Test Plan
SWAG LAB https://www.saucedemo.com/v1/
Hashan

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Objective

The objective of this test plan is to gain hands-on experience with real-world Software Quality Assurance (SQA) processes using **The SWAG LAB** (https://www.saucedemo.com/v1/), a dummy e-commerce web platform designed for beginner-level testers. This project aims to simulate an industry-like environment by enabling testers to:

- Develop industry similar test plans and strategies
- Practice effective test execution and defect reporting
- Create structured documentation and reporting artifacts
- Understand the end-to-end software testing lifecycle under the guidance of a mentor

Scope

Scope of Test Plan for **The SWAG LAB**:

1.Functional Testing:

- User Authentication & Authorization
- Product Management
- Shopping Cart
- Checkout Process

2.Data Validation Testing:

- Ensure that the API correctly validates input data, rejecting invalid requests.
- Test boundary values for input fields to check for any unexpected behavior.
- Validate the accuracy of data returned in responses.

3.Performance Testing:

- Measure the API's throughput and scalability to handle concurrent requests.
- Evaluate the API's behavior under high concurrent user loads to ensure stability.

4. Compatibility Testing:

- Test the website on different platforms, browsers, and devices to ensure cross-compatibility.

5. Regression Testing:

- Conduct regression testing after bug fixes or updates to ensure existing functionality remains intact for time saving.

Test Environments

The testing will be conducted primarily on a Windows 11 operating system, running on an Acer Aspire A515-54G laptop with an Intel Core i5-10210U processor and BIOS version Insider Corp. V1.12 (dated 08/23/2019). The system is a 64-bit PC with SMBIOS version 3.2. Testing will cover multiple screen sizes including 13.3", 14", 15.6", and 17.3" to ensure compatibility across different device types. Web browsers such as Google Chrome, Mozilla Firefox, and Microsoft Edge will be tested in their latest stable versions. Network connectivity will be provided via a wired fiber connection with high bandwidth to support performance testing.

Defect Reporting Procedure

The criteria for identifying a defect, such as deviation from the requirements, user experience issues, or technical errors. The **steps for reporting a defect**, such as using a designated template, providing detailed reproduction steps, and attaching screenshots or logs. The **process for triaging and prioritizing defects, s**uch as assigning severity and priority levels, and discuss with the mentors. The **communication channels a**re weekly meeting with zoom and WhatsApp messages.

Test Strategy

Step - 01

create test scenarios and test cases for the various features in Scope.

The first step is to create detailed test scenarios and test cases for the various features within the project scope. Begin by thoroughly understanding the user requirements in each section. Based on this understanding, design appropriate test scenarios and corresponding test cases. To ensure a well-structured approach, I start by sketching the user steps using the XMind tool. This helps in visualizing the flow and interactions. After this, I create detailed test scenarios and test cases, then prioritize them based on factors such as business impact, frequency of use, and risk.

Step - 02

We will follow the below best practices to make our Testing better

• **End to End Flow Testing** – We will test the end-to-end scenario which involve multiple functionalities to simulate the end user flows.

Test Schedule

Following is the test schedule planned for the project Task Time Duration

Task	Dates
▪ Creating Test Plan	1 week
▪ Test Case Creation	2 weeks
▪ Test Case Execution	1week
▪ Summary Reports Submission Date	1 week

Test Deliverables.

Deliverables	Description	Target Completion Date
Test Plan	Details on the scope of the Project, test strategy, test schedule, resource requirements, test deliverables and schedule	2025-07-20
Test Cases & Test Scenarios	Test Cases & Test Scenarios created for the scope defined	NA
Reports	Detailed description of the defects identified along with screenshots and steps to reproduce on a daily basis.	NA
Summary Reports	Summary Reports – Bugs by Bug#, Bugs by Functional Area, and Bugs by Priority	NA

Entry and Exit Criteria

Project initialization

Entry Criteria:

• Mentor has reviewed and provided feedback on the project proposal

Exit Criteria:

• Completion of the 5-week project timeline.

Test Execution

Entry Criteria:

• Test Scenarios and Test Cases have been reviewed and approved by the mentor.

Exit Criteria:

• Test Case Execution Reports and Defect Reports are completed and documented

Test Closure

Entry Criteria:

• All Test Case Reports and Defect Reports are finalized

Exit Criteria:

• Test Summary Report is prepared and approved

Tools

The following tools will be used throughout the project:

- **JMeter** – For performance and load testing
- **Selenium (Java)** – For automation of web application testing
- **Mind Mapping Tool** – For test planning and idea organization
- **Snipping Tool** – For capturing screenshots during testing and documentation
- **Microsoft Word and Excel** – For documenting test plans, reports, and tracking defects

Risks and Mitigations

- Risk: Knowledge gap in new technologies and best practices
    - Mitigation: Help of the LLM
- Difficulty in following the planned schedule
    - Mitigation: Help of the LLM

- Unexpected issues at the beginning of the project
    - Mitigation: Help of the Mentors

Approvals Process

The following types of documents will be submitted for Mentor Approval:

- Test Plan
- Test Scenarios
- Test Cases
- Reports

Testing will only proceed to the next phase once all the required approvals are obtained.