**Test Plan for JPetStore**

# **1. Test Plan Identifier**

**TP-JPETSTORE-FULL-001**

# **2. References**

* [JPetStore Website](https://petstore.octoperf.com/actions/Catalog.action)
* JPetStore official documentation and usage guidelines
* Selenium WebDriver Automation Framework
* Apache JMeter Performance Testing Guide
* IEEE 829-1998 Standard for Software Test Documentation

# **3. Introduction**

This Test Plan describes the testing strategy, scope, objectives, and resources needed to verify the functionalities of the JPetStore demo application. The main goal is to ensure that all critical customer-facing operations — browsing, searching, shopping cart operations, and checkout — function smoothly under normal and load conditions.

Testing will include:

* Functional Testing (Manual and Automated)
* Performance Testing
* Usability Testing
* Basic Security Validation (session and form validation)

# **4. Test Items**

* Home Page Load and Navigation
* Product Browsing by Categories
* Product Search and Filtering
* Product Detail View
* Adding Products to the Shopping Cart
* Shopping Cart Management
* Checkout Process and Order Confirmation
* Order History Viewing

# **5. Software Risk Issues**

* Inaccurate or slow search results
* Cart synchronization issues
* Checkout process failures
* Missing order confirmations
* Performance degradation under high load
* Session handling issues during checkout

# **6. Features to be Tested**

* Product browsing and category navigation
* Keyword-based product search
* Product detail validation
* Add to cart and update cart operations
* Complete checkout process
* Order confirmation visibility

# **7. Features Not to be Tested**

* User login and registration
* Email notifications
* Third-party payment integrations
* Admin dashboard
* Mobile responsiveness across devices

# **8. Approach**

* Functional Testing: Manual and Automated
* Automation Testing: Selenium WebDriver scripts
* Performance Testing: Apache JMeter load simulation
* Usability Testing: Navigation and UI/UX ease
* Security Validation: Basic form input checks

# **9. Item Pass/Fail Criteria**

**Pass:**

* Users can navigate, search, add to cart, checkout, and receive confirmation successfully.

**Fail:**

* Major functionality breakdowns or crashes.
* Load test exceeding 3-second response time under normal load.

# **10. Suspension Criteria and Resumption Requirements**

**Suspension:**

* Application downtime
* Major blocking bugs

**Resumption:**

* All critical issues resolved and verified stable.

# **11. Test Deliverables**

* Test Plan Document
* Manual and Automated Test Cases
* Execution Summary Reports
* Defect Reports
* JMeter Performance Reports
* Traceability Matrix

# **12. Remaining Test Tasks**

* Finalize test cases
* Develop Selenium scripts
* Set up JMeter scripts
* Dry runs and validation

# **13. Environmental Needs**

**Hardware:**

* Desktop/Laptop, 8GB RAM minimum

**Software:**

* Google Chrome, Mozilla Firefox
* Selenium WebDriver, JMeter

**Environment:**

* [JPetStore Demo Website](https://petstore.octoperf.com/actions/Catalog.action)

# **14. Staffing and Training Needs**

* 2 QA Engineers (Manual + Automation)
* 1-day training on JPetStore features

# **15. Responsibilities**

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| Test Lead | Plan and coordinate testing activities |
| Manual QA Engineer | Execute functional tests |
| Automation Engineer | Develop and run Selenium scripts |
| Developer Support | Assist with defect fixes |

# **16. Schedule**

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| --- | --- |
| **Activity** | **Timeline** |
| Test Planning | April 28 – April 29, 2025 |
| Test Case Development | April 30 – May 2, 2025 |
| Selenium Scripting | May 2 – May 4, 2025 |
| Functional Testing | May 5 – May 7, 2025 |
| Performance Testing | May 8 – May 9, 2025 |
| Defect Fixing | May 10 – May 11, 2025 |
| Test Closure | May 12, 2025 |

# **17. Planning Risks and Contingencies**

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| --- | --- |
| **Risk** | **Mitigation Strategy** |
| Inconsistent search results | Define stable keyword tests |
| Selenium script breakage | Use dynamic locators and waits |
| Load-induced slowdowns | Optimize backend after load test |

# **18. Approvals**

* Test Lead
* Project Manager
* Client/Product Owner Representative

# **19. Glossary**

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| --- | --- |
| **Term** | **Definition** |
| Product Search | Finding items using keywords |
| Cart | Temporary basket for intended purchases |
| Checkout | Order placement process |
| Selenium | Automation testing tool |
| JMeter | Load and performance testing tool |
| QA | Quality Assurance |