**Honest Food Company Assignment**

Design consideration and framework architecture

**Design Consideration:**

I have considered Page Object Model design pattern for automation of <http://bet.unibet.co.uk/> . In Page Object Model, there is a clean separation between test code and pagespecific code such as locators and layout which becomes very easy to maintain code.

POM is widely used design pattern in selenium for enhancing test maintenance and reduces redundancy of code.

**Framework Architecture:**

Below are the main component and tools used for automation of <http://bet.unibet.co.uk/>.

**Maven** – Maven is used to define project structure, dependencies, build, and test management. Using pom.xml (Maven) you can configure dependencies needed for building test cases and running code. Maven automatically downloads the necessary files from the repository while building the project. Maven project can be integrated to Jenkins for CI/CD pipeline implementation.

**Selenium WebDriver with Java** – Selenium webDriver is a open source tool for automating web application testing, and in particular to verify that they work as expected. It aims to provide a friendly API that's easy to explore and understand.

**TestNG**: TestNG is a testing framework build on the top of JUnit to simplify and improve JUnit testing framework for java, this can be used for both Unit testing and End to End testing. It can be used for any testing, be it API testing or UI testing. It supports parallel testing and Group testing.

**Log4j:** Log4j is used to print logs.

**TestBase:** This file contains the methods with TestNG annotations which needs to be executed before and after Suite, Class, Method, Test etc. Basically, this class controls the end to end execution flow of the test suite.

**Extent Reports:** Extent Reports class is used to generate an HTML report on the user-specified path. The built-in reports provide information on the steps that are executed as part of the test case. After running test suite, This HTML report will be created as HFC Summary Report.html

**Object Repository:** This file contains the locators of the web elements for the which can access by pages to locate the elements on the web pages.

**Pages:** A java file is created for every page of web UI. Business logics are implemented in the page classes. Page factory is used to initialize the web elements.

Page classes are created in src/main/java

**Test:** Test cases are created for every page and methods are created for every test case. Test cases are written in the src/test/java

**PropertiesCache**: This class contains methods which are used to read data from config.properties file.

**DB Util:** DB util class contains methods to create db connection. We have not implemented in the assignment as it was not required.