Test Plan

Project Name: DemoBlaze



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# Introduction

## Purpose

The purpose of this test plan is to ensure the thorough testing of the "<https://www.demoblaze.com/>" website, meeting the client's requirement for a high-quality website that has undergone the Software Testing Life Cycle (STLC). The Test Plan has been created to facilitate communication within the team members. This document describe approaches and methodologies that will apply to the unit, functional, integration and system testing of the "https://www.demoblaze.com/". It includes the scope, objectives, test responsibilities, schedule major milestones, entry and exit criteria and test approach. This document has clearly identified what the test deliverables will be.

## Project Overview

Demoblaze is an e-commerce website offering various items such as mobile phones, laptops, and monitors, allowing users to browse and place orders. Customers can explore items categorized by type and make purchases accordingly. The testing process will encompass unit testing, functional testing, system testing, and integration testing to ensure the application's robustness. Comprehensive testing not only enhances the overall user experience but also contributes to increased business prospects.

# Scope

## In-Scope

The document mainly targets the functional testing and validating of data in report output as per requirements specifications provided by client. It includes automated testing of specifications, functionalities, pages, search functionality, filter logic, performance, and features to verify their correctness and ensure they are free of bugs.

### Feature to be tested

The primary features to be tested of the Demo blaze e-commerce site are:

|  |  |
| --- | --- |
| **Module Name Features Tested** | |
| **Registration** | 1. Signup scenario with valid username and password 2. Signup scenario with existing username 3. Signup scenario with empty credentials |
| **Login** | 1. Login scenario with valid username and password 2. Login scenario with invalid username and valid password 3. Login scenario with valid username and invalid password 4. Login scenario with empty credentials |
| **Categories** | 1. Validate Category of Monitors 2. Validate Category of Laptops 3. Validate Category of Phones |
| **Products** | 1. Validate Device Name is displayed in Product Details 2. Validate Device Price is displayed in Product Details 3. Validate Device Description is displayed in Product Details 4. Validate Add to Cart button is displayed in Product Details |
| **Add to cart** | 1. Validate Product is successfully added to the cart 2. Validate Product is successfully removed from the cart 3. Validate Total Price is calculated correctly |
| **Checkout Process** | 1. Checkout products from cart 2. Checkout from cart having no products |

## Out-of-Scope

Feature not to be tested

* Payment method functionality: Since the payment gateway is handled by a third-party service provider, testing of this feature is not within the scope of this test plan.
* User Interfaces
* Website Security and Performance
* Database testing

# Testing Strategy

## Test Assumptions

Key assumptions for the Demoblaze e-commerce site project and test plan:

1. **Development Alignment:** The development team will adhere to the provided requirements specifications, ensuring alignment with the testing objectives.
2. **Resource Availability:** Adequate resources, including testing environments and relevant test data, will be provided as per the project schedule.
3. **Testing Expertise:** The testing team possesses the requisite skills and expertise to execute testing activities effectively.
4. **Scope Changes:** Any changes to the project scope or requirements will be communicated promptly to maintain alignment with testing efforts.
5. **Test Environment:** The test environment accurately mirrors the production environment, enabling simulation of real-world scenarios during testing.

## Test Approach

We plan to conduct White box (unit) and Blackbox tests (system/end user) to ensure comprehensive testing at different levels.

## Test Environment

**Hardware Requirements:** PC/Laptop with windows10/8.1/8 64-bit operating system, 8GB/16GB RAM, 500GB storage, i5/i7 processor

**Network Requirements:** Setup a LAN/WAN Gigabit and 1 internet line with the speed at least 5mb/s.

### Testing Tools:

|  |  |
| --- | --- |
| **Process** | **Tool** |
| Test plan creation | Microsoft Word |
| Test case creation | Microsoft Excel. |
| Test case tracking | Microsoft Excel. |
| Test case execution | Automation in Visual Studio (2022), NUnit .Net Framework, Selenium web driver, Chrome Browser (latest version) |
| Test case management | Microsoft Excel. |
| Defect management | Microsoft Word |
| Test reporting | Allure Report |
| Check list creating | Microsoft Excel |
| Project structure | Visual Studio Solution File (.sln), Source Code Folder and Allure Report screen shots |

### Top Test Performed:

**White Box Testing**: Each module will be sub-divided into further modules to be tested. Testers will understand the code, internal working of the system and test accordingly to make sure that all the validation is passed or failed. User Log in using email id and password.

