## Lab Program 4

	classmate  Date
9/12/122	
1140	Program 4: Develop a Java Program to create an
	abstract class named shape that contains two
	it is the same orange with frint Area ()
	integers and an empty method named frint Area () Provide three classes named Rectangle, Traingle are
	Circle such that each one of the closes entered the
	class shape. Each one of the classes contain only
	the self of land the state the orea of
	the method printArea () that prints the orea of
	the given shape.
	- Consideration of the control of th
	indept in the contract
	impost java. util. Scannes;
	abet act class shill
	abstract class shape
	abortant was brint Area ().
	alestract void print Asea ();
	class Reclarate extents Shape
	class Rectangle extents Shape
	La double oren; vord printAres () E
	word haintArea ()
	9
	System out, frintly ("The orea of the reactorigle is:"
	Sustem out brinto ("The orea of the reachange is"
	t and ):
	+ area);
	4.
	y
	class Priningle entends Shape
	Souble orea;

classmate void print Agea () system out fruitle ( "The area of the class lircle entends Shape area = (double) 3.14 \* a \* a; System. out printly ("The orea of the lircle is: "fares 3 class Main + Triangle t = new Triangle ( Virele c = new Circle(); Scanner ss = new Scanner (System. in) while (true)

	Page O
	e- l. Ind. Triangle In
	dystem. out frintlis ("1. reclarge   n2. Triangle   n 3. Circle   n + . Exit ");
	W V
	switch (op)  {  inx 1: System.out. frintln("Enler length and  breatth of rectangle");  r.a = SS. hentant();  3.b = SS. hentant();
	cose 1: System. out. frintly ").
	r. a = SS. hentant);
	s.b = ss. nentant(); n. fruit Area();
	break; out printles ("Enter base and
	boralt of triangle
	t.a = sst nextall (); t.b=ss.nextant ()
	t. print Ara();
	break;
	who 3: system out frintly ("Enter the radius
	of vircle ")."  E.a=SS.nentant();
	c. frintArea ()
	break;
	we 4: System. exit (0);
	V
	Sefault: System. out. fruitlin ("Wrong Choice !!");
2	
3	
- 1.7	

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	Output: - Choose the shape whose ones is to be calculated.
	l'hectangle
	3 Circle
	4. Enit
	Entra 1 11
	Enter length and breadth of Keclangle
	The area of the rectougle is: 200.00
	choose the shape whose area is to be calculated.
	1. Rectangle
	3. Circle
*4	4. Enit
	2
	Enter base and height of triangle
	20 10
-	The orea of the sectoring triangle is: 100.0
	thoose the Shape whose area is to be islusted
	1. Rectorgle
	2. Triangle
	3. Circle
	r. Exit
	3 - 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
	enter the radius of circle
	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
17	he area of the lirde is: 48.5

## **OUTPUT:**

```
Command Prompt
C:\Users\SHANM\Downloads>set path="C:\Program Files\Java\jdk-19\bin"
C:\Users\SHANM\Downloads>javac progg4.java
C:\Users\SHANM\Downloads>java Main4
Choose the shape whose area is to be calculated:
1.Rectangle
2.Triangle
3.Circle
4.Exit
Enter length and breadth of rectangle
The area of the rectangle is :200.0
Choose the shape whose area is to be calculated:
1.Rectangle
2.Triangle
3.Circle
4.Exit
Enter base and height of triangle
The area of the Triangle is :100.0
Choose the shape whose area is to be calculated:
1.Rectangle
2.Triangle
3.Circle
4.Exit
Enter radius of circle
The area of the Circle is :78.5
Choose the shape whose area is to be calculated:
1.Rectangle
2.Triangle
3.Circle
4.Exit
C:\Users\SHANM\Downloads>
```