



LABORATORY WORK BOOK

Name of the Student : Mateen. MD

Class : CSE - C Semester : I

Course Code : AC3D03 Course Name : OOP, JAVA LAB

Name of the Course Faculty : Dr. Y.D. Dwivedi Faculty ID : IARE - 10650

Exercise Number : 13 Week Number : 13 Date : 19/9/2024

| S. No. | Exercise Number | EXERCISE NAME | MARKS AWARDED | | | | | |
|--------|-----------------|---------------|---------------------|------------------------|---|----------------------------|-------------------------------|----------------|
| | | | Aim/ Preparation | Algorithm / Procedure | | Source Code | Program Execution | Viva - Voce |
| | | | | Performance in the Lab | | Calculations and Graphs | Results and Error Analysis | |
| | | | 4 | 4 | | 4 | 4 | 4 |
| 1 | 13.1 | Circle class | 4 | 2 | 2 | 4 | 4 | 4 |
| 2 | 13.2 | Person class | | | | | | |
| 3 | 13.3 | point 2D | | | | | | |
| 4 | | | | | | | | |
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Signature of the Student

Signature of the Faculty

13.1 Circle class

```
Public class Circle {
```

```
    Private double radius;
```

```
    Private double color;
```

```
    Public Circle() {
```

```
        radius = 1.0;
```

```
        color = "red";
```

```
    }
```

```
    Public Circle (double radius) {
```

```
        this.radius = radius;
```

```
        this.color = color;
```

```
    }
```

```
    Public double get radius() {
```

```
        return radius;
```

```
    Public void set Radius (double radius) {
```

```
        this.radius = radius;
```

```
    Public double radius getArea() {
```

```
        return Math.PI * radius * radius;
```

```
    }
```

```
}
```

Result

Circle [radius = 2.0, color = blue]

Area: 12.56637.

13.2 Person Class

```
public class person {  
    private String name;  
    private String address;  
  
    public person (String name, String address) {  
        this.name = name;  
        this.address = address;  
    }  
  
    public String getName () {  
        return name;  
    }  
  
    public String getAddress () {  
        return address;  
    }  
  
    public void setAddress (String address) {  
        this.address = address;  
    }  
}
```

Result :-

person (name = JohnDoe , address = 123 Main st.)

13.3 Point 2D

```
public class point2D {
```

```
    private float x;
```

```
    private float y;
```

```
    public point2D(float x, float y) {
```

```
        this.x = x;
```

```
        this.y = y;
```

```
    }
```

```
    public point2D() {
```

```
        this(0.0f, 0.0f);
```

```
    }
```

```
    public void setX(float x) {
```

```
        this.x = x;
```

```
    }
```

```
    public float getY() {
```

```
        return y;
```

```
    }
```

```
    public float getX() {
```

```
        return new float[] {x, y};
```

```
    }
```

```
    public void setXY() {
```

```
        this.x = x; this.y = y;
```

```
    }
```