ASSIGNMENT NO 04

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import java.util.Scanner;

public class Main {
  public static void main(String[] args) {
     Scanner scanner = new Scanner(System.in);
     int choice;
     int ch = 0;




     while (ch != 1) {
        System.out.println("\n\n\n$$$$$$$$$$$$$$$$$$$$ MENU
$$$$$$$$$$$$$$$$$$$$$$$$$$$$");
        System.out.println("\n\n\n1.Triangle\n2.Rectangle\n3.Exit\nFrom the above option whose
Area you want to compute");
        choice = scanner.nextInt();
     if (choice > 0 && choice < 3) {
        switch (choice) {
           case 1:
              System.out.print("Enter the height of the Triangle: ");
              double len = scanner.nextDouble();
              System.out.print("Enter the base of the Triangle: ");
              double bre = scanner.nextDouble();
              Triangle t = new Triangle();
              t.inputdata(len, bre);
              t.compute_area();
              break;
           case 2:
              System.out.print("Enter the Length of the Rectangle: ");
              len = scanner.nextDouble();
              System.out.print("Enter the Breadth of the Rectangle: ");
              bre = scanner.nextDouble();
              Rectangle rec = new Rectangle();
              rec.inputdata(len, bre);
              rec.compute_area();
              break;
           case 3:
              ch = 1;
              break;
        }
     } else {
        System.out.println("Please give a valid input.");

     }

  }
```

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    }
}

abstract class Shape {
    double length;
    double breadth;

    void inputdata(double len, double bre) {
        length = len;
        breadth = bre;
    }

    abstract void compute_area();
}

class Triangle extends Shape {
    @Override
    void compute_area() {
        System.out.println("Area of the triangle is: " + 0.5 * length * breadth);
    }
}

class Rectangle extends Shape {
    @Override
    void compute_area() {
        System.out.println("Area of the rectangle is: " + length * breadth);
    }
}
```