Assignment 1

For each task, write your answers and findings in a README file together with any code.

1. Reflections

1. Shooting

A woman fired a shot at a man with her gun, but the man did not die. List the possible reasons for the man not dying.

2. Alien

An alien meets you and it asks you to teach it how to brush its teeth. Assume that the alien has teeth exactly like yours, and is as smart as you, but it needs a clear step-by-step instruction. List the steps. Be as detailed as you can. (Example: Hold the toothpaste with your left hand; turn the cap anti-clockwise)

2. Two katas

Complete the following two katas using BDD. Make sure to follow the BDD and TDD mantra, "red-green-refactor":

- Red: Write a failing test/feature.
- Green: Write the smallest implementation to make your test/feature pass.
- Refactor: Make the necessary refactoring to the implementation, tests and feature, in order to remove redundancy, improve tests ,features and code or improve on maintenance.

A fuller explanation of the BDD and TDD steps can be found here:
https://en.wikipedia.org/wiki/Test-driven_development
https://en.wikipedia.org/wiki/Behavior-driven_development

Remember, the point of these katas is not to solve the coding tasks as such. The point is to *use BDD*. Thus, if your code contains a solution to the task, but no tests/features, the solution is not accepted.

1. Fahrenheit-to-celcius converter

Use BDD to create a fahrenheit-to-celcius converter.
Use BDD to extend it to a celcius-to-fahrenheit converter.

2. Roman numeral kata

Implement an "Arabic numeral to roman numeral" converter using BDD. Follow the standard form of roman numerals – the rules can be found on the wikipedia page:
https://en.wikipedia.org/wiki/Roman_numerals#Standard_form.
You can test your converter against this online converter:
http://www.novaroma.org/via_romana/numbers.html.

3. Give your thoughts on BDD

Write your notes (in a readme file) regarding the BDD process, reflecting on the following questions.

- What was positive and good about using BDD?
- What was annoying or difficult?
- What surprised you?

- Did BDD help you understand the problem domain more
- Did BDD help you write some tests you wouldn't otherwise have thought of?

4. HAND-IN

Individually, on Peergrade before the deadline. The hand-in should be a link to a repository including a section in README.md named Assignment 1 with answers to the exercise questions.