

Software Requirements Specification (**SRS**)
Swag Labs E-Commerce Platform
(saucedemo.com)



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1.Introduction

-Purpose

This Software Requirements Specification (SRS) document provides a complete and validated description of the features, behavior, and requirements for the "Swag Labs" e-commerce web application, publicly available at <https://www.saucedemo.com/>. The primary purpose of this document is to serve as a foundational guide for the Quality Assurance (QA) team. It will be used to develop comprehensive test plans, test cases, and automated test scripts. It also serves as a clear point of reference for developers and project stakeholders.

-Scope

This document applies to the Swag Labs web application. The scope covers the complete user-facing functionality, including:

- 1) User Authentication (Login/Logout)
- 2) Product Catalog (Inventory) Viewing and Sorting
- 3) Shopping Cart Management
- 4) The complete Checkout Process

-The following are considered out of scope:

- 1) Backend administrative interfaces for managing products or users.
- 2) Third-party payment gateway integrations.
- 3) The underlying infrastructure or hosting platform.
- 4) The functionality of the "About" page link, which directs to an external site (saucelabs.com).

- Definitions, Acronyms, and Abbreviations

Term	Definition
SRS	Software Requirements Specification
QA	Quality Assurance
UI	User Interface
System	The Swag Labs web application (saucedemo.com)
User	An individual interacting with the system.
Item	A product listed for sale on the website.

Cart	The shopping cart where users place items before purchase.
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- References

- 1) Project Website: <https://www.saucedemo.com/>
- 2) Guiding Standard: IEEE Recommended Practice for Software Requirements Specifications, IEEE Std 830-1998.

-Overview

This document is organized into three main sections

1. Section 1 provides an introduction and overview of the SRS.
2. Section 2 gives a high-level description of the product, its functions, users, and constraints.
3. Section 3 details the specific functional, interface, and non-functional requirements, which will form the basis for testing activities.

2. Overall Description

-Product Perspective

The Swag Labs platform is a standalone, self-contained demonstration web application. Its purpose is to simulate a standard e-commerce workflow, providing a stable and predictable target for manual and automated software testing exercises. It is not intended for real commercial use.

-Product Functions

- ❖ User Authentication: The system provides a login interface to authenticate users based on predefined credentials.
- ❖ Product Browsing: Users can view a list of available products, sort them by different criteria, and view individual product details.
- ❖ Shopping Cart Management: Users can add products to and remove products from a shopping cart.
- ❖ Checkout: Users can proceed through a multi-step checkout process to simulate a purchase.
- ❖ Application State Management: Users can reset the application state (e.g., clear the shopping cart) via a specific menu option.

-User Characteristics

Username	Password	Description
standard_user	secret_sauce	A standard user with normal access and functionality.
locked_out_user	secret_sauce	A user who should be blocked from logging in.
problem_user	secret_sauce	A user for whom the UI exhibits bugs (e.g., product images do not match product names).
performance_glitch_user	secret_sauce	A user who experiences significant, intentional performance delays.

- Constraints

- The system shall be a web-based application accessible via a modern web browser.
- The system does not process real financial transactions.
- The product and user data is static and not persisted between sessions if the browser is cleared or reset.

- Assumptions and Dependencies

- The user has a stable internet connection.
- The user is using a compatible, modern web browser (e.g., Chrome, Firefox, Safari, Edge).
- The backend services for the application are available and running.

3. Specific Requirements

-Functional Requirements

Req_ID	Description	Type
FR-AUTH-001	The system shall display a login page at the root URL. This page must contain input fields for "Username" and "Password," and a "Login" button.	Functional
FR-AUTH-002	Upon entering valid credentials for `standard_user`, the system shall authenticate the user and redirect them to the Inventory/Products page .	Functional

FR-AUTH-003	Upon entering valid credentials for `locked_out_user`, the system shall display an error message: "Epic sadface: Sorry, this user has been locked out." The user shall remain on the login page.	Functional
FR-AUTH-004	Upon entering incorrect credentials (e.g., wrong username or password), the system shall display an error message: "Epic sadface: Username and password do not match any user in this service."	Functional
FR-AUTH-005	Submitting the login form with an empty "Username" field shall display an error message: "Epic sadface: Username is required."	Functional
FR-AUTH-006	Submitting the login form with an empty "Password" field shall display an error message: "Epic sadface: Password is required."	Functional
FR-AUTH-007	An authenticated user shall be able to log out of the system via the "Logout" link in the main navigation menu. Clicking "Logout" shall invalidate the session and redirect the user to the login page.	Functional
FR-AUTH-008	The login process for `performance_glitch_user` shall be intentionally delayed, taking significantly longer than for `standard_user`.	Functional
FR-AUTH-009	After logging in as `problem_user`, the product images on the inventory page shall not correspond to their respective product names.	Functional
FR-INV-001	The inventory page shall display a list of all available	Functional

