**package** oop;

**import** java.util.Scanner;

**abstract** **class** Shape {

**double** dimension1;

**double** dimension2;

**public** **void** inputDimensions() {

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

System.***out***.print("Enter the first dimension: ");

dimension1 = sc.nextDouble();

System.***out***.print("Enter the second dimension: ");

dimension2 = sc.nextDouble();

}

**public** **abstract** **double** compute\_area();

}

**class** Triangle **extends** Shape {

@Override

**public** **double** compute\_area() {

**return** (dimension1 \* dimension2) / 2; // Area of triangle

}

}

**class** Rectangle **extends** Shape {

@Override

**public** **double** compute\_area() {

**return** dimension1 \* dimension2; // Area of rectangle

}

}

**public** **class** Main {

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

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

System.***out***.println("Choose shape (1: Triangle, 2: Rectangle): ");

**int** choice = sc.nextInt();

**if** (choice == 1) {

Triangle triangle = **new** Triangle();

triangle.inputDimensions();

System.***out***.println("The area of the triangle is: " + triangle.compute\_area());

} **else** **if** (choice == 2) {

Rectangle rectangle = **new** Rectangle();

rectangle.inputDimensions();

System.***out***.println("The area of the rectangle is: " + rectangle.compute\_area());

} **else** {

System.***out***.println("Invalid choice!");

}

}

}