1. Viewing various items in different categories.
2. Adding products to the cart.
3. Placing order.

**Black Box Testing:** End users will test the application without any knowledge regarding the application. User experience while performing each action will be considered. It exercises a system end-to- end testing. Basic tests performed are:

1. Front end design and UI testing including testing of the text box, fields, buttons, are working as expected or not in different pages like Place order, log in, sign up etc
2. Verify user log in using invalid inputs
3. Verify a logged user can view product and place order in sequential order.
4. Verify the security and session handling by the application
5. Verify by clicking the Phone tab will display Phone list only
6. Verify by clicking the Monitor tab will display Monitor list only
7. Verify by clicking the Laptop tab will display Laptop list only

### Non-Functional Test:

Testing non-functional aspects like performance, usability, reliability is important. It helps to reduce production risk and cost association with non-functional aspects of the product.

1. **Load Time:** It is the average amount of time a page takes to show up on your screen.
2. **Payload:** Assessing the efficiency of data transmission.
3. **Time to Interact:** It is the time taken by “Demoblaze” website to respond.

## Level of Testing

List the types of testing to be performed.

|  |  |  |
| --- | --- | --- |
| **Test Type** | **Description** | **Responsible Parties** |
| Unit Testing | Testing individual units or components | Developer |
| Integration Testing | Test modules or functions | Developer & Tester |
| System Testing | Testing the entire system to meet quality | Tester |
| Acceptance Testing | Test the application that satisfies client requirements. | Customers and end-users |

# Test Criteria

## Entry Criteria

|  |  |  |  |
| --- | --- | --- | --- |
| **Entry Criteria** | **Test Team** | **Technical Team** | **Comments** |
| All the testing tools have successfully installed and functioning properly. | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Done |
| Test data is available | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Available |
| Code has been merged successfully | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Done |
| Test environment is available. | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Available |
| QA resources have completely understood the requirements. | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Understood |

## Exit criteria

|  |  |  |  |
| --- | --- | --- | --- |
| **Exit Criteria** | **Test Team** | **Technical Team** | **Comments** |
| 100% Test Scripts executed | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Done |
| 90% pass rate of Test Scripts | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Pass |
| No open Critical and High severity defects | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | No any. |
| A certain level of requirements coverage has been achieved. | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Confirmed |
| All high-risk areas have been fully tested, with only minor residual risks left outstanding | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Confirmed |
| All test cases are captured in Allure Report | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | C:\Users\arxp\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\7F9Z3IW4\MC900441310[1].png | Done |

# Roles and Responsibilities

|  |  |  |
| --- | --- | --- |
| **Role** | **Resources** | **Responsibilities** |
| Project Manager | Muhammad Kamran | 1. Acts as a primary contact for development and QA team.  2. Responsible for Project schedule and the overall success of the project. |
| QA Lead | Muhammad Kamran | 1. Participation in the project plan creation/update process.  2.Planning and organization of test process for the release.  3.Coordinate with QA analysts/engineers on any issues/problems encountered during testing.  4.Report progress on work assignments to the PM |
| SQA  SQA  SQA | Adnan  Mairaj  Sabih | 1. Understand requirements  2. Writing and executing Test cases  3. Reviewing Test cases  4. Defect reporting and tracking  5. Retesting and regression testing  6. Bug Review meeting  7. Checking correctness of Test Data  8. Coordinate with QA Lead for any issues or problems |

# Test Effort Estimation Cost

|  |  |  |  |
| --- | --- | --- | --- |
| **Task Name** | **Start** | **Finish** | **Estimate Effort** |
| Create Test Planning Document | 01/04/24 | 05/04/24 | 170 man-hour |
| Create Test Case to Register User and create its account | 08/04/24 | 10/04/24 | 45 man-hour |
| Create Test Case Valid Login | 11/04/24 | 12/04/24 | 50 man-hour |
| Create Test Case Invalid Login | 15/04/24 | 16/04/24 | 35 man-hour |
| Create Test Case Add product to the cart | 17/04/24 | 19/04/24 | 55 man-hour |
| Create Test Case to Delete product from cart | 22/04/24 | 23/04/24 | 25 man-hour |
| Create Test Case for Valid Order Placement | 24/04/24 | 26/04/24 | 40 man-hour |
| Create Test Case for invalid Order Placement | 29/04/24 | 30/04/24 | 35 man-hour |
| Deploy to QA test environment | 02/05/24 | 03/05/24 | 25 man-hour |
| Functional Testing of features | 06/05/24 | 07/05/24 | 30 man-hour |
| System testing | 08/05/24 | 10/05/24 | 80 man-hour |
| User Acceptance Testing (UAT) | 13/05/24 | 14/05/24 | 70 man-hour |
| Create Test Report (Allure Report) | 14/05/24 | 14/05/24 | 10 man-hour |
| Deploy to Staging environment | 14/05/24 | 14/05/24 | 10 man-hour |
| Release to Production | 14/05/24 | 14/05/24 | 10 man-hour |
| **Total** |  |  | **520 man-hour** |

# TEST DELIVERABLES

Test deliverables are provided as below

## Before testing phase

Test plans document.

## After testing phase

Automated Test Executed Scripts

Test Result Report in Allure Report.