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);

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;

}

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

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":

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;

}

}

void check\_availibilty() {

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, categry, rm, pc;

int roomno, pric;

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];

categry = 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(categry);

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 Availabity" + "\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);

}

}

}

}