Status	Finished
Started	Sunday, 6 October 2024, 8:58 PM
Completed	Sunday, 6 October 2024, 9:43 PM
Duration	45 mins 4 secs

Question **1**

Correct

Marked out of 5.00

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 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

Answer: (penalty regime: 0 %)

```
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 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	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	✓

Passed all tests! ✓

Question **2**

Correct

Marked out of 5.00

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 = πr^2

Circumference = $2\pi r$

Input:

2

Output:

Area = 12.57
Circumference = 12.57

For example:

Test	Input	Result
1	4	Area = 50.27 Circumference = 25.13

Answer: (penalty regime: 0 %)

Reset answer

```
import java.util.*;
class Circle
{
    private double radius;
    public Circle(double radius){
        // set the instance variable radius
        setRadius(radius);

    }
    public void setRadius(double radius){
        // set the radius
        this.radius=radius;

    }
    public double getRadius()    {
        // return the radius
        return radius;

    }
    public double calculateArea()  { // complete the below statement
       return Math.PI*radius*radius;

    }
    public double calculateCircumference()    {
        // complete the statement
       return  2*Math.PI*radius;
    }
}
class prog{
    public static void main(String[] args)  {
        int r;
        Scanner sc= new Scanner(System.in);
        r=sc.nextInt();
        Circle c= new Circle(r);
        System.out.println("Area = "+String.format("%.2f", c.calculateArea()));
        // invoke the calculatecircumference method
        System.out.println("Circumference = "+String.format("%.2f", c.calculateCircumference()));

    }
}

```

	Test	Input	Expected	Got	
✓	1	4	Area = 50.27 Circumference = 25.13	Area = 50.27 Circumference = 25.13	✓
✓	2	6	Area = 113.10 Circumference = 37.70	Area = 113.10 Circumference = 37.70	✓
✓	3	2	Area = 12.57 Circumference = 12.57	Area = 12.57 Circumference = 12.57	✓

Passed all tests! ✓

Question **3**

Correct

Marked out of 5.00

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 %)

```
import java.lang.Math;
class Mobile{
    private String MF;
    private String OS;
    public String color;
    private int cost;
    public Mobile(String MF,String OS,String color,int cost){
        this.MF=MF;
        this.OS=OS;
        this.color=color;
        this.cost=cost;
    }
    public void setMF(String MF){
        this.MF=MF;
    }
    public String getMF(){
        return MF;
    }
    public void setOS(String OS){
        this.OS=OS;
    }
    public String getOS(){
        return OS;
    }
    public void setcolor(String color){
        this.color=color;
    }
    public String getcolor(){
        return color;
    }
    public void setcost(int cost){
        this.cost=cost;
    }
    public int getcost(){
        return cost;
    }
    public String toString(){
        return "manufacturer = "+MF +"\n"+
        "operating_system = "+OS+"\n"+
        "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 operating_system = Andriod color = Blue cost = 34000	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000	✓

Passed all tests! ✓

◄ Lab-04-MCQ

Jump to...

Number of Primes in a specified range ►