| Status | Finished |
|---|---|
| Started | Sunday, 6 October 2024, 8:58 PM |
| Completed | Sunday, 6 October 2024, 9:09 PM |
| Duration | 45 mins 4 secs |

Create a class Student with two private attributes, name and roll number. Create three objects by invoking different constructors available in the class Student.

Student()

Student(String name)

Student(String name, int rollno)

**Input:**

No input

**Output:**

**No-arg constructor is invoked**
**1 arg constructor is invoked**
**2 arg constructor is invoked**
**Name =null , Roll no = 0**
**Name =Rajalakshmi , Roll no = 0**
**Name =Lakshmi , Roll no = 101**

**For example:**

| Test | Result |
|------|--------|
| 1 | No-arg constructor is invoked<br>1 arg constructor is invoked<br>2 arg constructor is invoked<br>Name =null , Roll no = 0<br>Name =Rajalakshmi , Roll no = 0<br>Name =Lakshmi , Roll no = 101 |

**Answer:** (penalty regime: 0 %)

```java
import java.util.*;
class student{
    private String name;
    private int rollnumber;
    public student(){
        System.out.println("No-arg constructor is invoked");
        this.name=null;
        this.rollnumber=0;
    }
    public student(String name){
        System.out.println("1 arg constructor is invoked");
        this.name=name;
        this.rollnumber=0;
    }
    public student(String name,int rollnumber){
        System.out.println("2 arg constructor is invoked");
        this.name=name;
        this.rollnumber=rollnumber;
    }
    public void display(){
        System.out.println("Name ="+name+" , Roll no = "+rollnumber);
    }
}
public class StudentTest{
    public static void main(String arg[]){
        student s1=new student();
        student s2=new student("Rajalakshmi");
        student s3=new student("Lakshmi",101);
        s1.display();
        s2.display();
        s3.display();
    }
}
```

| | Test | Expected | Got | |
|---|------|----------|-----|---|
| ✓ | 1 | No-arg constructor is invoked<br>1 arg constructor is invoked<br>2 arg constructor is invoked<br>Name =null , Roll no = 0<br>Name =Rajalakshmi , Roll no = 0<br>Name =Lakshmi , Roll no = 101 | No-arg constructor is invoked<br>1 arg constructor is invoked<br>2 arg constructor is invoked<br>Name =null , Roll no = 0<br>Name =Rajalakshmi , Roll no = 0<br>Name =Lakshmi , Roll no = 101 | ✓ |

Passed all tests! ✓

Create a class called "Circle" with a radius attribute. You can access and modify this attribute using getter and setter methods. Calculate the area and circumference of the circle.

**Area of Circle = $\pi r^2$**

**Circumference = $2\pi r$**

**Input:**

2

**Output:**

Area = 12.57

Circumference = 12.57

**For example:**

| Test | Input | Result |
|------|-------|--------|
| 1 | 4 | Area = 50.27<br>Circumference = 25.13 |

**Answer:** (penalty regime: 0 %)

Reset answer

```java
1  import java.util.*;
2  class Circle
3  {
4      private double radius;
5      public Circle(double radius){
6          // set the instance variable radius
7          setRadius(radius);
8
9      }
10     public void setRadius(double radius){
11         // set the radius
12         this.radius=radius;
13
14     }
15     public double getRadius()    {
16         // return the radius
17         return radius;
18
19     }
20     public double calculateArea()  { // complete the below statement
21         return Math.PI*radius*radius;
22
23     }
24     public double calculateCircumference()    {
25         // complete the statement
26         return  2*Math.PI*radius;
27     }
28 }
29 class prog{
30     public static void main(String[] args)  {
31         int r;
32         Scanner sc= new Scanner(System.in);
33         r=sc.nextInt();
34         Circle c= new Circle(r);
35         System.out.println("Area = "+String.format("%.2f", c.calculateArea()));
36         // invoke the calculatecircumference method
37         System.out.println("Circumference = "+String.format("%.2f", c.calculateCircumference()));
38
39     }
40 }
41
```

| | Test | Input | Expected | Got | |
|---|---|---|---|---|---|
| ✓ | 1 | 4 | Area = 50.27<br>Circumference = 25.13 | Area = 50.27<br>Circumference = 25.13 | ✓ |
| ✓ | 2 | 6 | Area = 113.10<br>Circumference = 37.70 | Area = 113.10<br>Circumference = 37.70 | ✓ |
| ✓ | 3 | 2 | Area = 12.57<br>Circumference = 12.57 | Area = 12.57<br>Circumference = 12.57 | ✓ |

Passed all tests! ✓

Create a Class Mobile with the attributes listed below,

private String manufacturer;
private String operating_system;
public String color;
private int cost;

Define a Parameterized constructor to initialize the above instance variables.

Define getter and setter methods for the attributes above.

for example : setter method for manufacturer is

void setManufacturer(String manufacturer){

this.manufacturer= manufacturer;

}

String getManufacturer(){

 return manufacturer;}

Display the object details by overriding the toString() method.

**For example:**

| Test | Result |
|------|--------|
| 1 | manufacturer = Redmi |
|   | operating_system = Andriod |
|   | color = Blue |
|   | cost = 34000 |

**Answer:** (penalty regime: 0 %)

```
2   import java.lang.Math;
3   class Mobile{
4       private String MF;
5       private String OS;
6       public String color;
7       private int cost;
8       public Mobile(String MF,String OS,String color,int cost){
9           this.MF=MF;
10          this.OS=OS;
11          this.color=color;
12          this.cost=cost;
13      }
14      public void setMF(String MF){
15          this.MF=MF;
16      }
17      public String getMF(){
18          return MF;
19      }
20      public void setOS(String OS){
21          this.OS=OS;
22      }
23      public String getOS(){
24          return OS;
25      }
26      public void setcolor(String color){
27          this.color=color;
28      }
29      public String getcolor(){
30          return color;
31      }
32      public void setcost(int cost){
33          this.cost=cost;
34      }
35      public int getcost(){
36          return cost;
37      }
38      public String toString(){
39          return "manufacturer = "+MF +"\n"+
40          "operating_system = "+OS+"\n"+
41          "color = "+color+"\n"+
```

```
42            "cost = "+cost;
43        }
44    }
45    public class moblietest{
46        public static void main(String arg[]){
47            Mobile M=new Mobile("Redmi","Andriod","Blue",34000);
48            System.out.println(M);
49        }
50    }
51
52
53
```

| | Test | Expected | Got | |
|---|---|---|---|---|
| ✓ | 1 | manufacturer = Redmi<br>operating_system = Andriod<br>color = Blue<br>cost = 34000 | manufacturer = Redmi<br>operating_system = Andriod<br>color = Blue<br>cost = 34000 | ✓ |

Passed all tests! ✓

Jump to...