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**\* Roll no.: 68**

**\* Batch: D**

**\* Assignment No: 4**

**Design a base class shape with two double type values and member function to**

**input the data and compute area() for calculating area of shape. Derive two classes**

**Triangle and Rectangle make compute area() as abstract function and redefine this function**

**in the derive class to suit their requirement .Write a program that accepts the dimension**

**of Triangle /Rectangle and display calculated area. Implement dynamic binding.**

**\*/**

**import java.util.Scanner;**

**import java.lang.System;**

**abstract class Shape**

**{**

**Double val1, val2;**

**void input()**

**{**

**Scanner s = new Scanner(System.in);**

**System.out.println("Enter First Value: ");**

**val1 = s.nextDouble();**

**System.out.println("Enter Second Value: ");**

**val2 = s.nextDouble();**

**}**

**abstract void compute\_area();**

**}**

**class Triangle extends Shape**

**{**

**void compute\_area()**

**{**

**double area;**

**area = 1.0f/2.0f\*val1\*val2;**

**System.out.println("Triangle Area: "+area);**

**}**

**}**

**class Rectangle extends Shape**

**{**

**void compute\_area()**

**{**

**double area;**

**area = val1\*val2;**

**System.out.println("Rectangle Area: "+area);**

**}**

**}**

**public class Mauli4**

**{**

**public static void main(String[] args)**

**{**

**Shape h;**

**Triangle t=new Triangle();**

**Rectangle r=new Rectangle ();**

**h=t;**

**h.input();**

**h.compute\_area();**

**h=r;**

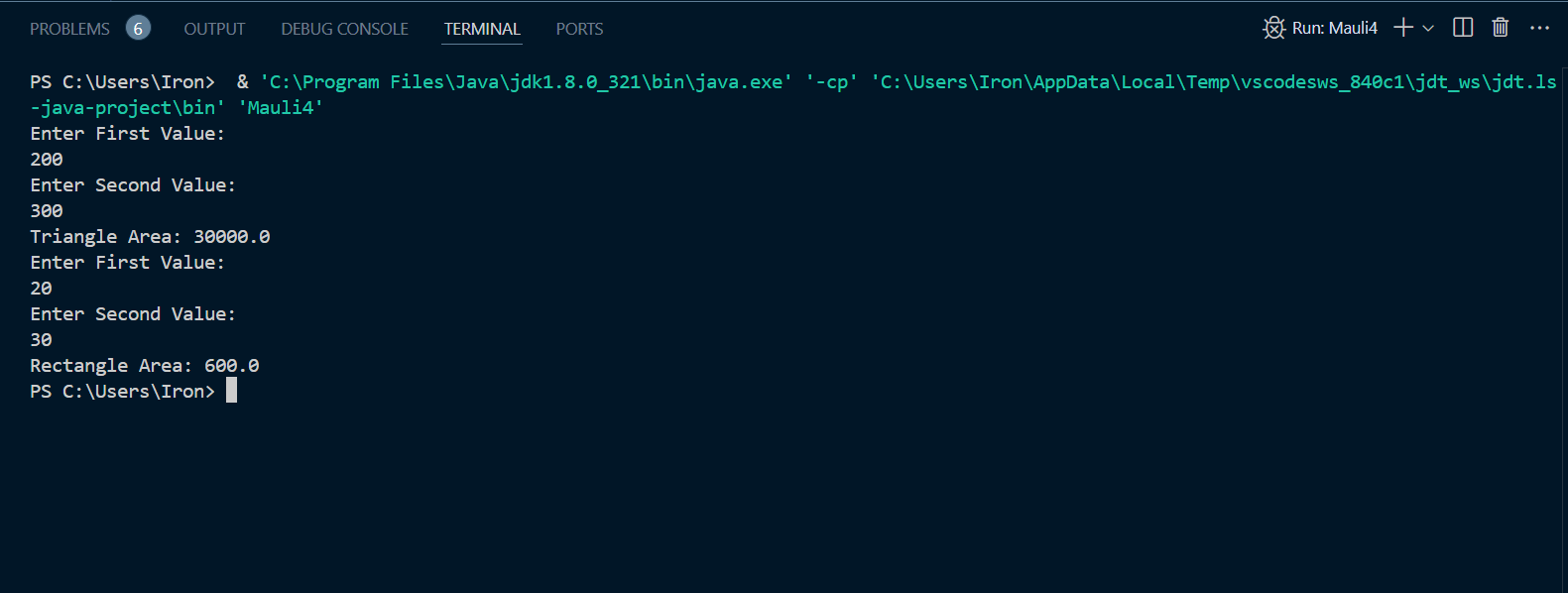
**h.input();**

**h.compute\_area();**

**}**

**}**

**Output:**

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