Lab 4 .Build a Java programming for finding areas of circle,rectangle,triangle(three sides given) using constructor overloading and method overloading techniques.The data members have to be passed from main to class and hide the data members in the class Develop three objects using parameterized constructor overloading and print the results using toString() .

```
package method_overloading;

//Method and constructor overloading

class OverLoad {
private double radius,length,breadth,side1,side2,side3,s,area;
private String name;

// using constructor overloading
OverLoad(double radius)
{
        this.radius=radius;
        area=Math.PI*this.radius*this.radius;
        name="circle";
}

OverLoad(float length, float breadth)
{
        this.length=length;
        this.breadth=breadth;
        area=this.length*this.breadth;
        name="rectangle";
}

OverLoad(float side1, float  side2, float  side3) {
        this.side1=side1;
        this.side2=side2;
        this.side3=side3;
        float s=(side1+ side2+ side3)/2;
        name="triangle";
        area=Math.sqrt(s*(s-side1)*(s-side2)*(s-side3));

}

public String toString()
{
        return "Area of "+name+" is "+ String.format("%.2f",area);
}

}
public class method_overloading1{
public static void main(String args[]) {
   OverLoad c = new OverLoad(5.1f);
```

```
   OverLoad r = new OverLoad(5.1f, 8.12f);
   OverLoad t = new OverLoad(6.2f, 12.5f,16.5f);

   System.out.println(c);
   System.out.println(r);
   System.out.println(t);
}
}
```

Area of circle is 81.71
Area of rectangle is 41.41
Area of triangle is 33.55

Ex_Lab 4. Build a Java programming for finding greatest of three, four and five numbers by creating a class namely Greatest using constructor overloading and method overloading techniques. The data members (one,two, three, four and five) have to be passed from main class (namely Main_Class) to the class Greatest and hide all the data members in the class. Develop three objects namely g3, g4 and g5 using parameterized constructor overloading and print the results using toString().