Develope a Java program to create abstract class named Shape that contains 2 Integers and an empty method named print Area(). Provide three classes named Rectangle, circle and Triangle such that each one of the classes extends the class Shape. Each one of the class contain only the method print Area() that print the area of the given shape.

1. Add class Input Scanner
2. add class Shape extend Input Scanner
3. Add class rectangle extends shape
4. Add class ~~rectangle~~ triangle extends shape
5. Add class circle extends shape

6. Add main class invoking main method with objects and calling input method and printarea method.

```
import java.util.Scanner;
abstract class InputScanner
{

    abstract void get_num();
}

abstract class shape extends Input Scanner
{

        int a, b;
        shape (int a, int b)
        {
            this.a = a;
            this.b = b;
        }

        shape (int a)
```

```java
        }
            this.a = a;
            this.b = 0;
        };
        abstract void printArea();
}

class rectangle extends shape
{
        rectangle (int a, int b)
        {
            super (a,b);
        }

        void get_dim()
        {
            System.out.println ("Enter dimensions of
            the rectangle");
            Scanner s = new Scanner (System.in);
            a = s.nextInt ();
            b = s.nextInt ();
        }
        void printArea ()
        {
            System.out.println ("Area of rectangle = "
            + (a*b));
        }
}

class Triangle extends shape
{
        Triangle (int a, int b)
        {
            super (a,b);
        }
```

```java
    void get_dim ()
    {
        System.out.println ("Enter the dimensions of
        the triangle (base and height");
        Scanner s = new Scanner (System.in);
        a = s.nextInt();
        b = s.nextInt();
    }
    void print Area()
    {
            System.out.println ("Area of triangle="
                    + (0.5 * a * b);
    }
}

class circle extends shape
{
        circle (int a)
        {
            super (a);
        }
        void get _dim()
        {
            System.out.println ("Enter the dimensions
            of the circle (radius)");
            Scanner s = new Scanner (System.in);
            a = s.nextInt();
        }
}

class shape Main
{
        public static void main (String args[])
        {
```

```
Rectangle r = new Rectangle (0,0);
Triangle t = new Triangle (0,0);
circle c = new circle (0);
r. get_dim();
t. get_dim();
c. get_dim();
r. print Area();
t. print Area();
c. print Area();
}
}
```

→ o/p

Enter dim of rectangle (length and breadth);
2 3
Enter dim of Triangle (base and height):
2 4
Enter dim of circle (radius)
3

Area of rectangle = 6
Area of triangle = 4
Area of circle = 23.25999

9/01/24