# GAURAV KISHOR PATIL

# ROLL NO: 54

# DIV:2 BATCH:C

| Experiment No. 5 |
| --- |
| Constructor Overloading. |
| Date of Performance:25/08/23 |
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**Aim :-** To use concept of constructor and constructor overloading in java.

**Objective :-** To write a program using constructor to initialize object of a class to represent

student information.

**Theory :-** Constructor overloading is a concept of having more than one contructor with different parameters list, in such a way so that each constructor performs a different task. they are arranged in a way that each constructor performs a different task. They are differentiated by the compiler by the number of parameters in the number of parameters in the list and their types.

**Code :-**

1)

```
class Room {
    float length;
    float breadth;

    Room(float x, float y) {
        length = x;
        breadth = y;
    }

    Room(float x) {
        length = breadth = x;
    }

    float Area() {
        return length * breadth;
    }
}

class Constructordemo1 {
    public static void main(String[] args) {
        Room r1 = new Room(2.3F, 9.6F);
        Room r2 = new Room(10.0F);
        float area1 = r1.Area();
        float area2 = r2.Area();
        System.out.println("Area 1 = " + area1);
        System.out.println("Area 2 = " + area2);

    }
}
```

```
PS G:\Programs\JAVA>  &
eview' '-XX:+ShowCodeDet
Roaming\Code\User\worksp
jdt_ws\JAVA_e16f3d66\bin
Area 1 = 22.08
Area 2 = 100.0
PS G:\Programs\JAVA>
```

2)

```java
class area {
    area(int r) {
        System.out.println("Area of circle is " + 3.14 * r * r);

    }

    area(double l, double b) {
        System.out.println("Area of triangle is " + 0.5 * l * b);
    }

    area(float l, float b) {
        System.out.println("Area of rectangle is " + l * b);
    }

}

class constructors {
    public static void main(String[] args) {
        area r1 = new area(2);
        area r2 = new area(2.0, 3.0);
        area r3 = new area(2.0F, 3.0F);
    }
}
```

```
Roaming\Code\User\workspace
jdt_ws\JAVA_e16f3d66\bin' '
Area of circle is 12.56
Area of triangle is 3.0
Area of rectangle is 6.0
PS G:\Programs\JAVA>
```

**Conclusion :-**

To summarize, constructor overloading in Java refers to the practice of defining multiple constructors within a class, each with a different number or type of parameters. This enables you to create objects in different ways, depending on the arguments passed during object instantiation. Constructor overloading is particularly useful for providing various options for initializing object states without creating multiple classes. It enhances code flexibility, reusability, and readability by accommodating different scenarios through the appropriate constructor selection.