**Write up:**

Course-end Project: Testing Framework Development for Sporty Shoes Website

Project Description:

The Course-end Project 1 aims to create a comprehensive Quality Assurance (QA) and testing suite for the Sporty Shoes website. This project encompasses various testing methodologies and tools to ensure the reliability, functionality, and performance of the website. The key objectives include:

• Conducting browser-based end-user testing using Selenium WebDriver with the TestNG Framework.

• Performing load testing using JMeter to evaluate the website's performance under different load conditions.

• Implementing API testing with Cucumber to validate the functionality and integrity of the backend services.

• Utilizing Postman and Rest Assured for comprehensive API testing to ensure seamless communication and data integrity.

The ultimate deliverables of this project will be executable scripts and modules that can be readily executed to conduct thorough testing of the Sporty Shoes web application.

Project Deliverables:

1. Selenium WebDriver with TestNG Framework:

• Develop Selenium scripts integrated with the TestNG framework to automate end-user testing across various functionalities of the Sporty Shoes website. These scripts will simulate user interactions with the website to validate its behavior and functionality.

2. JMeter Load Testing:

• Create JMeter scripts to conduct load testing on the Sporty Shoes website. These scripts will simulate a high volume of concurrent users accessing the website to assess its performance, scalability, and response times under different load conditions.

3. API Testing with Cucumber:

• Implement API testing using Cucumber, a behavior-driven development (BDD) tool, to validate the functionality of the Sporty Shoes website's backend APIs. Cucumber feature files will be created to define test scenarios and steps, ensuring thorough API testing coverage.

4. API Testing with Postman and Rest Assured:

• Utilize Postman and Rest Assured to perform comprehensive API testing of the Sporty Shoes website. These tools will be used to validate API endpoints, verify request and response payloads, and assess the overall reliability and integrity of the backend services.

Conclusion:

By executing the Course-end Project 1, the Sporty Shoes website will benefit from a robust testing framework that ensures its reliability, functionality, and performance. Through automated testing using Selenium, JMeter, Cucumber, Postman, and Rest Assured, the website can maintain high standards of quality and user satisfaction. The deliverables of this project will enable on-demand testing of the Sporty Shoes web application, ensuring its readiness for deployment and providing a seamless user experience.