Software Requirement Specification

## Test Plan for OctoPerf PetStore Demo

### 1. Test Plan Identifier

TP-PETSTORE-001 | Version 1.0 | April 25, 2025

### 2. References

* [OctoPerf PetStore Demo](https://petstore.octoperf.com/actions/Catalog.action)
* IEEE 829-1998 Standard for Software Test Documentation
* [JPetStore Test Cases on Scribd](https://www.scribd.com/document/528613988/Jpetstore-Test-Cases)
* [IEEE 829 Test Plan Template](https://github.com/JennifferLockwood/test_plan_template/blob/master/IEEE_829_test_plan_template.md)

### 3. Introduction

This test plan outlines the strategy and scope for testing the OctoPerf PetStore demo application. The objective is to validate the application's functionality, usability, and performance to ensure it meets the expected standards and provides a seamless user experience.

### 4. Test Items

* User Registration and Authentication
* Product Catalog Browsing and Search
* Shopping Cart Operations
* Order Processing and Checkout
* User Interface and Navigation

### 5. Software Risk Issues

* Potential broken links or missing images
* Inaccurate search results
* Shopping cart synchronization issues
* Performance degradation under load
* Session management vulnerabilities

### 6. Features to be Tested

* Account creation and login/logout functionality
* Product category navigation and detailed views
* Search functionality with various input scenarios
* Adding, updating, and removing items from the cart
* Checkout process and order confirmation

### 7. Features Not to be Tested

* Email notifications (not implemented)
* Payment gateway integrations (mocked or non-functional)
* Mobile responsiveness (focus is on desktop version)

### 8. Approach

* Functional Testing: Manual testing of user flows and functionalities.
* Performance Testing: Utilizing JMeter integrated with OctoPerf to simulate user load and measure response times.
* Usability Testing: Assessing the user interface for intuitiveness and ease of navigation.

### 9. Item Pass/Fail Criteria

* Pass: The application behaves as expected without any defects.
* Fail: The application exhibits behavior that deviates from the expected outcome or contains defects.

### 10. Suspension Criteria and Resumption Requirements

* Suspension: Testing will be suspended if critical defects are found that block further testing.
* Resumption: Testing will resume once the critical defects are resolved and verified.

### 11. Test Deliverables

* Test Plan Document
* Test Cases and Test Scripts
* Defect Reports
* Test Summary Report
* Performance Test Results

### 12. Remaining Test Tasks

* Execution of all test cases
* Logging and tracking of defects
* Regression testing after defect fixes
* Final test summary and sign-off

### 13. Environmental Needs

* Browsers: Latest versions of Chrome, Firefox, and Edge
* Operating Systems: Windows 10/11
* Tools: JMeter, Selenium WebDriver
* Stable internet connection for accessing the demo site

### 14. Staffing and Training Needs

* 1 Test Lead
* 2 Test Engineers
* 1 Performance Test Engineer
* Training on OctoPerf and JMeter for performance testing

### 15. Responsibilities

* Test Lead: Overall test planning and coordination
* Test Engineers: Test case execution and defect reporting
* Performance Test Engineer: Load testing and analysis
* Developers: Fixing reported defects

### 16. Schedule Test planning Test Case Development Test Execution Defect Fixing and Retesting 17. Planning Risks and Contingencies

* Risk: Unavailability of the demo site.

Mitigation: Coordinate with OctoPerf support for site availability.

* Risk: Limited access to performance testing tools.

Mitigation: Utilize open-source tools and seek necessary permissions in advance.

### 18. Approvals - Test Lead - QA Manager - Client Management

19. Glossary

QA: Quality Assurance

UI: User Interface

JMeter: Java-based performance testing tool

OctoPerf: Performance testing platform

Test Case: A set of conditions under which a tester determines whether an application is working correctly