***Project***: Fetch Coding Exercise - SDET: <http://sdetchallenge.fetch.com/>

Challenge: *<https://fetch-hiring.s3.amazonaws.com/SDET/Fetch_Coding_Exercise_SDET.pdf>*

***Documentation for setting up and executing a test using TestNG with Java from candidate: Bati Kulusheva***

## 1. Introduction

**TestNG** is a testing framework inspired by JUnit and NUnit, but with added features to make it more powerful and easier to use. It's designed to cover all categories of tests: unit, functional, end-to-end, integration, etc.

**Selenium WebDriver** is a tool that automates web browsers, providing a programming interface for controlling web interactions. It supports multiple programming languages, such as Java, C#, and Python, among others.

**The Page Object Model (POM)** is a design pattern used in test automation for enhancing test maintenance and reducing code duplication. It recommends representing web pages as objects in the test code. Each web page or its part becomes a separate class with its own methods and attributes. This class encapsulates the interactions and functionalities of a particular page, making the test scripts cleaner and more readable.

By combining Selenium WebDriver with the POM pattern, testers and developers can create a robust framework that is easy to maintain, scalable, and re-usable.

## 2. Cloning and Setting up the TestNG Framework with Java Project

Prerequisites:

a) **Java Development Kit (JDK)** - Ensure that you have JDK installed on your machine.

b) **Maven** - This guide assumes that the project uses Maven as a build and dependency management tool.

c) **Git** - You'll need Git to clone the repository.

Steps:

I-Clone the Repository

Open a terminal or command prompt and navigate to the directory where you'd like to clone the repository.

Run:

$ git clone [URL\_OF\_THE\_REPOSITORY]

Replace [URL\_OF\_THE\_REPOSITORY] with the actual GitHub repository URL.

Navigate to the Project Directory

II-Once cloned, navigate to the project directory:

$ cd [PROJECT\_DIRECTORY\_NAME]

Replace [PROJECT\_DIRECTORY\_NAME] with the name of the cloned directory.

III-Install Dependencies using Maven

Run the following command to install the required dependencies:

$ mvn clean install

This will download the necessary dependencies and compile the project.

IV-Running the Test

The project has a predefined Maven goal to execute tests. To run the test, use:

$ mvn test

Or you can run the test from the "testng.xml" file

V-Reviewing the Results

After executing the tests, Maven will provide a summary of the tests that have passed, failed, or were skipped.

Test scenario TS1

Title- Solving the task by performing minimum attempts.

Steps:

1. User goes to <http://sdetchallenge.fetch.com/>

2. User divides the gold bars into 3 groups

3. User starts to weigh the first 2 groups by filling out the left and right rows

4. User clicks on the weight button

5. User verifies Result

6. User clicks on the Reset button

7. Depending on the result of weighing User continues weighing groups or weighs already defined fake group to find out fake gold bar

8. User finds the fake gold bar and clicks on it coin of the web page

9. User verifies the Alert message

Environment: <http://sdetchallenge.fetch.com/>

Expected Alert message: "Yay! You find it!"

**PS.** I appreciate the opportunity to showcase my skills. Despite a busy schedule, I aimed to effectively demonstrate my logic and approach. It would be great if you could provide any PRD or SRS documents. Thank you for your consideration.

Best Regards,

Bati K.