CS23333-Object Oriented Programming Using Java-2023

Quiz navigation

Status	Finished
Started	Monday, 30 September 2024, 5:16 PM
Completed	Monday, 30 September 2024, 6:02 PM
Duration	45 mins 55 secs

Question 1

Correct

Marked out of 5.00

☐⚑ Flag question

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 %)

```java
public class Student{
    private String name;
     private int rollno;
    public Student(){
       System.out.println("No-arg constructor is invoked");
        this.name=null;
         this.rollno=0;
      }
    public Student(String name){
       System.out.println("1 arg constructor is invoked");
      this.name=name;
         this.rollno=0;
      }
    public Student(String name,int rollno){
       System.out.println("2 arg constructor is invoked");
      this.name=name;
         this.rollno=rollno;
      }
    public void display(){
       System.out.println("Name ="+name+" , Roll no = "+rollno);
      }
    public static void main(String args[]){
       Student student1=new Student();
       Student student2=new Student("Rajalakshmi");
       Student student3=new Student("Lakshmi",101);
        student1.display();
        student2.display();
        student3.display();
      }
}
```

Test	Expected	Got
1	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked

	Test	Expected	Got	
		Name =null , Roll no = 0	Name =null , Roll no = 0	
		Name =Rajalakshmi , Roll no = 0	Name =Rajalakshmi , Roll no = 0	
		Name =Lakshmi , Roll no = 101	Name =Lakshmi , Roll no = 101	

Passed all tests!

Question **2**

Correct

Marked out of 5.00

☐ ⚐ Flag question

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 %)

```java
public class Mobile{
   private String manufacturer;
   private String operating_system;
    private int cost;
    public String color;
   public Mobile(String manufacturer,String operating_system,String color,int cost){
      this.manufacturer=manufacturer;
       this.operating_system=operating_system;
        this.color=color;
         this.cost=cost;
     }
   public void setmanufacturer(String manufacturer){
      this.manufacturer=manufacturer;
     }
   public String getmanufacturer(){
       return manufacturer;
     }
   public void setoperatingsystem(String operating_system){
      this.operating_system=operating_system;
     }
   public String getoperatingsystem(){
      return operating_system;
     }
   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 = "+manufacturer+"\n"+"operating_system =
"+operating_system+"\n"+"color = "+color+"\n"+"cost = "+cost;
     }
   public static void main(String args[]){
      Mobile mobile=new Mobile("Redmi","Andriod","Blue",34000);
       System.out.println(mobile.toString());
     }
}
```

	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!

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

```java
import java.io.*;
import java.util.Scanner;
class Circle
{
    private double radius;
    public Circle(double radius){
        this.radius=radius;


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


    }
    public double getRadius()   {
        return radius;


    }
    public double calculateArea() {
      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!

Save the state of the flags

Finish review

	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!