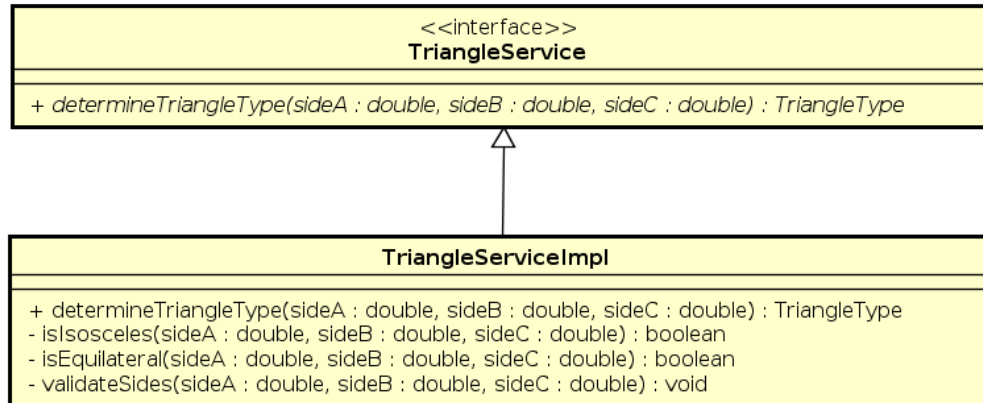


Overview

The idea with this application is to demonstrate how an interface, `TriangleService`, can be exposed to provide the functionality to determine the triangle type based on a given input while the implementation of the interface, `TriangleServiceImpl`, is kept in a separate package to allow modifications without changing the interface.

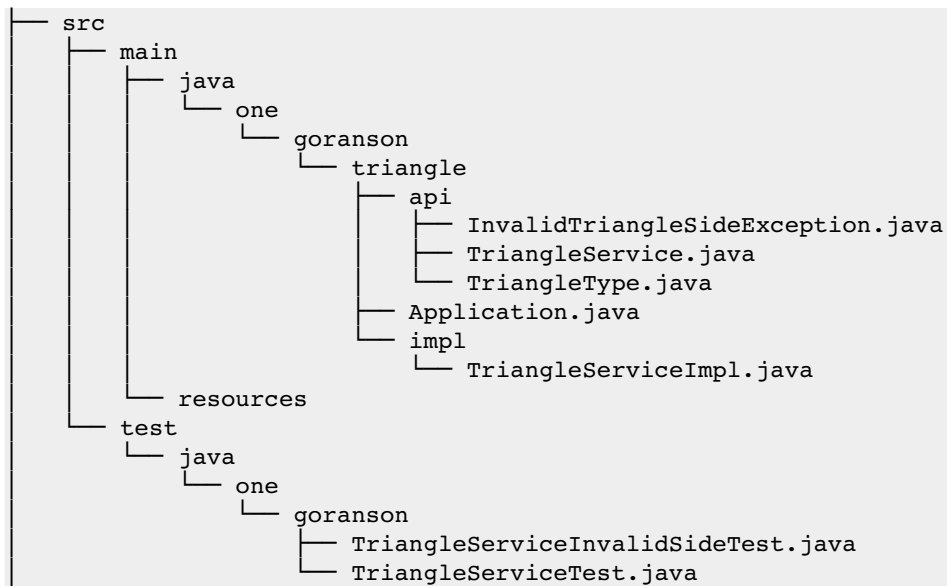


The interface resides in the package `com.one.triangle.api` which also contains an exception, `InvalidTriangleSideException`, and an enum, `TriangleType`, that users of the service will need.

Typically, Springs dependency injection or Java EE's CDI would be used to instantiate and inject an instance of the `TriangleService`.

File description

The files are structured in the Maven file structure convention.



TriangleService

The interface `TriangleService` exposes the method `determineTriangleType` that has the triangle sides as input and returns a `TriangleType`. The aim is to keep the interface simple and easy to understand the purpose of. A checked exception, `InvalidTriangleSideException` is thrown if any of the input parameters are not valid. This is done in order to force the user of the service to handle invalid input.

TriangleType

A simple enum to represent a triangle type. Resides in the `com.one.triangle.api` package since it will be service users.

InvalidTriangleSideException

Checked exception representing a invalid triangle side scenario.

TriangleServiceImpl

The implementation class of the `TriangleService` and implements the method `determineTriangleType`. The approach is to break down the functionality into smaller pieces such as letting method `determineTriangleType` care as much as possible to determine the and delegate the details of how to determine to other methods. This shall give a fairly visible readability of the code path.

TriangleServiceTest

A test class to test the to determine the three triangle types. The test uses Junit as test framework.

TriangleServiceInvalidSideTest

A test class to test some scenarios of invalid input arguments. Since the test focus on testing several combination the test is using the Parameterized runner to simplify the test structure.

Application

A small main class to run the application from a command line.