

Name: Samiksha Thakur

Roll No:57

Practical no: 04

CODE: Constructor overloading

```
package JAVA57;

public class Perimeter {
    int length;
    int width;

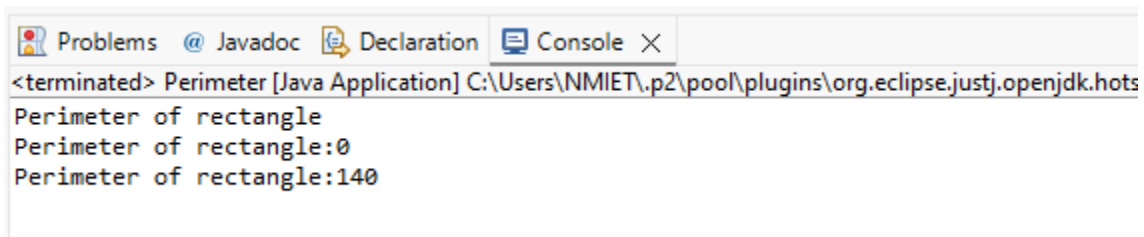
    Perimeter()
    {
        System.out.println("Perimeter of rectangle");
    }

    Perimeter(int l,int w)
    {
        length=l;
        width=w;
    }

    public void m1()
    {
        int i=2*(length+width);
        System.out.println("Perimeter of rectangle:"+i);
    }

    public static void main(String args[])
    {
        Perimeter p=new Perimeter();
        Perimeter pe=new Perimeter(20,50);
        p.m1();
        pe.m1();
    }
}
```

Output:

A screenshot of the Eclipse IDE's console window. The window has tabs for 'Problems', '@ Javadoc', 'Declaration', and 'Console'. The 'Console' tab is active, showing the output of the Java application. The output consists of three lines: '<terminated> Perimeter [Java Application] C:\Users\NMIET\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64.jdk\bin\java.exe', 'Perimeter of rectangle', and 'Perimeter of rectangle:140'. The first line is truncated in the image.

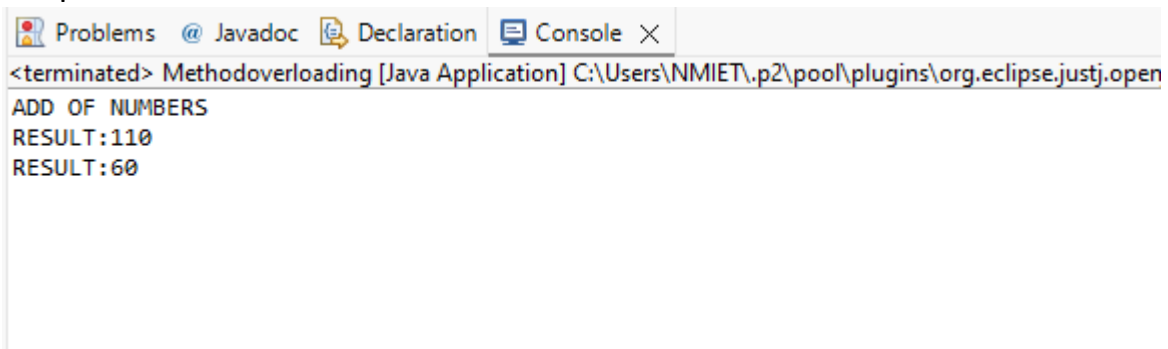
```
<terminated> Perimeter [Java Application] C:\Users\NMIET\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.jdk\bin\java.exe
Perimeter of rectangle
Perimeter of rectangle:0
Perimeter of rectangle:140
```

## CODE: Method Overloading

```
package JAVA57;

public class Methodoverloading {
    public void addition()
    {
        System.out.println("ADD OF NUMBERS");
    }
    public void addition(int l,int t)
    {
        int c=l+t;
        System.out.println("RESULT:"+c);
    }
    public void addition(int a,int b,int c)
    {
        int s=a+b+c;
        System.out.println("RESULT:"+s);
    }
    public static void main(String args[]) {
        Methodoverloading m1= new Methodoverloading();
        m1.addition();
        m1.addition(80,30);
        m1.addition(10,20,30);
    }
}
```

