Module-4

Assignment-3

Code:

buildings interface:

```
package Module_4;


public interface buildings {
int rooms(int n,int area);
void display(int total);
}
```

residential class:

```
package Module_4;


public class residential {
int n;
residential(){
n=0;
}
residential(int w){
n=w;
}
void display() {
System.out.println("The number of rooms: "+n);
}
```

```
}
```

commercial class:

```
package Module_4;

public class commercial {
int n;
commercial(){
n=0;
}
commercial(int y){
n=y;
}
void display() {
System.out.println("The number of rooms: "+n);
}
}
```

apartments class:

```
package Module_4;

public class apartments extends residential implements buildings {
int n;
int area;
apartments(){
n=0;
area=0;
```

```
}
apartments(int w){
super(w);
}
@Override
public int rooms(int w,int x) {
n=w;
area=x;
int total=0;
total=n*area;
return total;
}
@Override
public void display(int total) {
super.display();
System.out.println("The price of the apartment: "+total);
}
}
```

hostels class:

```
package Module_4;

public class hostels extends residential implements buildings {
int n;
int area;
hostels(){
n=0;
```

```
area=0;
}
hostels(int w){
super(w);
}
@Override
public int rooms(int w,int x) {
n=w;
area=x;
int total=0;
total=n*area;
return total;
}
@Override
public void display(int total) {
super.display();
System.out.println("The price of the hostel: "+total);
}
}
```

offices class:

```
package Module_4;

public class offices extends commercial implements buildings {
int n;
int area;
offices(){
```

```
n=0;
area=0;
}
offices(int y){
super(y);
}
@Override
public int rooms(int y,int z) {
n=y;
area=z;
int total=n*area;
return total;
}
@Override
public void display(int total) {
super.display();
System.out.println("The price of the office: "+total);
}
}
```

malls class:

```
package Module_4;

public class offices extends commercial implements buildings {
int n;
int area;
offices(){
```

```
n=0;
area=0;
}
offices(int y){
super(y);
}
@Override
public int rooms(int y,int z) {
n=y;
area=z;
int total=n*area;
return total;
}
@Override
public void display(int total) {
super.display();
System.out.println("The price of the office: "+total);
}
}
```

main class:

```
package Module_4;
import java.io.*;
public class main {
public static void main(String args[])throws IOException{
InputStreamReader isr=new InputStreamReader(System.in);
BufferedReader br=new BufferedReader(isr);
```

```
System.out.println("What do you want to buy?");
System.out.println("1. Apartment");
System.out.println("2. Hostel");
System.out.println("3. Office");
System.out.println("4. Shopping Mall");
System.out.println("Enter the user's choice: ");
int ch=Integer.parseInt(br.readLine());
switch(ch) {
case 1:System.out.println("Enter the price per unit area: ");
  int n1=Integer.parseInt(br.readLine());
  System.out.println("Enter the area: ");
  int area1=Integer.parseInt(br.readLine());
  apartments ob1=new apartments(n1);
  int total1=ob1.rooms(n1, area1);
  ob1.display(total1);
  break;
case 2:System.out.println("Enter the price per unit area: ");
                int n2=Integer.parseInt(br.readLine());
                System.out.println("Enter the area: ");
                int area2=Integer.parseInt(br.readLine());
                hostels ob2=new hostels(n2);
                int total2=ob2.rooms(n2, area2);
                ob2.display(total2);
                break;
case 3:System.out.println("Enter the price per unit area: ");
                int n3=Integer.parseInt(br.readLine());
                System.out.println("Enter the area: ");
```

```
                int area3=Integer.parseInt(br.readLine());
                offices ob3=new offices(n3);
                int total3=ob3.rooms(n3, area3);
                ob3.display(total3);
                break;
case 4:System.out.println("Enter the price per unit area: ");
                int n4=Integer.parseInt(br.readLine());
                System.out.println("Enter the area: ");
                int area4=Integer.parseInt(br.readLine());
                malls ob4=new malls(n4);
                int total4=ob4.rooms(n4, area4);
                ob4.display(total4);
                break;
default:System.out.println("Enter a valid choice");
}
}
}
```

Output:

Output 1:

What do you want to buy?

1. Apartment

2. Hostel

3. Office

4. Shopping Mall

Enter the user's choice:

1

Enter the price per unit area:

1000

Enter the area:

900

The number of rooms: 1000

The price of the apartment: 900000

Output 2:

What do you want to buy?

1. Apartment

2. Hostel

3. Office

4. Shopping Mall

Enter the user's choice:

4

Enter the price per unit area:

2000

Enter the area:

2000

The number of rooms: 2000

The price of the mall: 4000000