Exercise 04: Abstract Classes & Interfaces

In this exercise, we will be using abstract classes and interfaces to describe the different shapes and their characteristics.

Task 0: Preparation
Please create a new folder for this exercise in your own repository as you did in the previous exercises. At the end commit and push the modified files to your repository.

Task 1: Interfaces

Define an interface named *Shape* with the following methods:

double calculateArea() to calculate the surface area of the shape

double calculateScope() to calculate the scope of the shape

String describe() to provide a textual description of the shape

Task 2: Abstract class

Create an abstract class named *AbstractShape* implementing the Shape interface. Provide one default implementations for one method of your choice.

Task 3: Implementation

Implement concrete classes for *Circle*, *Square*, and *Triangle*, extending AbstractShape and providing specific implementations for the inherited methods. Think of necessary attributes and constructors.

Task 4: Test

Run the provided tests to see if your solution is correct.