1BM19CS167
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lab Program 4

```
import java.util.*;
abstract class shape
{
    int b,h;
    shape (int b, int h)
    {
        this.b=b ;
        this.h=h ;
    }
    void printArea(){};
}
class Rectangle extends shape
{
    Rectangle (int b, int h)
    {
        super (b,h);
    }
    void printArea()
    {
        System.out.println("The area of the rectangle is: "+(b*h));
    }
}
class Triangle extends shape
{
    Triangle (int b, int h)
    {
        super (b,h);
    }
```

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```
void printArea()
{
  System.out.println("The area of the rectangle is : "+(b*h)/2);
}
}
class Circle extends Shape
  {
    Circle(int r)
    {
      super(0,r);
    }
  void printArea()
  {
    System.out.println("The area of the Circle is : "+(3.14*h*h));
  }
}
public class labprog4
{
  public static void main(String[]args)
{
    Scanner sc = new Scanner(System.in);
    int choice,bs,be;
    Rectangle rect = new Rectangle(10,20);
    Triangle t = new Triangle(10,5);
    Circle c = new Circle(10);
     rect.printArea();
     t.printArea();
     c.printArea();
```

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```
System.out.println("\n Select the figure : \n 1. Rectangle \n 2. Triangle
    \n 3. Circle \n 4. Exit ");
choice = sc.nextInt();
switch (choice)
{
  case 1 : System.out.println("Enter the breadth and height");
     br = sc.nextInt();
     he = sc.nextInt();
     Rectangle r1 = new Rectangle (br, he);
     r1.printArea();
     break;

case 2 : System.out.println(" Enter the length and height \n");
     br = sc.nextInt();
     he = sc.nextInt();
     Triangle t1 = new Triangle (br, he);
     t1.printArea();
     break;

case 3: System.out.println(" Enter the radius \n");
     br = sc.nextInt();
     Circle C1 = new Circle (br);
     C1.printArea();
     break;

case 4: System.exit(0);
     break;
  }
 }
}
```