22/1/24 LAB PROGRAM-4 Abetrait Shape Class Develop a java program to veste an abitral slage ramed Shape that contains two integers and an empty method named printeres (). Provide they classes named Restaugh, Triangle and link such that each one of the classes extents the class Chape. Sach one of the class contain only the method printfreal) that prints the ones of the que chape. A. PROGRAM: import java. rdil. Scarrer; lyten-out. printh (" Alea of Rectargle: "+")
(2 +y) + "Sque unit \n")

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	class Triangle extends Shape
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	{ super (2, y); y
	void pent Asea()
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	System. out. printlo ("Alex of Triangle!" +
or or	System. out. printle ("Alen of Triangle!" + (0.5 * x * y) + "equal with \n");
	3 - Charles de de de de la companya
	class Circle estends Shape
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	L'airle (double x) E super (x, 0); 3 void print Area()
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8 9	System out printly " Area of line" + (3.14+x+x)
10- 10-	System out printle Area of Circle: "+ (3.14+x+x)
	7
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Ŀ	class Shape Run
5	E public statu void main (Sting [Jargs)
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1	double x,y)
4 - E	Scanner input : new Scanner (System. in);
	booth and width
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	Rectargle rectangle = new Rectangle (2(, y);
	Sectangle Print Area ();
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```
import java.util.Scanner;
abstract class Shape
{
double x,y;
Shape(double x,double y)
{
this.x=x;
this.y=y;
}
abstract void printArea();
}
class Rectangle extends Shape
{
Rectangle(double x,double y)
{
super(x,y);
}
void printArea()
{
System.out.println("Area of Rectangle: " + (x*y) + " square units\n");
}
}
class Triangle extends Shape
{
Triangle(double x,double y)
{
super(x,y);
}
```

```
void printArea()
{
System.out.println("Area of Triangle: " + (0.5*x*y) + " square units\n");
}
}
class Circle extends Shape
{
Circle(double x)
{
super(x,0);
}
void printArea()
{
System.out.println("Area of Circle: " + (3.14*x*x) + " square units\n");
}
}
class ShapeRun
{
public static void main(String[] args)
{
double x,y;
Scanner input=new Scanner(System.in);
System.out.println("Enter length and width of Rectangle: ");
x=input.nextDouble();
y=input.nextDouble();
Rectangle rectangle=new Rectangle(x,y);
rectangle.printArea();
```

```
System.out.println("Enter height and base of Triangle: ");
x=input.nextDouble();
y=input.nextDouble();
Triangle triangle=new Triangle(x,y);
triangle.printArea();
System.out.println("Enter radius of Circle: ");
x=input.nextDouble();
Circle circle=new Circle(x);
circle.printArea();
input.close();
}
}
Output:
Enter length and width of Rectangle:
10
20
Area of Rectangle: 200.0 square units
Enter height and base of Triangle:
10
20
Area of Triangle: 100.0 square units
Enter radius of Circle:
10
Area of Circle: 314.0 square units
```