

Status	Finished
Started	Monday, 7 October 2024, 12:50 PM
Completed	Monday, 7 October 2024, 12:52 PM
Duration	2 mins 12 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 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 import java.util.*;
2 class Student{
3     private String name;
4     private int rollNo;
5     public Student(){
6         System.out.println("No-arg constructor is invoked");
7         this.name=null;
8         this.rollNo=0;
9     }
10    public Student(String name){
11        System.out.println("1 arg constructor is invoked");
12        this.name=name;
13        this.rollNo=0;
14    }
15    public Student(String name,int rollNo){
16        System.out.println("2 arg constructor is invoked");
17        this.name=name;
18        this.rollNo=rollNo;
19    }
20    public void display(){
21        System.out.println("Name =" +(name!=null?name:"null")+" , Roll no = "+rollNo);
22    }
23 }
24 public class Main{
25     public static void main(String[] args){
26         Student stu1=new Student();
27         Student stu2=new Student("Rajalakshmi");
28         Student stu3=new Student("Lakshmi",101);
29         stu1.display();
30         stu2.display();
31         stu3.display();
32     }
33 }
```

	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! ✓

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.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    }
11    public void setRadius(double radius){
12        // set the radius
13        this.radius=radius;
14
15    }
16
17    public double getRadius()    {
18        // return the radius
19        return radius;
20
21    }
22
23    public double calculateArea() { // complete the below statement
24        return Math.PI*radius*radius;
25    }
26
27    public double calculateCircumference()    {
28        // complete the statement
29        return 2*Math.PI*radius;
30    }
31 }
32 class prog{
33     public static void main(String[] args) {
34         int radius;
35         Scanner sc= new Scanner(System.in);
36         radius=sc.nextInt();
37         Circle circle= new Circle(radius);
38         System.out.println("Area = "+String.format("%.2f", circle.calculateArea()));
39         // invoke the calculateCircumference method
40         System.out.println("Circumference = "+String.format("%.2f",circle.calculateCircumference()));
41     }
42 }
43 }
```

	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! ✓

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 Mobile{  
2     private String m;  
3     private String os;  
4     public String c;  
5     private int cost;  
6  
7     public Mobile(String m,String os,String c,int cost){  
8         this.m=m;  
9         this.os=os;  
10        this.c=c;  
11        this.cost=cost;  
12    }  
13    public void setManufacturer(String m){  
14        this.m=m;  
15    }  
16    public void setOperatingSystem(String os){  
17        this.os=os;  
18    }  
19    public void setColor(String color){  
20        this.c=c;  
21    }  
22    public void setCost(int cost){  
23        this.cost=cost;  
24    }  
25  
26    public String getManufacturer(){  
27        return m;  
28    }  
29    public String getOperatingSystem(){  
30        return os;  
31    }  
32    public String getColor(){  
33        return c;  
34    }  
35    public int getCost(){  
36        return cost;  
37    }  
38  
39    @Override  
40    public String toString(){  
41        return "manufacturer = "+ m +"\n" +  
42            "operating_system = " + os + "\n" +  
43            "color = " + c + "\n" + "cost = " + cost;  
44    }  
45 }  
46 public class Prog{  
47     public static void main(String[] args){  
48         Mobile mobile=new Mobile("Redmi","Andriod","Blue",34000);  
49         System.out.println(mobile);  
50     }  
51 }  
52
```

	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 ▶