# Swag Labs Test Plan

## 1. Overview

This document serves as a high-level test plan for the Swag Labs Automation Testing Project. It details the scope, strategy, environment, test schedule, defect reporting, risks, and mitigation plans to ensure a structured testing process.

## 2. Scope

The scope of this project includes testing the core functionalities of the Swag Labs web application, ensuring that all critical workflows are functioning as expected.

## Inclusions

- User Authentication (Login & Logout)  
- Product Search & Filtering  
- Adding/Removing Items from Cart  
- Checkout Process  
- UI/UX Testing (Navigation, Layout, and Responsiveness)  
- Error Handling and Validations  
- Performance Testing (Basic Load & Response Time Checks)

## Exclusions

- Mobile App Testing  
- Database-Level Testing  
- Security and Penetration Testing

## 3. Test Environment

- Operating Systems: Windows 10, macOS  
- Browsers: Chrome, Firefox, Edge  
- Test Data: Sample user credentials and product selection

## 4. Test Strategy

We will perform Functional, Regression, and UI Testing using Playwright Automation Framework. The testing will follow these phases:

## 4.1 Test Approach

Step 1: Test Design & Planning  
- Identify test scenarios based on requirements  
- Create test cases using Playwright  
  
Step 2: Test Execution  
- Perform Smoke Testing to check major functionalities  
- Execute Functional & Regression Testing using Playwright  
- Report defects and validate bug fixes  
  
Step 3: Best Practices  
- Shift Left Testing: Begin testing early in the development cycle  
- Exploratory Testing: Identify hidden issues beyond scripted tests  
- End-to-End Testing: Simulate real user workflows

## 5. Defect Reporting Procedure

- Any deviation from expected behavior will be logged as a defect  
- Defects will be categorized based on severity and priority  
- Screenshots & Logs will be attached for better debugging  
- Bug reports will be shared daily with the development team

## 6. Roles & Responsibilities

Test Lead: Define strategy, review test cases, manage execution  
Automation Engineer: Develop & execute Playwright scripts  
Manual Tester: Perform exploratory and UI testing

## 7. Test Schedule

Test Planning: 01/03/2025 - 02/03/2025  
Test Case Design: 02/03/2025 - 03/03/2025  
Test Execution: 03/03/2025 - 05/03/2025  
Defect Fix Verification: 05/03/2025 - 06/03/2025  
Test Closure & Reporting: 06/03/2025 - 06/03/2025

## 8. Test Deliverables

Test Plan: 02/03/2025  
Test Cases: 03/03/2025  
Test Execution Report: 05/03/2025  
Defect Reports: Ongoing  
Final Test Summary: 06/03/2025

## 9. Entry & Exit Criteria

Entry Criteria:  
- Testable requirements are defined  
- Application build is available  
- Test cases are approved  
  
Exit Criteria:  
- All critical test cases executed  
- All high-priority defects are fixed  
- Final test summary is prepared

## 10. Risks & Mitigation

Unstable build: Delay execution until a stable version is available  
Limited testing time: Prioritize critical test cases  
Environment issues: Ensure backups and alternative setups

## 11. Tools Used

- Automation Framework: Playwright  
- Bug Tracking Tool: Jira  
- Reporting Tool: Playwright HTML Reports  
- Test Case Management: Google Sheets / Excel

## 12. Approvals

This document must be reviewed and approved before execution. Testing will proceed only after formal approval from the stakeholders.