**Test Plan for Tutorials Ninja Application**

**1. Introduction**

**1.1 Purpose:** This test plan outlines the strategy and approach for testing the **Tutorials Ninja** application to ensure its functionality, performance, and usability meet the defined requirements.

**1.2 Scope:** The scope of testing includes the core functionalities of the **Tutorials Ninja** application, such as homepage, product Display Page and Product Search.

**1.3 Objectives:**

* Verify that the application meets all functional requirements.
* Ensure the application is free of critical defects.
* Validate the performance and security of the application.
* Confirm compatibility across different devices and browsers.

**2. Test Strategy**

**2.1 Types of Testing:**

* **Functional Testing:** Ensure all features work as intended.
* **Regression Testing:** Verify that new changes don’t negatively affect existing functionality.
* **Performance Testing:** Assess the application's responsiveness and stability under load.
* **Usability Testing:** Evaluate the user interface and experience.
* **Compatibility Testing:** Confirm the application works across various devices and browsers.

**2.2 Testing Tools:**

* **Functional Testing:** Selenium, TestNG
* **Performance Testing:** JMeter, LoadRunner
* **Security Testing:** OWASP ZAP, Burp Suite
* **Compatibility Testing:** BrowserStack, LambdaTest

**3. Test Scope**

**3.1 Features to be Tested:**

* **Home Page:** Viewing all the menu and product details
* **Product Search:** Search by category, keywords, filters, and sorting options.
* **Product Details:** Viewing product details, images, and reviews.
* **Shopping Cart:** Adding/removing items, updating quantities, and viewing cart summary.

**3.2 Features Not to be Tested:**

* Integration with third-party services (e.g., external APIs) will not be tested in this plan.

**4. Test Environment**

**4.1 Hardware:**

* Servers: [Specify server configurations]
* User Devices: Desktop (Windows, macOS), Mobile (iOS, Android)

**4.2 Software:**

* **Operating Systems:** Windows 11, macOS, iOS 15+, Android 12+
* **Browsers:** Chrome, Firefox, Safari, Edge
* **Database:** N/A

**5. Test Schedule**

**5.1 Milestones:**

* **Test Planning:** [27-08-2024] - [28-08-2024]
* **Test Case Design:** [28-08-2024] - [29-08-2024]
* **Test Execution:** [29-08-2024] - [30-08-2024]
* **Defect Reporting:** [30-08-2024]- 31-08-2024]
* **Test Closure:** [30-08-2024] - [31-08-2024]

**6. Test Deliverables**

**6.1 Test Artifacts:**

* Test Plan Document
* Test Cases and Scripts
* Test Data
* Test Execution Reports
* Defect Reports
* Final Test Summary Report

**7. Roles and Responsibilities**

**7.1 Test Manager:**

* Oversee test planning and execution
* Coordinate with stakeholders
* Review and approve test deliverables

**7.2 Test Engineers:**

* Design and execute test cases
* Report and track defects
* Collaborate with the development team

**7.3 Product Owner:**

* Provide requirements and clarify doubts
* Validate test results and provide feedback

**8. Risk and Mitigation**

**8.1 Risks:**

* **Incomplete Requirements:** Regular review and clarification sessions with stakeholders.
* **Environment Issues:** Ensure test environments are stable and reflective of production.
* **Testing Delays:** Prioritize critical test cases and allocate additional resources if needed.

**9. Approval**

**Test Plan Prepared by:** Shahid Patel

**Approved by:** Shiva Kumar

**Date of Approval:**