\n");
```

```
    }  
}
```

```
class online_payment extends payment_method {
```

```
    online_payment() {  
        payment_method = "Online Payment";  
    }
```

```
    int debit_cardNo, debit_password;
```

```
    public int dcard_no() {  
        return debit_cardNo;  
    }
```

```
    public void setdcars_no(int dno) {  
        this.debit_cardNo = dno;  
    }
```

```
    public void setpassword(int pno) {  
        this.debit_password = pno;  
    }
```

```
}
```

```
class hardcash_payment extends payment_method {
```

```
    hardcash_payment() {  
        payment_method = "Cash Payment";  
    }
```

```
    String bank_name;  
    int bank_accountNo;
```

```
    public String getbank_name() {  
        return bank_name;  
    }
```

```

    }

    public void setbank_name(String bname) {
        this.bank_name = bname;
    }

    public int getbank_accno() {
        return bank_accountNo;
    }

    public void setbank_name(int ano) {
        this.bank_accountNo = ano;
    }
}

class hotel {

    ArrayList rooms;

    hotel() {
        rooms = new ArrayList();
    }
    int a = 10;
    int b = 10;
    int c = 10;
    int d = 10;

    void Booking_room() {
        String paymentm;

        String name = JOptionPane.showInputDialog("Enter Your name");

        String cat = JOptionPane.showInputDialog("Select Type of Room" + "\n" + "1-Single Bedroom" + "\n" + "2-Double Bedroom" + "\n" + "3-PentHouse suite" + "\n" + "4-Large King size");

        switch (cat) {

            case "1":
                Single_Room sr = new Single_Room();
                sr.set_name(name);
                rooms.add(sr);
                a = a - 1;
                // sr.set_price(1000);
                // sr.setroom_no(01);
                // sr.setcategory("Single BedRoom");

                // sr.display();
                break;

            case "2":
                Double_Room dr = new Double_Room();
                dr.set_name(name);

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        b = b - 1;
        // dr.set_price(2000);
        // dr.setroom_no(05);
        // dr.setcategory("Double BedRoom");
        // dr.display();
        rooms.add(dr);
        break;

    case "3":
        penthouse_suiteRoom pr = new penthouse_suiteRoom();
        pr.set_name(name);
        rooms.add(pr);
        c = c - 1;
        // pr.set_price(5000);
        // pr.setroom_no(01);
        // pr.setcategory("Penthouse suitRoom");
        // pr.display();
        break;
    case "4":
        Large_kingsizeRoom lr = new Large_kingsizeRoom();
        lr.set_name(name);
        rooms.add(lr);
        d = d - 1;
        // lr.set_price(10000);
        // lr.setroom_no(01);
        // lr.setcategory("Large kingsize Room");
        // lr.display();
        break;
}

```

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paymentm = JOptionPane.showInputDialog("Enter payment method : " + "\n" + "1- Online payment " + "\n" +
"2- Cash payment");

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switch (paymentm) {
    case "1":
        online_payment op = new online_payment();
        op.setcustomer_name(name);
        String dc = JOptionPane.showInputDialog("Enter debit card no : ");
        int d = Integer.parseInt(dc);
        if (d < 0) {
            throw new NumberFormatException("not valid");
        }
        String dp = JOptionPane.showInputDialog("Enter your card password : ");
        int dd = Integer.parseInt(dp);
        op.setdcars_no(d);
        op.setpassword(dd);
        JOptionPane.showMessageDialog(null, "Room Booked Sucessfully..!" + "\nCustomer Name : " + name +
"\n" + "Room Type : " + "\nDebit card no : ");
        break;

    case "2":

```

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hardcash_payment hp = new hardcash_payment();

hp.setcustomer_name(name);
String bankn = JOptionPane.showInputDialog("Enter Bank name : ");
String aacntn = JOptionPane.showInputDialog("Enter account number : ");
int acn = Integer.parseInt(aacntn);
if (acn < 0) {
    throw new NumberFormatException("not valid");
}
hp.setbank_name(bankn);
hp.setbank_name(acn);

JOptionPane.showMessageDialog(null, "Room Booked Sucessfully..!" + "\n" + "Customer Name : " + name
+ "\n" + "\n" + "Bank name : " + bankn + "\n" + "Account number : " + acn);
break;
}

