

4. Test Plan Creation

1. Test Plan Overview

- **Project Name:** E-Commerce Website Testing
- **Document Version:** 1.0
- **Prepared By:** Farshad Ahamad
- **Date:** August 25, 2024
- **Test Plan Status:** Draft

2. Objective

With an emphasis on important features like different payment methods, shipping options and address management, order summary and review, order confirmation and receipt generation, this test plan aims to provide an overview of the testing methodology for the new e-commerce website. The objective is to guarantee that the website satisfies business needs, operates as intended, and offers a seamless user experience.

3. Scope

In-Scope

- Functional testing of multiple payment methods (credit/debit cards, PayPal, etc.).
- Functional testing of shipping options and address management.
- Validation of order summary and review page.
- Verification of order confirmation and receipt generation.
- Cross-browser and cross-device testing.
- Integration testing with payment gateways and shipping services.
- Usability testing of the overall shopping experience.

Out-of-Scope

- Backend database performance testing.
- Non-functional testing such as load, stress, and security testing.
- Localization testing.

4. Features to be Tested

- **Multiple Payment Methods**
 1. Credit/Debit card payment.
 2. PayPal integration.
 3. Payment validation and error handling.
 4. Handling of declined transactions.
- **Shipping Options and Address Management**
 1. Selection of different shipping options (e.g., standard, express).
 2. Addition, modification, and deletion of shipping addresses.
 3. Validation of shipping costs based on location and shipping option.
 4. Address validation and error handling.
- **Order Summary and Review**
 1. Display of selected products, quantities, and prices.
 2. Calculation of taxes and shipping costs.
 3. Display of selected payment method and shipping address.
 4. Editing options for the cart, payment method, and shipping address.
 5. Total cost calculation and verification.
- **Order Confirmation and Receipt Generation**
 1. Generation of order confirmation page after successful payment.
 2. Email notification with order confirmation and receipt.
 3. Display of order details and unique order number.
 4. Printable receipt generation.

5. Test Strategy

Testing Levels

- **Unit Testing**

Being out by developers to guarantee each component operates as intended.

- **Integration Testing**

Makes sure that external systems, such as shipping companies and payment gateways, are seamlessly integrated with the e-commerce website.

- **System Testing**

Comprehensive end-to-end testing of the program, with an emphasis on every feature covered by the scope.

- **User Acceptance Testing (UAT)**

Final testing phase conducted with end-users to ensure the application meets business requirements.

Testing Types

- **Functional Testing**

Validate that each feature works as expected.

- **Regression Testing**

Ensure that new changes do not affect existing functionalities.

- **Usability Testing**

Assess the user experience, ensuring the site is easy to navigate and use.

- **Cross-Browser Testing**

Test the website on different browsers (Chrome, Firefox, Safari, Edge).

- **Cross-Device Testing**

Ensure the website functions correctly on various devices (desktop, tablet, mobile).

Test Data

- Use realistic data sets, including various payment details, addresses, and product selections.
- Ensure test data covers a wide range of scenarios, including edge cases like incorrect payment details and invalid addresses.

6. Test Environment

- **Browsers** - Chrome, Firefox, Safari, Edge.
- **Devices** - Desktop (Windows, macOS), Tablets, Mobile devices (Android, iOS).
- **Operating Systems** - Windows 11, macOS, Android 12, iOS 16.
- **Test Server** - Staging environment mirroring production setup.

7. Entry and Exit Criteria

Entry Criteria

- The development team has completed the coding of all in-scope features.
- Unit testing is completed with no major issues.
- Test environment is set up and stable.
- Test data is prepared and validated.

Exit Criteria

- All test cases have been executed.
- All critical and high-priority defects have been fixed and retested.
- UAT is completed and signed off by stakeholders.
- Test summary report is prepared and reviewed.

8. Test Deliverables

- **Test Plan** - This document.
- **Test Cases** - Detailed test cases covering all in-scope features.
- **Test Scripts** - Automated test scripts for regression testing.
- **Defect Reports** - Detailed reports of any defects found during testing.
- **Test Summary Report** - A report summarizing test execution and results.

9. Testing Schedule

- **Test Plan Review** - August 26, 2024
- **Test Case Design** - August 27 - August 31, 2024
- **Test Execution** - September 1 - September 10, 2024
- **Defect Fixing & Retesting** - September 11 - September 14, 2024
- **UAT** - September 15 - September 17, 2024
- **Test Closure** - September 18, 2024

10. Risks and Mitigation

- **Risk** - Delays in environment setup.
 - **Mitigation** - Coordinate with the IT team early to ensure timely setup.
- **Risk** - Integration issues with payment gateways.
 - **Mitigation** - Engage with third-party providers to troubleshoot and resolve issues quickly.
- **Risk** - Changes in requirements during testing.
 - **Mitigation** - Implement a change control process to assess the impact and re-prioritize test cases.

11. Roles and Responsibilities

- **Test Manager** - Oversee the testing process, manage the team, and report progress to stakeholders.
- **Test Lead** - Coordinate test case design, execution, and defect management.
- **Testers** - Execute test cases, log defects, and perform retesting.
- **Automation Engineer** - Develop and maintain automated test scripts.
- **Business Analyst** - Provide clarifications on requirements and assist with UAT.

12. Approval

- **Approved by** - Name
- **Date** - Approval Date