**Preliminary QA Strategy and Results**

**Project Overview:**

**Application:** nopCommerce (open-source e-commerce platform)

**Overview:** The goal of this project is to validate key user journeys including registration, login, product search, add-to-cart, and checkout ensuring quality, stability, and usability across different environments.

**Testing Scope:** The project covers **manual** and **web automation testing** of the nopCommerce website.

* **Manual Testing:** Focused on scenarios such as registration, login, and product management.
* **Automation Testing:** Used **Cypress** to automate core web flows login, add to cart, and checkout along with accessibility testing in browsers like **Google Chrome** and **Microsoft Edge**.
* **Bug Tracking:** All identified issues were reported and tracked in **Jira**.
* **API Testing:** Performed using the **FakeStore API**, covering endpoints related to users, carts, products, and authentication.

**Out of Scope:** API testing of the nopCommerce demo website, as its backend API endpoints are not publicly accessible. Due to this limitation, the FakeStore API was used for API automation practice.

**Test Environments:**

1. **Local Web:** nopCommerce running on localhost:8081 via docker [8080 reserved for Jenkins].
2. **Browser:** Google Chrome and Microsoft Edge.
3. **API:** REST endpoints tested **Cypress intercept** and **cy.request()** commands.

**Tools & Frameworks:**

1. **Cypress:** Web & API automation
2. **Jira:** Bug tracking & reporting
3. **GitHub:** Repository for test scripts and documentation
4. **Lighthouse / axe-core plugin:** Accessibility & performance checks

**Results:**

**Manual Testing:**

* **Modules Covered:** Registration, Login, and Product
* **Total Test Cases:** 20
* **Execution Result:** All test cases passed successfully

**Automation Testing:**

* Cypress Web Tests:Automated flows for user registration, login, product search, add to cart, and checkout all executed successfully.
* API Tests (FakeStore API):ValidatedGET**,** POST**,** PUT**,** andDELETEoperations for users, carts, products, and authentication endpoints. All responses returned expected results.

**Reports and Deliverables:**

* Test Plan
* Detailed Test Cases
* Jira Defect Summary Report
* Cypress Test Scripts
* API Test Scripts (FakeStore API)

**Next Steps:**

* Expand automation coverage to include product reviews and wishlist functionality.
* Integrate the test suite with Jenkins for continuous execution and reporting.
* Expand Appium coverage to include user registration and product navigation through the Google web browser.
* Integrate Selenium tests into the Jenkins pipeline for unified CI/CD execution.