## Output:

The screenshot shows the Eclipse IDE's Console window. The title bar includes tabs for 'Problems', 'Javadoc', 'Declaration', and 'Console'. The console text shows the execution of the Java application, displaying the output of the overloaded methods. The output is as follows:

```
<terminated> Methodoverloading [Java Application] C:\Users\NMIET\.p2\pool\plugins\org.eclipse.justj.open
ADD OF NUMBERS
RESULT:110
RESULT:60
```

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Practical no: 02

CODE:

```
package JAVA57;
import java.util.Scanner;

public class Calci {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("1)Add");
        System.out.println("2)Subtract");
        System.out.println("3)Multiply");
        System.out.println("4)Divide");
        System.out.println("5)Factorial");
        System.out.println("6)Area of Circle");
        System.out.print("Enter your choice: ");
        int choice = sc.nextInt();

        double s, t;
        switch (choice) {
            case 1:
                System.out.print("Enter numbers: ");
                s = sc.nextDouble();
                t = sc.nextDouble();
                System.out.println("Sum = " + (s+ t));
                break;
            case 2:
                System.out.print("Enter numbers: ");
                s = sc.nextDouble();
                t = sc.nextDouble();
                System.out.println("Difference = " + (s- t));
                break;
            case 3:
                System.out.print("Enter numbers: ");
                s = sc.nextDouble();
                t = sc.nextDouble();
                System.out.println("Product = " + (s* t));
                break;
            case 4:
                System.out.print("Enter numbers: ");
                s = sc.nextDouble();
                t = sc.nextDouble();
                if (t!= 0)
                    System.out.println("Quotient = " + (s/ t));
                else
                    System.out.println("Cannot divide by zero");
                break;
            case 5:
```

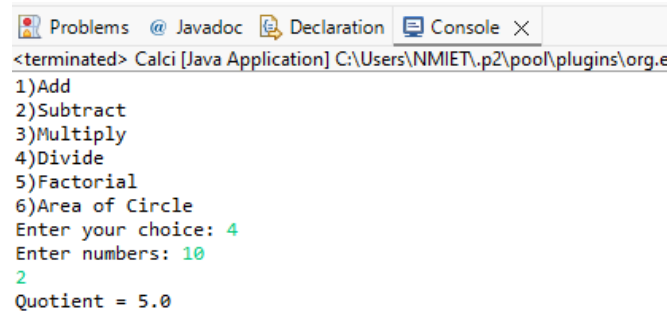
```

        System.out.print("Enter a number: ");
        int a = sc.nextInt();
        int fact = 1;
        for (int i = 1; i <= a; i++) {
            fact *= i;
        }
        System.out.println("Factorial = " + fact);
        break;
    default:
        System.out.println("Invalid choice");
    }

    sc.close();
}
}

```

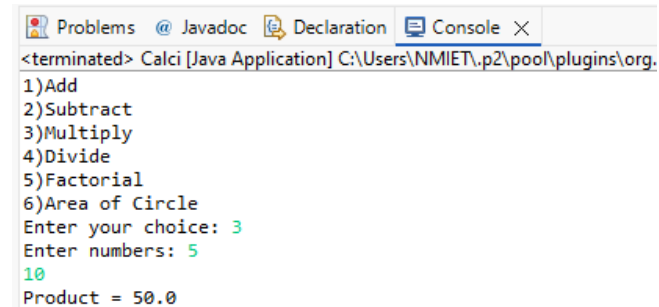
## Output:



```

Problems @ Javadoc Declaration Console X
<terminated> Calci [Java Application] C:\Users\NMIET\p2\pool\plugins\org.e
1)Add
2)Subtract
3)Multiply
4)Divide
5)Factorial
6)Area of Circle
Enter your choice: 4
Enter numbers: 10
2
Quotient = 5.0

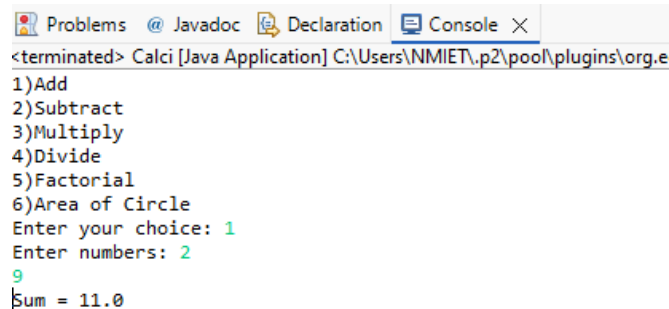
```



```

Problems @ Javadoc Declaration Console X
<terminated> Calci [Java Application] C:\Users\NMIET\p2\pool\plugins\org.e
1)Add
2)Subtract
3)Multiply
4)Divide
5)Factorial
6)Area of Circle
Enter your choice: 3
Enter numbers: 5
10
Product = 50.0

