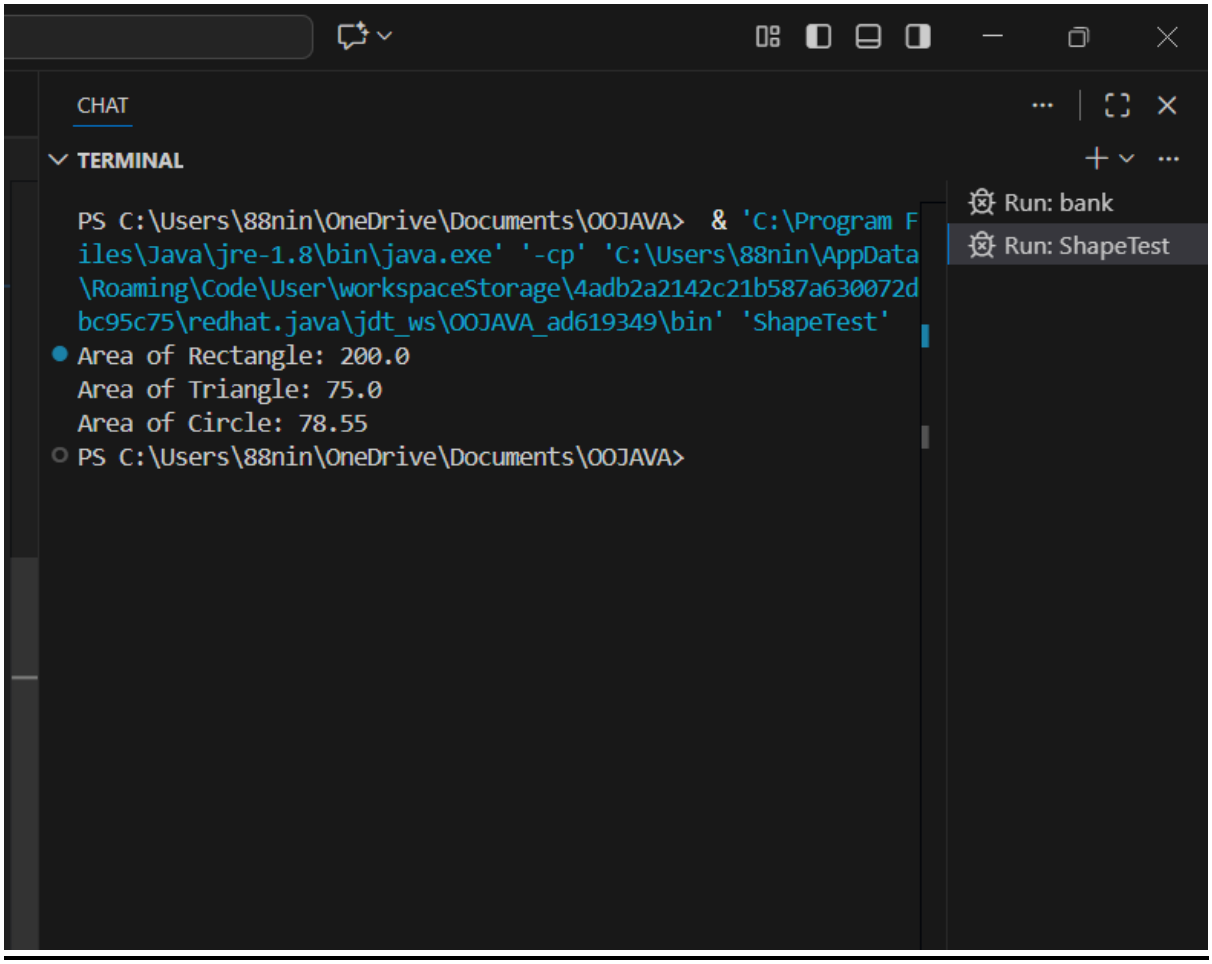
/* Develop a Java program to create an abstract class named Shape that contains two integers and an empty method named printArea(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contain only the method printArea() that prints the area of the given shape. */

```
abstract class Shape {
    int dim1, dim2;

    Shape(int a, int b) {
        dim1 = a;
        dim2 = b;
    }

    abstract void printArea();
}

class Rectangle extends Shape {
    Rectangle(int a, int b) {
        super(a, b);
    }

    void printArea() {
        double area = dim1 * dim2;
        System.out.println("Area of Rectangle: " + area);
    }
```

```
}

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

    void printArea() {
        double area = 0.5 * dim1 * dim2;
        System.out.println("Area of Triangle: " + area);
    }
}

class Circle extends Shape {
    Circle(int r) {
        super(r, 0);
    }

    void printArea() {
        double area = 3.142 * dim1 * dim1;
        System.out.println("Area of Circle: " + area);
    }
}

public class ShapeTest {
```

```
    public static void main(String[] args) {
        Shape rectangle = new Rectangle(10, 20);
        Shape triangle = new Triangle(10, 15);
        Shape circle = new Circle(5);

        rectangle.printArea();
        triangle.printArea();
        circle.printArea();
    }
}
```

OUTPUT:-


CHAT
TERMINAL
PS C:\Users\88nin\OneDrive\Documents\OOJAVA> & 'C:\Program Files\Java\jre-1.8\bin\java.exe' '-cp' 'C:\Users\88nin\AppData\Roaming\Code\User\workspaceStorage\4adb2a2142c21b587a630072dbc95c75\redhat.java\jdt_ws\OOJAVA_ad619349\bin' 'ShapeTest'
Area of Rectangle: 200.0
Area of Triangle: 75.0
Area of Circle: 78.55
PS C:\Users\88nin\OneDrive\Documents\OOJAVA>
Run: bank
Run: ShapeTest