4. TEST PLAN CREATION

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WIREAPPS / Intern QA Technical Assessment

E – Commerce Website

Test Plan

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1. Introduction

The purpose of this test plan is to outline the testing strategy, scope, schedule, and resources required for testing the new e-commerce website, which includes multiple payment methods, shipping options, address management, order summary and review, and order confirmation with receipt generation.

Goal: Ensure the e-commerce website functions as expected, providing a seamless and secure shopping experience for users.

2. Scope of Testing

2.1 In-Scope

1. User Registration and Login
2. Product Search and Filtering
3. Shopping Cart Management
4. Checkout Process

   - Multiple payment methods (e.g., credit card, PayPal, etc.)
   - Shipping options (e.g., standard, express, etc.)
   - Address management (add, edit, delete addresses)
   - Order summary and review (display of all items, pricing, taxes, etc.)
   - Order confirmation and receipt generation (confirmation page and downloadable receipt)

5. Order History and Tracking

2.2 Out of Scope

- Backend system testing (e.g., order processing, inventory management)

- Integration with third-party services not directly related to user experience

3. Test Strategy

3.1 Testing Types

3.1.1 Functional Testing

Ensure that all features work as expected, including payment methods, shipping, and order confirmation.

3.1.2 Usability Testing

Evaluate the user experience to ensure the website is easy to navigate, and all processes are intuitive.

3.1.3 Security Testing

Verify that payment and personal information is securely handled (e.g., SSL encryption, secure payment gateways).

3.1.4 Performance Testing

Assess the website's performance under different load conditions (e.g., multiple users checking out simultaneously).

3.1.5 Cross-Browser and Cross-Device Testing

Ensure the website is compatible across major browsers (e.g., Chrome, Firefox, Safari) and devices (desktop, mobile, tablet).

3.1.6 Regression Testing

Ensure that any new changes or features do not impact existing functionalities.

4. Test Environment

4.1 Environment Setup

Development Environment: For initial unit testing by developers.

Staging Environment: A replica of the production environment for QA testing.

Production Environment: The live environment where the website will be accessed by end users.

4.2 Required Tools

Automation Tool: Selenium WebDriver for automated regression testing.

Test Management Tool: JIRA or TestRail for tracking test cases and defects.

Performance Testing Tool: JMeter or LoadRunner for load and performance testing.

Browser Testing Tool: BrowserStack or Sauce Labs for cross-browser and cross-device testing.

5. Test Objectives

5.1 Payment Methods

Validate that all payment methods work correctly and securely (e.g., credit/debit cards, PayPal, etc.).

Ensure that the correct payment gateway is used, and the transactions are successful.

Test error handling for failed transactions (e.g., invalid card details, insufficient funds).

5.2 Shipping Options and Address Management

Verify that users can select from different shipping options and that the correct shipping charges are applied.

Ensure that users can add, edit, and delete shipping addresses.

Test the default address selection and the ability to switch between addresses during checkout.

5.3 Order Summary and Review

Validate that the order summary displays all items correctly, including quantities, prices, taxes, and shipping charges.

Ensure that the user can review the order before confirming it.

5.4 Order Confirmation and Receipt Generation

Verify that users receive an order confirmation page with a unique order ID after successful checkout.

Test that a receipt is generated and can be downloaded/emailed as a PDF.

Validate that order details are accurately reflected in the order history section.

6. Test Deliverables

Test Cases: Documented test cases for all scenarios, including positive and negative cases.

Test Execution Report: Summary of test execution, including passed, failed, and blocked test cases.

Bug Report: List of identified issues, including severity, priority, and steps to reproduce.

Final Test Report: A detailed report outlining the testing outcomes, highlighting major defects, and summarizing the overall quality of the application.

7. Test Schedule

Activity	Start Date	End Date
Test Planning		
Test Case Design		
Test Environment Setup		
Functional Testing		
Usability Testing		
Security Testing		
Performance Testing		
Cross-Browser Testing		
Regression Testing		
Bug Fix Verification		
Final Test Report		

8. Test Resources

8.1 Testers

A team of QA engineers with expertise in manual and automation testing.

Automation Engineers: To develop and maintain automated test scripts.

Manual Testers: To perform exploratory and functional testing.

Security Experts: To conduct in-depth security assessments.

8.2 Tools and License

Ensure all required tools and licenses are available before testing begins

9. Risk Management

9.1 Potential Risks

Delays in Environment Setup: Could delay the start of testing activities.

Integration Issues: Challenges with integrating payment gateways or third-party services.

Incomplete Requirements: Ambiguity in business requirements leading to incorrect test cases.

9.2 Mitigation Strategies

Work closely with the development team to ensure the environment is set up on time.

Collaborate with third-party vendors to resolve integration issues promptly.

Conduct requirement reviews and clarifications early in the process to avoid misunderstandings.

10. Entry and Exit Criteria

10.1 Entry Criteria

- The test environment is fully set up and accessible.
- Test cases are reviewed and approved.
- All dependent modules are delivered to QA.

10.2　Exit Criteria

- All planned test cases are executed.
- All critical and high-priority defects are resolved.
- Test execution report is reviewed and approved by stakeholders.

11.　Approval and Sign-Off

11.1　Test Plan Approval

11.1.1 QA Lead

Name	Signature	Date

11.1.2 Development Lead

Name	Signature	Date

11.1.3 Project Manager

Name	Signature	Date

11.2　Sign-Off

Upon successful completion of testing, the QA team will sign off on the release, indicating that the application meets the required quality standards.