Week 8

Program 1

Lab 4

```
import java.util.scanner;
abstract class shape {
Scanner sc= new Scanner (system.in);
int a;
int b;
shape()
{ System.out.print("_____*_____");
  }
abstract void printArea();
}

class rectangle extends shape {
void printArea() {
 System.out.println("\n ---------:77");
System.out.println("\n length of rectangle :");
  a= sc.nextInt();
System.out.println("\n breadth of rectangle :");
  b= sc.nextInt();
  int area = a*b;
System.out.print("\n Area of rectangle :");
  System.out.print(area);
}
}

Class triangle extends shape {
void printArea() {
System.out.println("\n ---------:77");
```

```
System.out.println("\n\n base of triangle:");
    a= sc.nextInt();
System.out.println("\n altitude of triangle:");
    b= sc.nextInt();
int area=(int)(a*b*(0.5));
System.out.println("\n Area of triangle:");
 System.out.print(Area);
    }
}

class circle extends shape {
  void printArea() {
 System.out.println("\n ---------:>>");
 System.out.println("\n\n radius of circle:");
    a= sc.nextInt();
 float pi=(float) 3.14;
 float area = a*a*pi;
 System.out.println("\n Area of circle"+ area);
  }
}

   class main {
   public static void main (string args[]) {
   rectangle s1 = new rectangle();
   triangle s2 = new triangle();
   circle s3 = new circle();
    s1.printArea();
    s2.printArea();
    s3.printArea();
    }
}
```

```
import java.util.Scanner;
abstract class shape{
Scanner sc=new Scanner(System.in);
int a;
int b;

shape(){System.out.print("—*—");
}
abstract void printArea();
}

class rectangle extends shape{
void printArea(){
System.out.println("\n ————————:>>");
System.out.println("\n length of rectangle:");
a=sc.nextInt();
System.out.println("\n breadth of rectangle:");
b=sc.nextInt();

int area=a*b;
System.out.print("\n Area of rectangle :");
System.out.print(area);
}
}

class triangle extends shape{
void printArea(){
```

```
class triangle extends shape{
void printArea(){
System.out.println("\n ----------:>>");
System.out.println("\n\n base of triangle:");
a=sc.nextInt();
System.out.println("\n altitude of triangle:");
b=sc.nextInt();
int area=(int)(a*b*(0.5));
System.out.print("\n Area of triangle :");
System.out.print(area);
}
}

class circle extends shape{
void printArea(){
System.out.println("\n ----------:>>");
System.out.println("\n\n radius of circle:");
a=sc.nextInt();
 float pi=(float)3.14;
float area=a*a*pi;
System.out.print("\n Area of circle : ");
System.out.print(area);
System.out.println("\n ----------:");
}
}
```

```
}
class main{
public static void main(String args[]){
rectangle s1=new rectangle();
triangle s2= new triangle();
circle s3=new circle();
s1.printArea();
s2.printArea();
s3.printArea();

}
}
```

```
C:\Users\cw\Desktop\OOJLAB\week8(Lab4&5)\program1(Lab4)>javac main.java

C:\Users\cw\Desktop\OOJLAB\week8(Lab4&5)\program1(Lab4)>java main
---✖-------✖-------✖---
 ------------------:>>

 length of rectangle:
3

 breadth of rectangle:
4

 Area of rectangle :12
 ------------------:>>


 base of triangle:
5

 altitude of triangle:
3

 Area of triangle :7
 ------------------:>>


 radius of circle:
6

 Area of circle : 113.04
 ------------------:
```