import java.util.ArrayList;

import java.util.List;

public class Hotel {

String name, address;

int hotelId;

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

public String getAddress() {

return address;

}

public void setAddress(String address) {

this.address = address;

}

public int getHotelId() {

return hotelId;

}

public void setHotelId(int hotelId) {

this.hotelId = hotelId;

}

public List<Room> getRoomList() {

return roomList;

}

public void setRoomList(List<Room> roomList) {

this.roomList = roomList;

}

List<Room> roomList = new ArrayList<>();

void addRoom(Room obj2) {

roomList.add(obj2);

}

void display() {

int cnt = roomList.size();

System.out.println("Hotel Room Details : ");

for (int i = 0; i < cnt; i++) {

Room r = roomList.get(i);

r.display();

}

}

}

**public** **class** ConferenceHall **extends** Hall {

**boolean** wifiHall, projector;

**public** ConferenceHall(**int** roomid, **int** hours, **int** rate, **int** capacity, **boolean** soundSystem, **boolean** wifiHall,

**boolean** projector) {

**super**(roomid, hours, rate, capacity, soundSystem);

**this**.wifiHall = wifiHall;

**this**.projector = projector;

}

**void** display() {

System.***out***.println("Conference Hall");

System.***out***.println("Room ID : " + roomid);

System.***out***.println("Capacity : " + capacity);

System.***out***.println("Sound System : " + soundSystem);

System.***out***.println("Wifi : " + wifiHall);

System.***out***.println("Projector : " + projector);

System.***out***.println("Room Rate : " + rate);

System.***out***.println();

}

}

**public** **class** Hall **extends** Room {

**int** capacity;

**boolean** soundSystem;

**public** Hall(**int** roomid, **int** hours, **int** rate, **int** capacity, **boolean** soundSystem) {

**super**(roomid, hours, rate);

**this**.capacity = capacity;

**this**.soundSystem = soundSystem;

}

**void** display() {

}

}

**public** **class** HotelRoom **extends** Room {

**int** roomType;

**boolean** wifi;

**public** HotelRoom(**int** roomid, **int** hours, **int** rate, **int** roomType, **boolean** wifi) {

**super**(roomid, hours, rate);

**this**.roomType = roomType;

**this**.wifi = wifi;

}

**void** display() {

System.***out***.println("Lodge Room");

System.***out***.println("Room ID : " + roomid);

System.***out***.print("Room Type : ");

**if** (roomType == 1)

System.***out***.println("Single");

**else** **if** (roomType == 2)

System.***out***.println("Double");

**else**

System.***out***.println("Delux");

System.***out***.println("wifi : " + wifi);

System.***out***.println("Room Rate : " + rate);

System.***out***.println();

}

}

**import** java.util.Scanner;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

String Hname, Haddress, w, amenities, roomType1;

**int** roomid = 0, roomName, roomType, hallType, capacity;

**boolean** wifi, soundSystem, projector;

Room obj2 = **new** Room();

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter the Hotel Details");

System.***out***.println("Enter the Hotel name");

Hname = sc.nextLine();

System.***out***.println("Enter the Hotel Location");

Haddress = sc.nextLine();

Hotel obj1 = **new** Hotel();

**do** {

roomid++;

**int** sum = 0;

System.***out***.println("Enter the Room name");

System.***out***.println("1.Hotel Room");

System.***out***.println("2.Hall");

roomName = sc.nextInt();

**if** (roomName == 1) {

**int** hours = 24;

System.***out***.println("Enter the Room Type");

System.***out***.println("1.Single");

System.***out***.println("2.Double");

System.***out***.println("3.Delux");

roomType = sc.nextInt();

**if** (roomType == 1)

sum = sum + ((1000 \* hours) / 24);

**else** **if** (roomType == 2)

sum = sum + ((1500 \* hours) / 24);

**else**

sum = sum + ((2000 \* hours) / 24);

System.***out***.println("Need WiFi ??(true/false)");

wifi = sc.nextBoolean();

obj2 = **new** HotelRoom(roomid, hours, sum, roomType, wifi);

obj1.addRoom(obj2);

} **else** {

**int** hours = 1;

System.***out***.println("Enter the Hall Type");

System.***out***.println("1.Party Hall");

System.***out***.println("2.Conference Hall");

hallType = sc.nextInt();

**if** (hallType == 1) {

System.***out***.println("Enter the Capacity");

capacity = sc.nextInt();

System.***out***.println("Need soundSystem ??(true/false)");

soundSystem = sc.nextBoolean();

sc.nextLine();

System.***out***.println("Enter the Party Name");

roomType1 = sc.nextLine();

System.***out***.println("Enter the Amenities Cost");

amenities = sc.nextLine();

sum = sum + 200 \* hours;

obj2 = **new** PartyHall(roomid, hours, sum, capacity, soundSystem, roomType1, amenities);

obj1.addRoom(obj2);

}

**else** {

sum = sum + 250 \* hours;

System.***out***.println("Enter the Capacity");

capacity = sc.nextInt();

System.***out***.println("Need soundSystem ??(true/false)");

soundSystem = sc.nextBoolean();

System.***out***.println("Need WiFi ??(true/false)");

wifi = sc.nextBoolean();

System.***out***.println("Need Projector ??(true/false)");

projector = sc.nextBoolean();

obj2 = **new** ConferenceHall(roomid, hours, sum, capacity, soundSystem, wifi, projector);

obj1.addRoom(obj2);

}

}

System.***out***.println("Do you want to add another room?(y/n)");

w = sc.next();

} **while** (w.equals("y"));

obj1.display();

}

}

**public** **class** PartyHall **extends** Hall {

String amenities, roomType;

**public** PartyHall(**int** roomid, **int** hours, **int** rate, **int** capacity, **boolean** soundSystem, String roomType,

String amenities) {

**super**(roomid, hours, rate, capacity, soundSystem);

**this**.roomType = roomType;

**this**.amenities = amenities;

}

**void** display() {

System.***out***.println("Party Hall");

System.***out***.println("Room ID : " + roomid);

System.***out***.println("Capacity : " + capacity);

System.***out***.println("Sound System : " + soundSystem);

System.***out***.println("Type of Party : " + roomType);

System.***out***.println("Amenties : " + amenities);

System.***out***.println("Room Rate : " + rate);

System.***out***.println();

}

}

**public** **class** Room {

**int** roomid, hours;

**int** rate;

**public** Room() {

}

**public** Room(**int** roomid, **int** hours, **int** rate) {

**this**.roomid = roomid;

**this**.hours = hours;

**this**.rate = rate;

}

**void** display() {

}

}