**Test plan for**

**MW Ecommerce**

*ChangeLog*

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| **Version** | **Change Date** | **By** | **Description** |
| 1 | 04/08/25 | Mariah Tam | Created Document |
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# Introduction

This test plan will discuss the requirements that are in scope of testing, the objectives for testing, roles and responsibilites, testing methodology, test deliverables, and needed resources and environments. This test plan is based on the iterative development methodology.

## Scope

### In-Scope

From the Software Requirements and Specification document in Section 3 System Features:

* 3.1 User Registration and Authentication
* 3.2 Product Search
* 3.3 Product Filtering and Sorting
* 3.5 Return
* 3.6 Listings
* 3.7 Monitoring

From the Software Requirements and Specifications document in Section 4:

* 4.2 Safety Requirements -Login with username and password
* 4.3 Security Requirements- Unique username and a password
* 4.4 Software Quality Attributes

### Out-of-Scope

From the Software Requirements and Specification document in Section 3 System Features:

* 3.4 Purchasing
  + 3.4.3.2-Phone number validation (Not going to check the validity of the phone number)
  + 3.4.3.6-Tracking information of package (Not going to do because the website is not a real business)

From the Software Requirements and Specifications document in Section 4:

* 4.2 Safety Requirements- signing terms and conditions
* 4.3 Security Requirements- password character and special character requirements

## Quality Objective

* Ensure the Application Under Test conforms to functional and non-functional requirements
* Ensure the AUT meets the quality specifications defined by the client
* Bugs/issues are identified and fixed before go live
* Get the customers approval before the application goes live

## Roles and Responsibilities

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Net ID** | **GitHub username** | **Role** |
| Mariah Tam | Mlt604 | Tammariah | * QA Analyst * Test Manager * Configuration Manager * Developer * Installation Team |

# Test Methodology

## Overview

The iterative development test methodology is being used for this project. This methodology was chosen due to its modularization. Given that the team is new to web development, this gives allows for a more manageable development cycle. New sections of the ecommerce platform will be integrated one by one to the system as a whole, and test within the system.

## Test Levels

**Unit Testing**

Purpose: The purpose of this form of testing is verify the functionality of individual modules alone.

Test Performer: Mariah Tam

**Integration Testing**

Purpose: The purpose of this form of testing is to verify the interaction between the different modules in the application.

Test Performer: Mariah Tam

**System Testing**

Purpose: The purpose of this form of test is to evaluate the system’s functionality as a whole and to insure the system meets the criteria it is supposed to upon completion.

Test Performer: Mariah Tam

**Acceptance Testing**

Purpose: The purpose of this form of testing is to get approval from the stakeholders that the system meetings their requirements.

Test Performer: Stakeholder and Mariah Tam

## Bug Triage

**Severity Levels of Bugs**

1. Critical: The application is unusable, or data loss has occurred. Requires immediate attention.
   1. Priority: Immediate
2. High: A major function of the application is not working correctly, risking the integrity of some other functionalities.
   1. Priority: High
3. Medium: A minor function is not working correctly, but a workaround exists.
   1. Priority: Normal
4. Low: Cosmetic issues or minor inconveniences with minimal impact.

**Bug Priority Levels**

1. Immediate: Must be fixed before progressing the project in any way.
2. High: Should be fixed in a timely manner.
3. Normal: Will be fixed before next Sprint release.
4. Low: Will be fixed if time permits.

**Resolution Types**

1. Fixed: The bug has been resolved with a code change.
2. Duplicate: The bug is a duplicate of an existing bug.
3. No Fix: The bug will not be fixed due to low priority or other reasons.
4. By Design: The behavior is intentional and not a bug.
5. Cannot Reproduce: The bug cannot be reproduced by the triage team.

## Suspension Criteria and Resumption Requirements

**Suspension Criteria**

Suspension criteria define the criteria to be used to suspend all or part of the testing procedure.

1. Critical Defects: If two or more immediate bugs are identified within a 24-hour period.
2. Environment Instability: If the test environment is unavailable for more than 10 hours.
3. Build Instability: If five consecutive builds fail to deploy to the test environment.
4. Requirement Changes: If significant changes are made to the documented requirements that impact core functionality.
5. Data Corruption: If test data becomes corrupted or unreliable.

**Resumption Requirement**

Resumption criteria determine when testing can resume after it has been suspended

1. Critical Defects
   1. All identified immediate bugs must be resolved and verified
2. Environment Instability
   1. The test environment must be restored to a stable and operational state.
3. Build Instability
   1. A stable build must be successfully deployed to the test environment.
4. Requirement Changes
   1. The requirements documentation must be updated, and the impact analysis completed. Test cases must be updated accordingly.
5. Data Corruption
   1. Test data must be restored or recreated.

## Test Completeness

Testing will be considered complete when all of the following criteria have been met:

1. Test Coverage: 100% test coverage.
2. Test Case Execution: All planned manual and automated test cases have been executed.
3. Defect Resolution:
   1. All bugs of Critical and High severity have been resolved and verified.
   2. All Medium severity bugs have been resolved or at minumum documented.
   3. All Low severity defects have been documented and will be fixed un next release.

# Test Deliverables

1. **Test Plan**: Details the scope, objectives, resources, and schedule for testing. End of Sprint 3 (This document).
2. **Test Strategy**: Outlines the overall approach to testing, including testing levels, types of testing, and tools used. End of Sprint 3 (This documnent).
3. **Bug Reports**: Detailed descriptions of defects found during testing. Throughout Testing.
4. **Customer Sign Off**: Formal approval from the stakeholder that test and complete and meets their requirements. End of Project.

# Resource & Environment Needs

## Testing Tools

1. Requirements Tracking Tool: to manage requirements, create user stories, and track traceability.
   * + Ex: Azure DevOps
2. Bug Tracking Tool: to track and manage bugs though the testing process/lifecycle.
   * + Ex: Jira
3. Automation Tools: to automate web application testing
   * + Ex: Selenium WebDriver

## Test Environment

The following is the minimum **hardware** requirements that will be used to test the Application:

* Processor: Intel Core i5 or equivalent
* Memory (RAM): 16 GB
* Storage: 256 GB SSD

Following **software’s** are required in addition to client-specific software:

1. Windows 8 and above
2. Office 2013 and above
3. MS Exchange, etc.

# Terms/Acronyms

Make a mention of any terms or acronyms used in the project

| TERM/ACRONYM | DEFINITION |
| --- | --- |
| API | Application Program Interface |
| AUT | Application Under Test |