```



```

Problems @ Javadoc Declaration Console X
<terminated> Calci [Java Application] C:\Users\NMIET\p2\pool\plugins\org.e
1)Add
2)Subtract
3)Multiply
4)Divide
5)Factorial
6)Area of Circle
Enter your choice: 1
Enter numbers: 2
9
Sum = 11.0

```

Name: Samiksha Thakur

Roll No:57

Practical no :03

Code:

```
package JAVA57;
import java.util.Scanner;
public class Rectangle {

    double length, width, area;
    String colour;

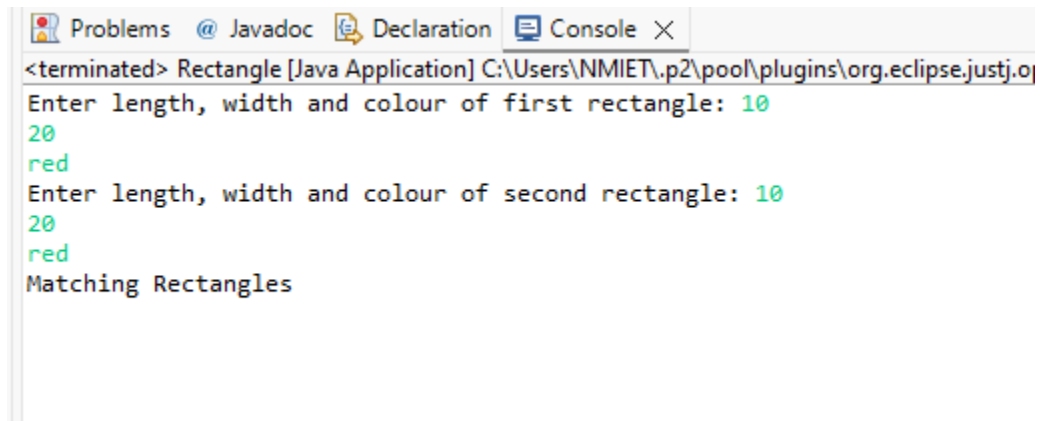
    void get_length(double l) {
        length = l;
    }
    void get_width(double w) {
        width = w;
    }
    void get_colour(String c) {
        colour = c;
    }
    void find_area() {
        area = length * width;
    }
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        Rectangle r = new Rectangle();
        System.out.print("Enter length, width and colour of first rectangle: ");
        r.get_length(sc.nextDouble());
        r.get_width(sc.nextDouble());
        r.get_colour(sc.next());
        r.find_area();

        Rectangle re = new Rectangle();
        System.out.print("Enter length, width and colour of second rectangle:");
        re.get_length(sc.nextDouble());
        re.get_width(sc.nextDouble());
        re.get_colour(sc.next());
        re.find_area();

        if (r.area == re.area && r.colour.equals(re.colour))
        {
            System.out.println("Matching Rectangles");
        } else {
            System.out.println("Non-matching Rectangle");
        }
        sc.close();
    }
}
```

Output:



The screenshot shows the Eclipse IDE's console window. The title bar includes tabs for 'Problems', 'Javadoc', 'Declaration', and 'Console'. The console output is as follows:

```
<terminated> Rectangle [Java Application] C:\Users\NMJET\p2\pool\plugins\org.eclipse.justj.o  
Enter length, width and colour of first rectangle: 10  
20  
red  
Enter length, width and colour of second rectangle: 10  
20  
red  
Matching Rectangles
```