

TEST PLAN FOR KSG STORE

ChangeLog

Version	Change Date	By	Description
1.0	4/12/2023	George Anim	Started document
1.1	4/16/2023	Spencer Hall	Finished document

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1 Introduction

This test plan outlines the strategies, processes, workflows, and methodologies that will be used to test the e-commerce platform under development. We will use a combination of automated and manual testing techniques, including unit testing and integration testing. We will also incorporate continuous testing and delivery practices to ensure that the platform is thoroughly tested at every stage of development and deployment.

The testing process will be divided into several phases; each of these phases will have its own set of objectives, test cases, and acceptance criteria. We will use PyTest and CircleCI integrated into GitHub to automate our testing and ensure that we catch any bugs or issues before they impact our users. In addition, we will conduct manual testing to validate the user experience and identify any usability issues.

This test plan will provide a comprehensive overview of our testing approach, including the scope of testing, the quality objectives we aim to achieve, and the metrics we will use to measure our progress. It will also outline the roles and responsibilities of the testing team and the tools and technologies we will use.

1.1 Scope

1.1.1 In-Scope

The following features and functional/non-functional requirements of the e-commerce platform will be tested:

User Authentication

- Verify that all user roles (buyer, seller, admin) can login into their accounts and perform actions specific to their role
- Test that users can logout of their accounts without any issues

Buyer Functionality

- Verify that buyers can search for products by name, category, and other criteria
- Test that buyers can add products to their cart and checkout securely
- Verify that buyers can view order history, track shipments, and initiate returns

Seller Functionality

- Test that sellers can add products to their inventory and set prices
- Verify that sellers can receive payments for their products via the chosen payment gateway
- Test that sellers can view sales reports and update their inventory

Admin Functionality

- Verify that admins can approve/block new user accounts and products
- Test that admins can view user and product reports, such as the number of new users or the total revenue generated by a product
- Verify that admins can perform actions on behalf of users, such as resetting a password or cancelling an order

1.1.2 Out-of-Scope

The following features and functional/non-functional requirements of the e-commerce platform will NOT be tested:

Performance Requirements

- Verify that the system can handle high volumes of traffic and transactions without crashing or slowing down significantly
- Test that the response time of the system is within acceptable limits
- Verify that the system can handle multiple concurrent requests without data inconsistency issues

Compatibility Requirements

- Test that the platform works correctly on different web browsers, such as Chrome, Firefox, and Safari
- Verify that the platform is compatible with different devices, including desktop computers, laptops, tablets, and smartphones
- Test that the platform works correctly on different operating systems, such as Windows, macOS, and Linux.

1.2 Quality Objective

The objective of the testing effort for this e-commerce platform is to ensure that the Application Under Test (AUT) conforms to the functional and non-functional requirements specified in the project documentation. Additionally, we aim to verify that the AUT meets the quality specifications defined by the client and that any bugs or issues are identified and fixed before the platform goes live.

To achieve this objective, we will perform a range of testing activities, including unit testing and integration testing, using PyTest and CircleCI integrated into GitHub. We will also conduct manual testing to verify that the platform works as expected and to identify any usability issues.

Ultimately, our goal is to deliver a high-quality e-commerce platform that meets the needs of our users and delivers value to our client.

1.3 Roles and Responsibilities

Detail description of the Roles and responsibilities of different team members like

- QA Analyst
- Test Manager
- Configuration Manager
- Developers
- Installation Team

Amongst others.

Name	Net ID	GitHub username	Role
George Anim	gba37	animkofi	back-end dev testing
Kyana Conway	ktc188	KyanaConway	front-end dev testing
Spencer Hall	jsh278	spencerhall01	team lead back-end dev testing

2 Test Methodology

2.1 Overview

The test methodology selected for this project is Agile. We chose this methodology because it emphasizes collaboration, adaptability, and flexibility, which are essential qualities for delivering a high-quality e-commerce platform that meets the needs of our users and our client. In an Agile environment, the testing team works closely with the development team to ensure that quality is built into every stage of development, and that any issues are identified and resolved as quickly as possible.

Agile is particularly well-suited for this project because it allows us to break down complex requirements into smaller, more manageable tasks, which can be tested and validated on an ongoing basis.

As part of our Agile methodology, we will use Scrum as our project management framework, which will help us to prioritize tasks, track progress, and ensure that the testing team is aligned with the development team's goals and timelines. We will also incorporate continuous testing and delivery practices to ensure that we catch any bugs or issues early in the development process, and that the platform is thoroughly tested at every stage of development and deployment.

2.2 Test Levels

Test Levels define the Types of Testing (Unit Test, Integration Test, etc...) to be executed on the Application Under Test (AUT). The Testing Levels primarily depends on the scope of the project, time and budget constraints.

2.3 Bug Triage

The goal of the triage is to

- To define the type of resolution for each bug
- To prioritize bugs and determine a schedule for all “To Be Fixed Bugs”.

2.4 Suspension Criteria and Resumption Requirements

Suspension criteria define the criteria to be used to suspend all or part of the testing procedure while Resumption criteria determine when testing can resume after it has been suspended

2.5 Test Completeness

Here you define the criterias that will deem your testing complete.
For instance, a few criteria to check Test Completeness would be

- 100% test coverage
- All Manual & Automated Test cases executed
- All open bugs are fixed or will be fixed in next release

3 Test Deliverables

Here mention all the Test Artifacts that will be delivered during different phases of the testing lifecycle.

Here are the sample deliverables

- Test Plan
 - Test Cases
 - Requirement Traceability Matrix
 - Bug Reports
 - Test Strategy
 - Test Metrics
-

-
- Customer Sign Off
-

4 Resource & Environment Needs

4.1 Testing Tools

Make a list of Tools like

- Requirements Tracking Tool
- Bug Tracking Tool
- Automation Tools

Required to test the project

4.2 Test Environment

It mentions the minimum **hardware** requirements that will be used to test the Application.

Following **software's** are required in addition to client-specific software.

- Windows 8 and above
- Office 2013 and above
- MS Exchange, etc.

5 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