**PROJECT DOCUMENTATION:**

Basic Information:

Build Week Project

(https://magento.softwaretestingboard.com/)

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**TEST PLAN**

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**1. Introduction**

This test plan outlines the approach for testing the core functionalities of the e-commerce website, ensuring a seamless user experience across various features, including navigation, search, product pages, checkout, and responsiveness.

**2. Objectives**

* Validate the correct functionality of key website components.
* Identify and report defects to improve usability and performance.
* Ensure compatibility across different devices and browsers.
* Automate critical workflows using Cypress with the Page Object Model (POM) framework.

**3. Testing Scope:**

**Manual and Automation Testing:**

**Manual Testing:**

* Perform exploratory testing to identify usability issues and edge cases.
* Validate all workflows manually, focusing on critical features like the home page, product listing page, cart page, and checkout page.

**Automation(Cypress):**

* Automate critical workflows like adding products to the cart, completing checkout, and applying promo codes.
* Use Cypress for regression testing to ensure new updates don’t break existing functionality.

**POM via Cypress:**

**Home Page Functionality:**

* Validate the functionality of navigation menus
* Test the dynamic content such as promotional banners and featured products.

**Product Search and Filter Functionality:**

* Automate product searches and ensure that filters such as category, price, and rating return the correct results.
* Validate the sorting functionality(e.g. price, best sellers).

**Checkout Process:**

* Automate adding items to the cart and completing checkout.
* Use POM to automate the application of promo codes and verify the correct discount calculations.

**4. Testable Features:**

* Home Page Functionality
* Search Functionality
* Product Filters
* Product Page
* Cart Management
* Checkout Management
* Footer Links
* Responsiveness and Layout

**5. Testing Approach:**

**Testing Types:**

* **Functional Testing:** Verify the correct behavior of features.
* **UI Testing:** Check layout, responsiveness, and visual elements.
* **Compatibility Testing:** Test across multiple devices and browsers.
* **Navigate Testing:** Validate error handling for invalid inputs.

**Testing Methodologies:**

* **Exploratory Testing:** Identify edge cases and usability issues.
* **Regression Testing:** Ensure new updates do not break existing functionality.
* **Cypress:** Use POM to define the test scenarios.

**6. Roles/Responsibilities:**

**Team Lead:** Jatinder Kumar

**Responsibilities:**

* Create and manage the test plan.
* Create detailed test scenarios for functional workflows.
* Develop compressive test cases to cover manual testing.
* With the help of Cypress automation validate the functionality of the website.

**7. Test Schedule**

| **Task** | **Duration** |
| --- | --- |
| Test Plan Creation and Mind Map | 25-3-25 |
| Test Scenario and Case Creation | 26-3-2025 |
| Text Execution | 27-3-2025 |
| Automation Script Creation | 28-3-2025 |

**8. Test Deliverables**

* **Test Plan:** Document outlining testing strategy and objectives.
* **Test Scenarios:** High-level cases for workflow.
* **Test Cases:** Detailed test cases for manual execution.
* **Bug Report:** List of identified bugs with severity and resolution status.
* **Test Summary Report:** A comprehensive report summarizing testing activities and results.

**9. Entry and Exit Criteria**

**Entry Criteria:**

* Access to a stable website environment.
* Availability of test data for workflows.

**Exist Criteria:**

* All critical test cases were executed successfully.
* No unresolved high-priority defects.
* Test summary report submitted.

**10. Tools**

* **Manual Testing:** Google Sheets/Docs for test cases and bug tracking.
* **Automation Testing:** Cypress
* **Visually Represent:** Mind Map

**11. Risks and Mitigation Plans**

| **Risk** | **Mitigation Strategy** |
| --- | --- |
| Unstable Website | Perform testing during stable hours or scheduled builds. |
| Dynamic Elements | Use robust locators(CSS, XPath) and implement waits. |
| Time Constraints | Prioritize critical workflows for automation and manual testing. |

**12. Approvals:**

Masai will send different types of documents for client Approval like below:

* **Test Plan**
* **Scenarios**
* **Scripts**
* **Reports**

Testing will only continue to the next steps once these approvals are done.