TEST PLAN
Project Name : Tutorial Ninja
Date : 17-1-25

Table of Content

1. Introduction

This document outlines the testing strategy and scope for the **Tutorials Ninja e-commerce platform**. The objective is to validate the functionality, performance, usability, and compatibility of the platform, ensuring a seamless user experience across devices and browsers.

Website Link: [Your Store](#)

2. Objectives

- Validate navigation links, page loading, and functionality of key features.
- Test critical workflows, such as user registration, login, product search, cart management, and checkout etc.
- Ensure the platform is responsive and compatible across browsers and devices.
- Automate critical workflows using Selenium with the Page Object Model (POM) framework.

3. Testing Scope:

Manual and Automation Testing:

- **Manual Testing**:
  - Perform exploratory testing to identify usability issues and edge cases.
  - Validate all workflows manually, focusing on critical features like login, product search, cart management, and checkout.
- **Automation (Selenium)**:
  - Automate critical workflows like adding products to the cart, completing checkout, and applying promo codes.
  - Use Selenium for regression testing to ensure new updates don't break existing functionality.
- **Cucumber Framework with POM via Selenium WebDriver**:
  - **Login Functionality:**
    - Automate login using valid and invalid credentials, checking for correct error messages.
    - Test the multi-factor authentication (MFA) process for login security.
  - **Product Search and Filters:**

- Automate product searches and ensure that filters such as category, price, and rating return the correct results.
- Validate the sorting functionality (e.g., price, best sellers).
  - **Checkout Process:**
    - Automate adding items to the cart and completing checkout.
    - Use Cucumber to automate applying promo codes and verifying correct discount calculations.

4. Testable Features

- **User Registration and Login**
- **Product Browsing and Display**
- **Search Functionality**
- **Cart Management**
- **Checkout Process**
- **Order History**
- **Account Management (Update Details)**
- **Promo Codes and Discounts**
- **Multi-currency Support**
- **Mobile and Cross-browser Compatibility**
- **Security Features**
- **Error Handling**

5. Testing Approach

Testing Types

- **Usability Testing**: Ensure the platform is user-friendly, intuitive, and efficient for browsing, managing the cart, and completing checkout.
- **Functionality Testing**: Test all core features including registration, login, product browsing, cart management, and checkout.
- **Performance Testing**: Evaluate the platform under high traffic (simulate sales events) and test for load times, stability, and scalability.
- **Security Testing**: Conduct a full security audit to identify any vulnerabilities and ensure data protection.
- **Compatibility Testing**: Test across multiple devices and browsers to ensure consistency and accessibility.

Testing Methodologies

- **Exploratory Testing**: Identify edge cases and usability issues.

- **Regression Testing**: Ensure new updates do not break existing functionality.
- **Behaviour-Driven Testing**: Use Cucumber's Gherkin syntax to define test scenarios.

6. Roles/Responsibilities

Team Lead: Nashrah Khan

- Responsibilities:
    - Create and manage the test plan.
    - Oversee both manual and automated testing efforts.
    - Write and review test scripts.
    - Track progress and manage risks throughout the testing process.

Team Members 1: Jatinder Kumar

- Responsibilities:
    - Create detailed test scenarios for functional workflows.
    - Develop comprehensive test cases to cover manual testing.
    - Identify, document, and report bugs with severity, reproduction steps, and screenshots.
    - Collaborate with the team lead for test case reviews and bug triaging.

Team Members 2: Rishabh Shivhare

- Responsibilities:
    - Conduct security testing using Burp Suite and identify vulnerabilities.
    - Perform performance testing using JMeter to evaluate platform scalability and response times.
    - Execute cross-browser compatibility testing across Chrome, Firefox, Safari, and Edge.
    - Prepare a report.

7. Test Schedule

Task	Duration
Test Plan Creation	Jan 17, 2025
Test Scenario Creation	Jan 17, 2025
Automation Script Creation	Jan 17-18,2025

Test Case Creation	18 Jan ,2025
Test Execution	8 Jan,2025

8. Test Deliverables

- **Test Plan**: Document outlining testing strategy and objectives.
- **Test Scenarios**: High-level test cases for workflows.
- **Test Cases**: Detailed test cases for manual execution.
- **Automation Scripts**: Selenium WebDriver scripts for automated testing.
- **Bug Reports**: List of identified bugs with severity and resolution status.
- **Test Summary Report**: A comprehensive report summarizing testing activities and results.

9. Entry & Exit Criteria

Entry Criteria
- Access to the stable website environment.
- Availability of test data for workflows.

Exit Criteria
- All critical test cases executed successfully.
- No unresolved high-priority defects.
- Test summary report submitted.

10. Tools

- **Manual Testing:** Google Sheets/Docs for test cases and bug tracking.
- **Automation Testing:** Selenium WebDriver, Cucumber, TestNG/Maven.
- **Cross-browser Testing:** Browser Stack or similar tools.
- **Security Testing:** Burp Suite for vulnerability scanning and penetration testing.

11. Risks and Mitigation Plans

Risk	Mitigation Strategy
Unstable Website	Perform testing during stable hours or scheduled builds.
Dynamic Elements	Use robust locators (e.g., XPath, CSS) and implement waits.

Time Constraints	Prioritize critical workflows for automation and manual testing.

12. Approvals:

Masai will send different types of documents for Client Approval like below:

- **Test Plan**
- **Scenarios**
- **Scripts**
- **Reports**

Testing will only continue to the next steps once these approvals are done