1. Test Plan Identifier

Test Plan ID: PSA-TP-001, Version 1.0.

2. References

Software Requirements Specification (SRS) for Pet Shop Application, Version 1.2

Pet Shop Application Design Document

User Stories and Use Case Document

Project Timeline and Milestones Document

3. Introduction

The purpose of this test plan is to outline the testing strategy for the Pet Shop Application, which allows users to browse, adopt pets, and purchase pet-related products online. The testing will focus on ensuring that the application is functional, reliable, and user-friendly.

4. Test Items

User Registration and Login Module

Pet Browsing and Search Functionality

Adoption Process (forms, approvals)

Shopping Cart and Checkout System

Inventory Management for Admin

Payment Gateway Integration

Notifications and Alerts (Email, SMS)

Customer Support Chat

Order History and Tracking

Reports for Admin (Sales, Inventory)

5. Software Risk Issues

Payment gateway integration failures

Slow performance under high traffic

Incorrect inventory management

Data loss during transaction processing

Issues with browser compatibility (e.g., mobile devices)

Security vulnerabilities in user data and payment information

6. Features to be Tested

User registration, login, and profile management

Pet search and filter functionality

Adoption form submission and validation

Shopping cart behavior (add/remove items, save for later)

Payment processing (successful and failed transactions)

Admin controls for inventory and order management

Notification system (real-time alerts, emails)

Integration with external payment gateway

User interface responsiveness on different devices and browsers

7. Features not to be Tested

Third-party APIs for pet image fetching (assumed to be tested by API provider)

Server-side performance optimizations outside the scope of this version

Social media sharing (planned for future release)

8. Approach

Unit Testing: Test each module independently (e.g., login, cart).

Integration Testing: Ensure smooth interaction between modules (e.g., checkout integrates with payment gateway).

System Testing: Full end-to-end testing from user registration to order confirmation.

Performance Testing: Test the system’s response under simulated high traffic.

Security Testing: Test data encryption, password security, and vulnerability checks.

Cross-Browser Testing: Validate functionality on different browsers and devices.

9. Item Pass/Fail Criteria

Test cases will pass if the expected outcomes match the actual outcomes for all features listed under “Features to be Tested.”

Failures will be noted if any critical functionality (e.g., payment processing) does not work as intended.

10. Suspension Criteria and Resumption Requirements

Testing will be suspended if there is a critical system crash or data corruption that affects testing continuity.

Testing will resume once the issue is resolved and confirmed by the development team.

11. Test Deliverables

Test cases and test scripts

Test execution reports

Defect/bug reports

Test summary reports

Performance and load testing results

12. Remaining Test Tasks

Complete cross-browser compatibility testing

Finalize performance and load testing

Conduct security audit

Perform final system testing before production deployment

13. Environmental Needs

Test environment with the latest build of the Pet Shop Application

Access to databases with sample pet and product data

Configured payment gateway sandbox for testing

Browsers (Chrome, Firefox, Safari, Edge) for compatibility testing

Mobile devices (iOS, Android) for mobile testing

14. Staffing and Training Needs

2 QA Engineers for functional testing

1 Performance Testing Specialist

1 Security Auditor

Training on the third-party payment gateway integration

15. Responsibilities

QA Lead: Manage overall testing strategy and timeline.

QA Engineers: Develop and execute test cases, report defects.

Developers: Fix reported issues and collaborate with QA team.

Project Manager: Approve test schedule and deliverables.

16. Schedule

Unit testing: October 10 - October 14

Integration testing: October 15 - October 20

System testing: October 21 - October 27

Performance and security testing: October 28 - October 31

Final sign-off: November 3

17. Planning Risks and Contingencies

Risk of delayed testing due to incomplete feature development; contingency plan includes prioritizing critical modules for early testing.

Unavailability of third-party payment gateway sandbox; contingency plan involves using a simulated gateway.

High bug discovery rate; contingency involves extending the test schedule by 2-3 days.

18. Approvals

QA Lead: Raj Kiran

Project Manager: Suresh Sir

Development Lead: Bhargav Balla

Date: 01 November 2024

19. Glossary

QA: Quality Assurance

UI: User Interface

SRS: Software Requirements Specification

API: Application Programming Interface