

Test Plan

ECommerce Web Application

Version: 1.0

Document Revision History:

AUTHOR	REVISION	COMMENTS	DATE
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Review and Approvals

NAME	TITLE	SIGNATURE	DATE

1 Introduction

1.1 Scope

- 1.1.1 This plan applies to the integration and system tests that will be conducted on an Ecommerce website. It is assumed unit testing already provided thorough black box testing, extensive coverage of source code, and testing of all module interfaces.

1.2 Objective

- 1.2.1 The purpose of this document is to outline the plans and schedules for testing the Ecommerce web application [INSERT NAME OF COMPANY]. This plan will include:
- Identifying scope of testing.
 - List the recommended test requirements
 - Identify required resources and define environment needs.
 - List the deliverables of the test plan.

1.3 Tasks

- 1.3.1 Testing
- 1.3.2 Test result and bug reporting
- 1.3.3 Test suite evaluation report†

1.4 Roles and Responsibilities

- 1.4.1 QA Analyst
- 1.4.2 Test Manager
- 1.4.3 Configuration Manager
- 1.4.4 Developers
- 1.4.5 Installation Team

2 Test Strategy

2.1 Overview

- 2.1.1 Testing activities shall be scheduled and delivered using an agile approach with weekly iterations. At the end of each week, the requirements identified will be delivered to the team and will be tested. Tests for planned functionality will be created and added to development as we get iterations of the product.

2.2 Scope

2.2.1 User role functionalities

- Registration
- Login and password recovery
- Search for products
- Product details with available variations
- Manage shopping cart
- Checkout and payment of orders
- Share products on social media
- Place order
- Manage account
- Track orders
- Contact Customer Service

2.2.2 Admin role functionalities

- Manage product catalog
- Manage orders
- Manage customers
- Manage orders
- Manage roles/permissions
- CMS pages management
- Statistics and reports

2.3 Objectives

2.3.1 This test methodology aims to meet exit criteria to ensure that:

- Visitors are able to:
 - Search for products using keyword and category search
 - View product description
 - Share on social media
 - Check shipping availability by postal code
 - Check product variations
 - Contact support
- Customers are able to everything a visitor can and:
 - Register and login
 - View product listing with sorting and filter options.
 - Add product to wishlist

- View order history
- View account settings
- Specify quantity, size, and product variation
- Owner is able to:
 - Manage product inventory
 - Manage product catalog
 - Manage orders
 - Manage payments
 - CMS
 - Product rating and reviews
 - Statistics and reports page
 - Manage roles and permissions

2.4 Testing types

2.4.1 Data and Database Integrity Testing

- The database and database processes should be tested as separate systems.

2.4.1.1 Test Objective

- Ensure database access methods and processes function properly without data corruption.

2.4.1.2 Technique

- Invoke each database access method and process, seeding each with valid and invalid data.
- Inspect the database to ensure the data has been populated as intended, all database events occur properly, or review the returned data to ensure correct data was retrieved.

2.4.1.3 Exit Criteria

- All database access methods and processes function properly and without data corruption.

2.4.1.4 Special Considerations

- Additional research into the DBMS is needed to identify tools/techniques to support the testing.
- Databases used should be fixed to increase the visibility of errors and insufficient events.
- Testing is done without the application, therefore defects may occur if test data is not properly generated similarly to actual data.
- Additional research into the DBMS is needed to identify tools/techniques to support the testing.
- Databases used should be fixed to increase the visibility of errors and insufficient events.

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2.4.2 Functional Testing

- Tests focusing on any target requirements that can be traced directly to a use case, and/or business requirement. Based on black box techniques using the web application itself.

2.4.2.1 Test Objective

- Ensure proper application navigation, data entry, processing, and retrieval functionalities of ECommerce web application.

2.4.2.2 Technique

- Execute each use case, using valid and invalid data when needed.
- Verify the expected results occur when valid data is used.
- Verify the appropriate error/ warning messages are displayed when invalid data is used.
- Each business requirement is properly applied.

2.4.2.3 Items to Test

- User Login
- User Registration
- Product Search
- Product Listing
- Product Details
- Wishlist
- Shopping cart
- Checkout and Payment
- Social Media Sharing
- My Account
- Order History
- Contact
- Support
- Dashboard
- Buyers Management
- Orders Management
- Product Categories management
- Products management
- Payment management
- Ratings and reviews
- Statistics and reports
- Systemusers management

- CMS Management
 - Email Management
 - Complains/Feedbacks
- 2.4.2.4 Exit Criteria
 - All planned tests have been executed and all identified defects have been addressed.
- 2.4.2.5 Special Considerations
 - Access to production servers is required to run some system tests on the prototype.
- 2.4.3 Performance Testing
 - Tests that measure response times, transaction times, and other time sensitive requirements.
- 2.4.3.1 Test Objective
 - Validate the web application is performing at an acceptable benchmark for both normal anticipated volume and anticipated worse case volume.
- 2.4.3.2 Technique
 - Use Test scripts for business model testing
 - Modify data files or scripts to increase the number of iterations each transaction occurs.
 - Scripts should be run on one machine and be repeated with multiple clients.
 - Measure expected/acceptable response time per single transaction.
 - Measure expected/acceptable response time for multiple transactions occurring simultaneously.
- 2.4.3.3 Exit Criteria
 - Single user transaction completes successfully and within the expected time benchmark.
 - Multiple user transactions complete successfully and within the expected time benchmark for at least 100 concurrent users.
- 2.4.3.4 Special Considerations
 - Requires background load on the server.
 - Testing must be performed on a dedicated machine or at a dedicated time.
 - Databases used should be scaled equally to actual data.
- 2.5 Compatibility Testing
 - Run tests on different operating systems and web browsers.
- 2.5.1 Test Objective
 - Validate the web application is capable of running on different OS and web browsers.
- 2.5.2 Technique

- Run application on different OS and web browsers.
- Perform functional and performance tests for each os and web browser.

2.5.3 Exit Criteria

- Application successfully runs on each os and web browser
- All functional tests pass and performance tests meet benchmark

2.5.4 Special Considerations

3 Test Deliverables

- 3.1 Test Plan
- 3.2 Test Environment
- 3.3 Test Suite
- 3.4 Test Data Sets
- 3.5 Test Scripts
- 3.6 Test Cases
- 3.7 Requirement Traceability Matrix
- 3.8 Bug Reports
- 3.9 Test Evaluation Report

4 Resource and Environment Needs

4.1 Resources

	Tool
Test Management	Requirements and Test Management for Jira
Test Design	
Defect Tracking	Jira
Functional Testing	
Performance Testing	
Project Management	Microsoft Office Suite
	Jira

Other Test Tools	
DBMS Tool	

4.2 Environment

Resource	Name
Cloud Server	
Billing System	
Client Test PC's	
Test Repository	
Test Development PC's	
Customers, Orders, Accounts, and Product Catalog Databases	

5 Test Schedule

5.1 See Jira.

6 Terms/Acronyms