

TEST PLAN

E-Commerce Web Site

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Table of Contents

1.	Introduction	3
2.	Scope	3
3.	Test Objectives	3
4.	Test Environment	3
5.	Test Approach	4
6.	Test Scenarios	4
7.	Non-Functional Testing	7
8.	Test Data	8
9.	Defect Management	8
10.	Test Schedule	8
11.	Resources	8
12.	Entry and Exit Criteria	8
13.	Deliverables	9

1. Introduction

This test plan outlines the testing approach for an e-commerce website that includes features such as multiple payment methods, shipping options and address management, order summary and review, and order confirmation and receipt generation. The aim is to ensure that all functions work seamlessly and provide a smooth experience to users.

2. Scope

- Functional testing of core features (payment methods, shipping, order process).
- Usability testing to ensure user-friendliness.
- Performance and security testing where applicable.

3. Test Objectives

- Verify that multiple payment methods (e.g., credit card, PayPal, etc.) work correctly.
- Confirm that shipping options and address management functions as intended.
- Ensure that the order summary and review page displays accurate information.
- Verify that order confirmation and receipt generation are accurate and sent to the user.

4. Test Environment

- Devices Desktop, mobile (iOS/Android), tablets.
- Browsers Chrome, Firefox, Safari, Edge.
- Payment Gateways Simulate transactions using available methods (credit card, PayPal, etc.

5. Test Approach

Functional Testing - Ensures that each feature works as expected.

Integration Testing - Validates that different module (e.g., payment, shipping, and order processing) work well together.

UI/UX Testing - Ensures ease of use, proper layout, and accessibility.

Performance Testing - Tests website performance under various conditions, such as load or high traffic.

Security Testing - Validates the security of payment methods and personal user data.

Compatibility Testing - Ensures compatibility across different browsers and devices.

6. Test Scenarios

Multiple Payment Methods

- Test Case 1 Validate payment using credit/debit card.
 - Steps
 - 1. Add items to the cart.
 - 2. Proceed to checkout.
 - 3. Select credit/debit card as payment method.
 - 4. Input valid credit card details.
 - 5. Verify that payment is processed, and confirmation is received.
- Expected Result Payment is successful and user receives an order confirmation.
- Test Case 2 Validate payment using PayPal.
 - Steps
- 1. Add items to the cart.
- 2. Select PayPal as payment method.
- 3. Complete PayPal authentication.
- 4. Verify order is completed, and confirmation received.
- Expected Result Payment via PayPal is successful, and an order confirmation is sent.
- Test Case 3 Validate payment failure (invalid card details).
- Steps
 - 1. Add items to the cart.

- 2. Enter invalid credit card details.
- 3. Attempt payment.
- Expected Result Payment is declined, and an appropriate error message is shown.

Shipping Options and Address Management

- Test Case 4 Validate shipping address addition.
- Steps
 - 1. Add items to the cart.
 - 2. Proceed to checkout.
- 3. Add a new shipping address.
- Expected Result: New address is saved and displayed in the address list.
- Test Case 5 Validate multiple shipping options.
- Steps
 - 1. Add items to the cart.
 - 2. Proceed to checkout.
- 3. Choose from available shipping methods (e.g., standard, expedited).
- Expected Result Selected shipping method is applied to the order.
- Test Case 6 Validate address update.
- Steps
 - 1. Add items to the cart.
- 2. Proceed to checkout.
- 3. Edit an existing shipping address.
- Expected Result Address is successfully updated.

Order Summary and Review

- Test Case 7 Validate order summary details.
- Steps
 - 1. Add items to the cart.
- 2. Proceed to checkout.
- 3. Review order summary.
- Expected Result All items, quantities, prices, shipping costs, and taxes are correctly displayed.
- Test Case 8 Validate order changes before finalization.
- Steps
 - 1. Add items to the cart.
- 2. Review order.
- 3. Modify the cart (e.g., change quantities or remove items).
- Expected Result Order summary is updated based on changes.

Order Confirmation and Receipt Generation

- Test Case 9 Validate order confirmation.
- Steps
 - 1. Complete payment.
- 2. Verify that an order confirmation is displayed.
- Expected Result Order confirmation is displayed with order number and summary.
- Test Case 10 Validate receipt generation.
- Steps
 - 1. Complete the order.

- 2. Check email for the receipt.
- Expected Result A receipt is sent to the registered email with order details.

7. Non-Functional Testing

- Performance Testing Ensure the website responds within acceptable time limits under normal and heavy loads (e.g., during checkout).
- Security Testing Validate that user data (payment, shipping address) is securely transmitted (e.g., SSL encryption).
- Usability Testing Ensure ease of navigation, clarity of information, and minimal steps for completing orders.

8. Test Data

- Test credit card numbers.
- Multiple user accounts with varied shipping addresses.
- Different items and quantities in the cart for a variety of order scenarios.

9. Defect Management

All defects found during testing will be logged and tracked in the defect management system. Each defect will be assigned a priority and severity level for resolution.

10. Test Schedule

- Start Date September 25, 2024
- End Date October 10, 2024

11.Resources

- **Testers** Manual testers, QA team
- **Tools** Selenium (for automated testing), Postman (for API testing), BrowserStack (for compatibility testing)
- **Test Data** Various dummy user profiles, test cards, addresses, and products for scenarios

12. Entry and Exit Criteria

Entry Criteria

- All features are implemented.
- Test environment is set up.
- Test data is ready.

Exit Criteria

- All critical test cases are passed.
- No severe defects remain.
- Performance and security tests are completed.

13. Deliverables

- Test execution report
- Defect logs and resolutions
- Final Test Summary Report

14. Conclusion

This test plan ensures that all key functionalities of the e-commerce website will be thoroughly tested to provide a reliable and smooth user experience.