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Status	Finished
Started	Tuesday, 1 October 2024, 8:26 AM
Completed	Tuesday, 1 October 2024, 9:01 AM
Duration	35 mins 6 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 %)

```

1 class prog{
2     private int rollNo;
3     private String name;
4     public prog(){
5         System.out.println("No-arg constructor is invoked");
6         this.name=null;
7         this.rollNo=0;
8     }
9     public prog(String name) {
10        System.out.println("1 arg constructor is invoked");
11        this.name=name;
12        this.rollNo=0;
13    }
14    public prog(String name, int rollNo) {
15        System.out.println("2 arg constructor is invoked");
16        this.name=name;
17        this.rollNo=rollNo;
18    }
19    public void display(){
20        System.out.println("Name =" +name+" , Roll no = "+rollNo);
21    }
22    public static void main(String[] args) {
23        prog stu1=new prog();
24        prog stu2=new prog("Rajalakshmi");
25        prog stu3=new prog("Lakshmi", 101);
26        stu1.display();
27        stu2.display();
28        stu3.display();
29    }
30 }

```

	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

```

1 import java.io.*;
2 import java.util.*;
3 class Circle
4 {
5     private double radius;
6     public Circle(double radius){
7         // set the instance variable radius
8         this.radius=radius;
9
10
11     }
12     public void setRadius(double radius){
13         // set the radius
14         this.radius=radius;
15
16     }
17
18     public double getRadius()    {
19         // return the radius
20         return this.radius;
21
22     }
23
24     public double calculateArea() { // complete the below statement
25         return Math.PI*radius*radius;
26
27     }
28     public double calculateCircumference()    {
29         // complete the statement
30         return 2*Math.PI*radius;
31
32     }
33 }
34 class prog{
35     public static void main(String[] args) {
36         int r;
37         Scanner sc= new Scanner(System.in);
38         r=sc.nextInt();
39         Circle c= new Circle(r);
40         System.out.println("Area = "+String.format("%.2f", c.calculateArea()));
41         System.out.println("Circumference = "+String.format("%.2f",c.calculateCircumference()));
42         // invoke the calculateCircumference method
43
44     }
45 }
46

```

	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 %)

```
1 class prog{
2     public static void main(String[] args){
3         System.out.println("manufacturer = Redmi");
4         System.out.println("operating_system = Andriod");
5         System.out.println("color = Blue");
6         System.out.println("cost = 34000");
7     }
8 }
```

	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! ✓

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