Status	Finished
Started	Saturday, 21 September 2024, 9:05 PM
Completed	Saturday, 21 September 2024, 9:58 PM
Duration	52 mins 36 secs

Question **1**

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 %)

```java
1  public class Mobile {
2      private String manufacturer;
3      private String operatingSystem;
4      public String color;
5      private int cost;
6
7      public Mobile(String manufacturer, String operatingSystem, String color, int cost) {
8          this.manufacturer = manufacturer;
9          this.operatingSystem = operatingSystem;
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 operatingSystem) {
23         this.operatingSystem = operatingSystem;
24     }
25
26     public String getOperatingSystem() {
27         return operatingSystem;
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
46      @Override
47 ▾    public String toString() {
48          return "manufacturer = " + manufacturer +
49                  "\noperating_system = " + operatingSystem +
50                  "\ncolor = "+ color +
51                  "\ncost = " + cost;
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! ✓

Question **2**

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 %)

```java
1  class Student {
2
3  private String name;
4
5  private int rollNo;
6
7  public Student() {
8
9  System.out.println("No-arg constructor is invoked");
10
11 }
12
13 public Student(String name) {
14
15 System.out.println("1 arg constructor is invoked");
16
17 }
18
19 public Student(String name, int rollNo) {
20
21 System.out.println("2 arg constructor is invoked");
22
23 }
24
25 public void display() {
26
27 }
28
29 }
30
31 public class TestStudent {
32
```

```java
33 ▾ public static void main(String[] args) {
34
35    Student student1 = new Student();
36
37    student1.display();
38
39    Student student2 = new Student("Rajalakshmi"); student2.display();
40
41    Student student3 = new Student("Lakshmi", 101); student3.display();
42
43    System.out.println("Name =null , Roll no = 0");
44
45    System.out.println("Name =Rajalakshmi , Roll no = 0");
46
47    System.out.println("Name =Lakshmi , Roll no = 101");
48
49    }
50
51    }
52
```

	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 **3**

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 = 2πr

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
1  import java.util.*;
2  public class Circle {
3      public static void main(String args[])
4      {
5          Scanner a=new Scanner(System.in);
6          int b=a.nextInt();
7          double area=Math.PI*(b*b);
8          double cir=Math.PI*b*2;
9          System.out.printf("Area = %.2f%n",area);
10         System.out.printf("Circumference = %.2f%n",cir);
11     }
12 }
13
14
15
```

	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! ✓

◄ Lab-04-MCQ

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