Lab: Basic Testing Concepts

Defining Good Test Cases

Introduction

Testing is a very important aspect of software development. Testing early and often is crucial to catching serious bugs early in the development process, where they are less expensive to fix.

In this lab, you will analyze some source code and produce test input information utilizing the principles you learned in your reading. For each method, you will identify valid and invalid equivalence classes, boundary cases, and test case inputs with expected solutions for five of the classes and boundary cases you identify. We have provided an Example Solution file to help you see how to format your solution.

Start by reviewing the code in the FareCalculator.java file. Then analyze the solution in the Example Solution as an example of what you will create for the methods listed below.

After reviewing the sample solution, create your own solution for the following methods:

- isPasswordValid(String password) in the PasswordChecker.java file
- isEquilateral(int x, int y, int z) in the Triangles.java file

Note: You do not need to create solutions for the `isIsosceles` and `isScalene` methods in Triangles.java

For each of your solutions, identify and include the following:

- Valid and invalid equivalence classes
- Boundary cases
- Five test case examples with sample test inputs and expected results
    - One should be for a valid equivalence class
    - One should be for an invalid equivalence class
    - One should be for a boundary case
    - You can choose the other two cases

Your solution should be formatted like the example solution. Remember to put your name on it.

Submission

Submit one PDF file to Canvas containing both of your solutions. Your solutions should be formatted like the example solution document we provided.