LAB PROGRAM-4.

```
import java.util.Scanner;
abstract class shape{
    double a,b;
    abstract void printArea();
}

class rectangle extends shape{
    void getdata(double x, double y){
    a=x;
    b=y; }

    void printArea(){
        System.out.println("Area of rectangle = "+(a*b)); }
}

class Triangle extends shape{
    void getdata(double x, double y){
        a=x;
        b=y; }

    void printArea(){
        double area = 0.5*a*b;
        System.out.println("Area of Triangle = "+ area); }
}

class circle extends shape{
    ~~double~~ void getdata(double x){
            a=x; }

    void printArea(){
        double area = 3.14*a*a;
        System.out.println("Area of circle = "+ area); }
}
```

```
public class Main {
    public static void main (String [] args) {
        Scanner scan = new Scanner (System.in);
        rectangle r = new rectangle ();
        Triangle t = new Triangle ();
        circle c = new circle ();
        System.out.println("1. Rectangle \n 2. Triangle \n 3. Circle \n Enter
                your choice: ");
    ch = scan. nextInt();
    switch (ch) {
            case 1: System.out.println(" Enter length & breadth ");
                double l = scan.nextDouble();
                double b = scan.nextDouble();
                r.getdata (l, b);
                r.printArea ();
                break;

            case 2: System.out.println(" Enter base & height: ");
                double b = scan.nextDouble ();
                double h = scan.nextDouble ();
                t.getdata (b, h);
                t.printArea (b, h);
                break;

            case 3: System.out.println(" Enter radius ");
                double r1 = scan.nextDouble();
                c.getdata (r1);
                c.printArea (r1);
                break
        default: System.out.println ("Invalid Input");
    }
}
```