Test Plan for E-Commerce Website

1. Test Plan Identifier

- **Project Name:** E-Commerce Website Testing
- **Version:** 1.0
- **Date:** 30.08.2024
- **Prepared by:** Junior QA Engineer

2. Introduction

- **Objective:** To ensure that the e-commerce website's core functionalities are reliable, secure, and user-friendly, providing a seamless shopping experience.
- **Scope:** The testing will cover the following features:
  - Multiple payment methods
  - Shipping options and address management
  - Order summary and review
  - Order confirmation and receipt generation
- **References:**
  - Requirements Specification Document
  - Design Specification Document
  - User Stories and Acceptance Criteria

3. Test Items

- **Modules to be Tested:**
  - Payment Gateway Integration (Credit Card, PayPal)
  - Shipping Options (Standard, Express, International)
  - Address Management (Adding, Editing, Deleting)
  - Order Summary Page
  - Order Confirmation Page
  - Receipt Generation and Email Notification

4. Features to be Tested

- **Multiple Payment Methods:**
  - Verification of various payment options (credit/debit cards, PayPal).
  - Validation of successful and unsuccessful transactions.

○ Security testing for payment processing.

● **Shipping Options and Address Management:**

○ Verification of multiple shipping options and corresponding costs.

○ Testing of address management (adding, editing, deleting addresses).

○ Validation of address format and location-based shipping restrictions.

● **Order Summary and Review:**

○ Verification of accurate display of order details (items, quantities, prices, shipping, taxes).

○ Validation of discount, promotional codes, and vouchers application.

○ Testing of order modification before confirmation.

● **Order Confirmation and Receipt Generation:**

○ Verification of order confirmation details (order number, summary, shipping details).

○ Testing of receipt generation (PDF/Email) with correct information.

○ Validation of order confirmation email delivery.

5. Features Not to be Tested

● **Out of Scope:**
○ Non-functional testing like performance and load testing will not be covered in this phase.
○ UI/UX design aesthetics unless they affect functionality.
○ Integration with third-party systems beyond payment gateways.

6. Test Approach

● **Testing Levels:**
○ **Unit Testing:** Performed by developers to test individual components.
○ **Integration Testing:** To ensure that different modules work together as expected.
○ **System Testing:** Full end-to-end testing of the website, covering all features.
○ **Regression Testing:** Ensuring that new code changes don't adversely affect existing functionality.

- **User Acceptance Testing (UAT):** Final testing phase where actual users validate the system against business requirements.

- **Testing Types:**
  - **Functional Testing:** Validate each feature against the functional requirements.
  - **Security Testing:** Test the application for vulnerabilities, especially around payment processing.
  - **Usability Testing:** Ensure the application is user-friendly and intuitive.
  - **Compatibility Testing:** Test the website across different browsers and devices.
- **Automation Strategy:**
  - **Tools:** Selenium for UI automation, Postman for API testing.
  - **Coverage:** Automate regression tests and key functional tests that need to be run frequently.

7. Test Criteria

- **Entry Criteria:**
  - All modules are code-complete and unit tested.
  - Test environment is set up and configured.
  - Test data is prepared and available.
- **Exit Criteria:**
  - All critical and high-priority test cases have passed.
  - No open high-severity defects.
  - UAT is signed off by stakeholders.
- **Suspension Criteria:**
  - Testing may be suspended if critical defects are identified that block further testing.

8. Test Deliverables

- **Test Artifacts:**
  - Test Plan Document
  - Test Cases and Test Scripts
  - Test Data

- ○ Test Execution Results
- ○ Defect Reports
- ○ Test Summary Report

9. Testing Schedule

- **Milestones:**
  - ○ Test Plan Completion: 02.09.2024
  - ○ Test Case Design: 03.09.2024
  - ○ Test Environment Setup: 17.09.2024
  - ○ Test Execution Start: 18.09.2024
  - ○ Test Execution Completion: 18.12.2024
  - ○ UAT Completion: 20.12.2024
  - ○ Final Sign-Off: 21.12.2024

10. Testing Tasks

- **Test Case Development:** Write detailed test cases for all features to be tested.
- **Test Environment Setup:** Prepare and configure the test environment.
- **Test Execution:** Perform test execution based on the test cases.
- **Defect Reporting:** Log defects in the defect tracking tool and follow up for resolution.
- **Regression Testing:** Re-run previously passed test cases to ensure no defects have been introduced.

11. Environmental Needs

- **Test Environment:**
  - ○ Web servers, database servers, and application servers configured to mirror the production environment.
  - ○ Browsers: Chrome, Firefox, Safari, Edge.
  - ○ Devices: Desktop, Tablet, Mobile.
- **Test Data:**
  - ○ Sample user accounts, test payment details, test addresses, and dummy orders.

12. Responsibilities

- **Test Lead** - Oversee the test planning, execution, and reporting.

- **QA Engineers** - Design and execute test cases, report defects.
- **Automation Engineer** - Develop and maintain automated test scripts.
- **Developers** - Resolve defects and perform unit testing.
- **Product Manager** - Provide business requirements and accept final results.

13. Risks and Assumptions

- **Risks:**
  - Delays in environment setup.
  - Payment gateway downtime.
  - High number of critical defects during integration testing.
- **Mitigation Strategies:**
  - Regular communication with the environment team.
  - Early integration testing of payment systems.
  - Buffer time included in the schedule for defect resolution.

14. Approvals

- **Prepared by:** Junior QA Engineer
- **Reviewed by:** Senior QA Engineer
- **Approved by:** QA Lead