

**WT LAB**

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**LAB-4**

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**1. Find the largest among 3 user entered nos. at the command prompt using Java.**

**CODE--**

```
1 public class Lab4one{
2     public static void main(String[] args) {
3         System.out.println("The command line arguments are");
4         String a = args[0];
5         String b = args[1];
6         String c = args[2];
7         int firstNo = Integer.parseInt(a);
8         int secondNumber = Integer.parseInt(b);
9         int thirdNumber = Integer.parseInt(c);
10
11         if(firstNo > secondNumber && firstNo > thirdNumber){
12             System.out.println("Greatest= "+firstNo);
13         }else if(secondNumber > firstNo && secondNumber > thirdNumber){
14             System.out.println("Greatest= "+secondNumber);
15         }else{
16             System.out.println("Greatest= "+thirdNumber);
17         }
18     }
19 }
```

**OUTPUT--**

```
PS C:\Users\anike\OneDrive\Desktop\4th sem zzzz\WT LAB\Lab 4> javac Lab4one.java
PS C:\Users\anike\OneDrive\Desktop\4th sem zzzz\WT LAB\Lab 4> java Lab4one 1 2 3
The command line arguments are
Greatest= 3
```

2. Accept 10 numbers from command line and check how many of them are even and how many odd.

#### CODE--

```
1 public class Lab4two {
2     public static void main(String[] args) {
3         for(int i =0; i< args.length; i++){
4             int num = Integer.parseInt(args[i]);
5             if(num%2 == 0){
6                 System.out.println("Even");
7             }else{
8                 System.out.println("Odd");
9             }
10        }
11    }
12
13 }
14
```

#### OUTPUT--

```
PS C:\Users\anike\OneDrive\Desktop\4th sem zzzz\WT LAB\Lab 4> javac Lab4two.java
PS C:\Users\anike\OneDrive\Desktop\4th sem zzzz\WT LAB\Lab 4> java Lab4two 1 2 3
Odd
Even
Odd
```

3. Write a program to calculate area according to user input, whether it is circle, square or triangle (Menu Driven).

CODE--

```
import java.util.Scanner;

public class Lab4three{
    Run | Debug
    public static void main(String[] args) {
        System.out.println("Choose menu: ");
        System.out.println("1. Circle");
        System.out.println("2. Square");
        System.out.println("3. Triangle");
        Scanner cin = new Scanner(System.in);
        int menu = cin.nextInt();
        Calculate cal = new Calculate();
        switch (menu) {
            case 1: {
                cal.Circle();
                break;
            }
            case 2: {
                cal.Square();
                break;
            }
            case 3: {
                cal.Triangle();
                break;
            }
            default: {
                System.out.println("Wrong menu...");
            }
        }
        cin.close();
    }
}

class Calculate {
    Scanner cin = new Scanner(System.in);

    void Triangle() {
        System.out.print("Enter height: ");
        int height = cin.nextInt();
        System.out.print("Enter breadth: ");
        int breadth = cin.nextInt();
        System.out.println("Area = " + 0.5 * height * breadth);
    }

    void Square() {
        System.out.print("Enter height: ");
        int height = cin.nextInt();
        System.out.println("Area = " + height * height);
    }

    void Circle() {
        System.out.print("Enter radius: ");
        int radius = cin.nextInt();
        System.out.println("Area = " + 3.14 * radius * radius);
    }
}
```

## OUTPUT--

### ◆ FOR circle

```
Choose menu:
1. Circle
2. Square
3. Triangle
1
Enter radius: 2
Area = 12.56
```

### ◆ For Triangle

```
Choose menu:
1. Circle
2. Square
3. Triangle
3
Enter height: 5
Enter breadth: 7
Area = 17.5
```

### ◆ For Square

```
Choose menu:
1. Circle
2. Square
3. Triangle
2
Enter height: 2
Area = 4
```

4. Write a class file – box with three data members (length, width, height) and a method volume() . Also implement the application class Demo where an object of the box class is created with user entered dimensions and volume is printed.

## CODE--

```
import java.util.Scanner;
public class Lab4four
{
    Run | Debug
    public static void main(String args[])
    //Aniket Chatterjee . 2005783
    { Box aniket=new Box();
        System.out.println("Enter length: ");
        Scanner input =new Scanner(System.in);
        int length=input.nextInt();
        int breadth=input.nextInt();
        int height=input.nextInt();
        int res=aniket.Volume(length,breadth,height);
        System.out.println("Volume is : "+ res);
        System.out.println("Three input parameters are: "+length+" "+breadth+" "+height);
    }
}
class Box{
    int Volume(int a,int b,int c)
    {
        int result=a*b*c;
        return result;
    }
}
```

OUTPUT IN THE NEXT SLIDE

**OUTPUT--**

```
Enter length:
34
56
76
Volume is : 144704
Three input parameters are: 34 56 76
```

5. Write a program which will overload the area () method and display the area of a circle, triangle and square as per user choice and user entered dimensions.

**CODE--**

```
class OverloadDemo
{
    void area(float x)
    {
        System.out.println("the area of the square is "+Math.pow(x, 2)+" sq units");
    }
    void area(float x, float y)
    {
        System.out.println("the area of the rectangle is "+x*y+" sq units");
    }
    void area(double x)
    {
        double z = 3.14 * x * x;
        System.out.println("the area of the circle is "+z+" sq units");
    }
}

class Lab4five
{
    Run | Debug
    public static void main(String args[])
    {
        OverloadDemo ob = new OverloadDemo();
        ob.area(5);
        ob.area(11,12);
        ob.area(2.5);
    }
}
```

**OUTPUT--**

```
the area of the square is 25.0 sq units
the area of the rectangle is 132.0 sq units
the area of the circle is 19.625 sq units
```