

[Dashboard](#) / [My courses](#) / [CS23333-OOPUI-2023](#) / [Lab-04-Classes and Objects](#) / [Lab-04-Logic Building](#)

<b>Status</b>	Finished
<b>Started</b>	Wednesday, 2 October 2024, 6:10 PM
<b>Completed</b>	Wednesday, 2 October 2024, 6:35 PM
<b>Duration</b>	24 mins 55 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 public class Student {
2     private String name;
3     private int rollno;
4     public Student() {
5         System.out.println("No-arg constructor is invoked");
6     }
7
8     public Student(String name) {
9         this.name = name;
10        System.out.println("1 arg constructor is invoked");
11    }
12
13    public Student(String name, int rollno) {
14        this.name = name;
15        this.rollno = rollno;
16        System.out.println("2 arg constructor is invoked");
17    }
18
19    public void display() {
20        System.out.println("Name =" + name + " , Roll no = " + rollno);
21    }
22
23    public static void main(String[] args) {
24        Student s1 = new Student();
25        Student s2 = new Student("Rajalakshmi");
26        Student s3 = new Student("Lakshmi", 101);
27        s1.display();
28        s2.display();
29        s3.display();
30    }
31 }

```

	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 =  $\pi r^2$

Circumference =  $2\pi r$

Input:

2

Output:

Area = 12.57

Circumference = 12.57

For example:

Test	Input	Result
1	4	Area = 50.27 Circumference = 25.13

Answer: (penalty regime: 0 %)

Reset answer

```

1 import java.util.Scanner;
2
3 public class Circle {
4     private double radius;
5
6     public Circle(double radius) {
7         this.radius = radius;
8     }
9
10    public double getArea() {
11        return Math.PI * radius * radius;
12    }
13
14    public double getCircumference() {
15        return 2 * Math.PI * radius;
16    }
17
18    public static void main(String[] args) {
19        Scanner scanner = new Scanner(System.in);
20        Circle circle = new Circle(scanner.nextDouble());
21
22        System.out.println("Area = " + String.format("%.2f", circle.getArea()));
23        System.out.println("Circumference = " + String.format("%.2f", circle.getCircumference()));
24    }
25

```

	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

Incorrect

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 public class Mobile {
2     private String manufacturer;
3     private String operating_system;
4     public String color;
5     private int cost;
6
7     public Mobile(String manufacturer, String operating_system, String color, int cost) {
8         this.manufacturer = manufacturer;
9         this.operating_system = operating_system;
10        this.color = color;
11        this.cost = cost;
12    }
13
14    public void setManufacturer(String manufacturer) {
15        this.manufacturer = manufacturer;
16    }
17
18    public String getManufacturer() {
19        return manufacturer;
20    }
21
22    public void setOperatingSystem(String operating_system) {
23        this.operating_system = operating_system;
24    }
25
26    public String getOperatingSystem() {
27        return operating_system;
28    }
29
30    public void setColor(String color) {
31        this.color = color;
32    }
33
34    public String getColor() {
35        return color;
36    }
37
38    public void setCost(int cost) {
39        this.cost = cost;
```

```
40     }
41
42     public int getCost() {
43         return cost;
44     }
45     @Override
46     public String toString() {
47         return "manufacturer = " + manufacturer + "\n" +
48             "operating_system = " + operating_system + "\n" +
49             "color = " + color + "\n" +
50             "cost = " + cost;
51     }
52 }
```

	Test	Expected	Got	
✖	1	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000	manufacturer = Redmi operating_system = Android color = Blue cost = 34000	✖

Your code must pass all tests to earn any marks. Try again.

Show differences

◀ Lab-04-MCQ

Jump to...

Number of Primes in a specified range ▶

//