}

void search_room(String t) {
    for (int i = 0; i < rooms.size(); i++) {
        Rooms v = (Rooms) rooms.get(i);
        if (t.equals(v.name)) {
            v.display();
        }
    }
}

void room_details() {
    String g = JOptionPane.showInputDialog("Select Room ..!" + "\n" + "1-Single Bed" + "\n" + "2-Double Bed" +
"\n" + "3-Penthouse Suite BedRoom" + "\n" + "4-Large Kingsize BedRoom");
    switch (g) {
        case "1":
            Single_Room sr = new Single_Room();
            sr.dis();
            break;
        case "2":
            Double_Room dr = new Double_Room();
            dr.dis();
            break;
        case "3":
            penthouse_suiteRoom pr = new penthouse_suiteRoom();
            pr.dis();
            break;
        case "4":
            Large_kingsizeRoom lr = new Large_kingsizeRoom();
            lr.dis();
            break;
    }
}
}

```

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void check_availability() {
    JOptionPane.showMessageDialog(null, "Single Room Available : " + a + "\n" + "Double BedRoom Available : " +
b + "\n" + "Penthouse suiteRoom Available : " + c + "\n" + "King Size Large Room Available : " + d);
}

void list_alltypeRoom() {
    JOptionPane.showMessageDialog(null, "1-Single Bed" + "\n" + "2-Double Bed" + "\n" + "3-Penthouse Suite
BedRoom" + "\n" + "4-Large Kingsize BedRoom");
}

public void save_details() {
    try {
        Rooms p;
        String line;
        FileWriter fw = new FileWriter("C:\\Users\\Qazi wahaj\\Desktop\\roominfo.txt");

//FileWriter fw = new FileWriter(file,true);
        PrintWriter pw = new PrintWriter(fw);
        for (int i = 0; i < rooms.size(); i++) {
            p = (Rooms) rooms.get(i);
            line = p.name + "," + p.category + "," + p.room_no + "," + p.price + "," + p.date;

            pw.println(line);
        }
        pw.flush();
        pw.close();
        fw.close();
    } catch (IOException ioEx) {
        System.out.println(ioEx);
    }
}

void remove_user(String n) {

    for (int i = 0; i < rooms.size(); i++) {
        Rooms p = (Rooms) rooms.get(i);

        if (n.equals(p.name)) {
            rooms.remove(i);
            JOptionPane.showMessageDialog(null, "User Details deleted..!");
        }

    }
}

void load_details() {
    String token[] = null;
    String name, category, rm, pc;

    int roomno, price;
    try {
        FileReader fr = new FileReader("C:\\Users\\Qazi wahaj\\Desktop\\roominfo.txt");
        BufferedReader br = new BufferedReader(fr);
    }
}

```

```
String line = br.readLine();
while (line != null) {
    token = line.split(",");
    name = token[0];
    category = token[1];

    rm = token[2];
    roomno = Integer.parseInt(rm);
    pc = token[3];
    pric = Integer.parseInt(pc);

    Rooms p = new Rooms();
    p.set_name(name);
    p.setcategory(category);
    p.setroom_no(roomno);
    p.set_price(pric);

    rooms.add(p);

    line = br.readLine();
}
br.close();
fr.close();
} catch (Exception e) {
    System.out.print(e);
}
}

}

public class HotelReservation {

    public static void main(String[] args) {
        // TODO code application logic here
        hotel h = new hotel();

        h.load_details();
        while (true) {

            String c = JOptionPane.showInputDialog(null, "1-Book Room" + "\n2-Search Room By Customer name" +
"\n3-Search Room Details" + "\n4-List Of all types of Rooms" + "\n5- Check Availability" + "\n6-Remove user" +
"\n7-Exit ");

            switch (c) {

                case "1":
                    try {
                        h.Booking_room();
                    } catch (NumberFormatException e1) {
                        JOptionPane.showMessageDialog(null, "Pls enter valid one..");
                    }
            }
        }
    }
}
```



```

        break;
    case "2":
        String d = JOptionPane.showInputDialog("Enter Name to search");
        try {
            h.search_room(d);
        } catch (NumberFormatException e1) {
            JOptionPane.showMessageDialog(null, "Pls enter valid one..");
        }
        break;

    case "3":
        try {
            h.room_details();
        } catch (NumberFormatException e1) {
            JOptionPane.showMessageDialog(null, "Pls enter valid one..");
        }
        break;
    case "4":
        h.list_alltypeRoom();
        break;
    case "5":
        h.check_availibilty();
        break;
    case "6":
        String n = JOptionPane.showInputDialog("Enter username to remove");
        try {
            h.remove_user(n);
        } catch (NumberFormatException e1) {
            JOptionPane.showMessageDialog(null, "The username you enter isn't in the list..");
        }
        break;
    case "7":
        h.save_details();
        System.exit(0);
    }
}
}
}

```