**1. Test Plan Identifier**

Test Plan ID: PS-TST-001

Date: October 16, 2024

**2. References**

Project Plan for Petstore application.

Requirements Specification document.

High-Level Design Document.

Detail Design Document.

**3. Introduction**

This test plan describes the overall strategy and scope for testing the Petstore application. The goal is to ensure the application performs correctly and efficiently under normal stress conditions, providing a seamless user experience.

The Petstore app allows users to browse, search, add items to a cart, and make purchases. This test plan focuses on performance, functional, and usability testing.

**4. Test Items (Functions)**

The primary components to be tested include:

Home page navigation.

Product catalog (browsing and viewing product details).

Search functionality.

Add to cart and view cart operations.

Login and logout functions.

Checkout process.

**5. Software Risk Issues**

Complexity of the catalog: High data volume may cause slow browsing.

Third-party dependencies: External payment gateways.

New features: Search optimization recently added may contain defects.

High traffic spikes: During promotions or sales.

**6. Features to be Tested**

Homepage: Ensure proper loading times and display of promotional banners.

Product Catalog: Verify smooth browsing, filtering, and sorting of products.

Search: Ensure accurate and fast search results.

Cart Management: Validate adding/removing items from the cart.

Login/Logout: Test both registered and guest user flows.

Checkout: Test full checkout, including shipping, billing, and payment processes.

**7. Features Not to be Tested**

Backend database updates: Outside the scope for front-end testing.

Email/SMS notification systems: These will be tested separately.

Payment gateway testing: Assumes third-party gateways are fully functional.

**8. Approach**

The test approach is a mix of manual and automated testing, ensuring both functional and non-functional requirements are met. The approach includes:

Functional testing for core features (browsing, cart, search, etc.).

Performance testing simulates peak and normal loads using load testing tools.

Regression testing for any changes or updates.

Usability testing focuses on the user interface and experience.

**9. Item Pass/Fail Criteria**

Pass: 95% of user interactions must be completed within 3 seconds.

Fail: Any critical failures in the checkout process or an error rate >1% are unacceptable.

**10. Suspension Criteria and Resumption Requirements**

Testing will be paused if:

Critical functionality (e.g., login, checkout) is not working.

Server crashes or severe performance degradation.

Testing will resume once these issues are fixed.

**11. Test Deliverables**

Test Plan document.

Test cases and scripts.

Test execution results.

Defect logs and issue reports.

Performance test reports.

**12. Remaining Test Tasks**

Tasks remaining include:

Completion of test scripts for automated testing.

Load testing configuration.

Gathering test data for various catalog items.

**13. Environmental Needs**

Access to staging and production environments.

Tools for load testing (OctoPerf, JMeter).

Browser compatibility testing tools (Chrome, Firefox, Edge).

**14. Staffing and Training Needs**

Staffing: 2 QA engineers (1 for functional, 1 for performance testing).

Training: Training for QA staff on the Petstore application and load testing tools.

**15. Responsibilities**

QA Lead: Coordinates all testing efforts and manages bug triaging.

Developers: Assist with unit testing and bug fixes.

Testers: Responsible for executing tests and reporting results.

**16. Schedule**

Test Preparation: October 15–20, 2024.

Test Execution: October 21–27, 2024.

Bug Fixing and Retesting: October 28–30, 2024.

**17. Planning Risks and Contingencies**

Risk: Delays in the development schedule.

Mitigation: Prioritize critical features and functionality in testing.

Risk: Server crashes under load.

Mitigation: Increase server capacity and run load tests at lower user counts.

**18. Approvals**

QA Lead: RAJ KIRAN

Project Manager: SURESH

Development Lead: SATYAPRIYA

Business Analyst: Linesh

Date: 16-10-2024

**19. Glossary**

QA: Quality Assurance

UI: User Interface

SRS: Software Requirements Specification

API: Application Programming Interface