# **Capstone Project – Writeup**

#### **Step 1: Set Up Project**

- 1. Create a new Java project in Eclipse IDE.
- 2. Initialize a Git repository for version control and push it to GitHub.
- 3. Create a folder structure to organize different testing components.

### Step 2: End-User Black Box Testing using Selenium WebDriver with TestNG

- Create a TestNG class for each page: LoginPageTest, RegistrationPageTest, AddToCartPageTest, PlaceOrderPageTest (For example).
- 2. Use Selenium WebDriver to interact with each page's elements (buttons, forms, etc.).
- 3. Write TestNG test methods to cover various scenarios (positive, negative, boundary).
- 4. Use assertions to verify expected outcomes (e.g., successful login, cart contents).
- 5. Run the tests using TestNG and review test results.

### **Step 3: Load Testing using JMeter**

- 1. Download and install JMeter.
- 2. Create JMeter scripts: HomepageLoadTest.jmx and ProductDetailLoadTest.jmx (For example)
- 3. Configure thread groups, HTTP requests, and response assertions.
- 4. Set up timers and ramp-up periods to simulate user load.
- 5. Run the JMeter scripts to perform load testing on the homepage and product detail page.
- 6. Analyze the results for response times, throughput, and errors.

## **Step 4: API Testing with Postman and Rest Assured**

- Create Postman collections for the API endpoints: SportyShoesAPI.postman\_collection.json.
  (For example).
- 2. Use REST-assured library in Java to replicate API tests programmatically.
- 3. Write Java classes for each API endpoint: GetShoesAPITest, GetUsersAPITest, AddShoeAPITest. (For example).
- 4. Perform API requests using REST-assured and validate responses.
- 5. Run the API tests using TestNG and review results.

## **Step 5: Documentation and Conclusion**

Github link - https://github.com/Shalini-Raquel/Capstone\_TrainingProjectFinal.git