	products. Each product listing must include a product image, name, short description, and price.	
FR-INV-002	Each product listing shall have an "Add to cart" button.	Functional
FR-INV-003	Clicking the "Add to cart" button for an item shall change the button text to "Remove" and increment the shopping cart badge counter by one.	Functional
FR-INV-004	Clicking the "Remove" button for an item on the inventory page shall revert the button text to "Add to cart" and decrement the shopping cart badge counter by one.	Functional
FR-INV-005	The system shall provide a sorting mechanism with the following options: Name (A to Z), Name (Z to A), Price (low to high), and Price (high to low).	Functional
FR-INV-006	Selecting a sorting option shall reorder the products on the page according to the selected criterion.	Functional
FR-INV-007	Clicking on a product's name or image shall navigate the user to that product's specific detail page (/inventory-item.html?id=X).	Functional
FR-INV-008	By default, the inventory page shall be sorted by "Name (A to Z)" upon loading.	Functional
FR-CART-001	Clicking the shopping cart icon in the header shall navigate the user to the cart page (/cart.html).	Functional
FR-CART-002	The cart page shall list all items that have been added. Each item entry must show the quantity (always 1),	Functional

	name, description, and price.	
FR-CART-003	Each item in the cart shall have a "Remove" button. Clicking this button shall remove the item from the cart.	Functional
FR-CART-004	The cart page shall have a "Continue Shopping" button that navigates the user back to the inventory page.	Functional
FR-CART-005	The cart page shall have a "Checkout" button that navigates the user to the first step of the checkout process.	Functional
FR-CART-006	When the cart page is accessed with no items in the cart, it shall display the page without any line items and the shopping cart badge shall not be visible.	Functional
FR-CHECK-001	The first step of checkout (/checkout-step-one.html) shall display a form requesting "First Name," "Last Name," and "Zip/Postal Code."	Functional
FR-CHECK-002	Clicking "Continue" on the first checkout step without filling in all fields shall display an error message (e.g., "Error: First Name is required").	Functional
FR-CHECK-003	After successfully filling the information form and clicking "Continue," the user shall be navigated to the checkout overview page (/checkout-step-two.html).	Functional
FR-CHECK-004	The checkout overview page shall display a summary of all items in the cart, payment information (static text), shipping information (static text), and a price total.	Functional
FR-CHECK-005	The price total shall correctly calculate and	Functional

	display the "Item total," "Tax," and the final "Total" (Item total + Tax).	
FR-CHECK-006	Clicking the "Finish" button on the overview page shall complete the simulated transaction and navigate the user to the "Checkout: Complete!" page (/checkout-complete.html).	Functional
FR-CHECK-007	The checkout completion page shall display a confirmation header ("THANK YOU FOR YOUR ORDER") and a confirmation message.	Functional
FR-CHECK-008	The checkout completion page shall have a "Back Home" button that returns the user to the inventory page. After a successful checkout, the shopping cart shall be empty.	Functional
FR-CHECK-009	A user shall be prevented from navigating to the checkout process URLs with an empty cart.	Functional
FR-CHECK-010	During the checkout process, using the browser's "Back" button from Step Two (Overview) shall return the user to Step One with their information pre-filled.	Functional
FR-NAV-001	The header, visible on all pages post-login, shall contain the app logo, a hamburger menu icon, and a shopping cart icon.	Functional
FR-NAV-002	The hamburger menu shall contain the following links: "All Items", "About", "Logout", and "Reset App State".	Functional
FR-NAV-003	The footer, visible on all pages, shall contain links to Twitter, Facebook, and LinkedIn. These links shall	Functional

	open the respective websites in a new tab.	
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-Non-Functional Requirements

Req_ID	Description	Type
NFR-PERF-001	For a `standard_user`, all page load times shall be under 2 seconds on a standard broadband internet connection.	Non-Functional
NFR-PERF-002	For a `standard_user`, the response time for UI actions (e.g., adding to cart, sorting) shall be under 500ms.	Non-Functional
NFR-PERF-003	For a `performance_glitch_user`, page load times shall be intentionally degraded and take more than 3 seconds.	Non-Functional
NFR-SEC-001	The password input field on the login page shall mask character entry.	Non-Functional
NFR-SEC-002	An unauthenticated user attempting to directly access any internal URL (e.g., /inventory.html) shall be redirected to the login page.	Non-Functional
NFR-SEC-003	After a user logs out, their session shall be invalidated, preventing the use of the browser's "Back" button to return to a logged-in state.	Non-Functional
NFR-USAB-001	The website shall maintain a consistent and logical layout across all pages (e.g., header and footer are always present).	Non-Functional
NFR-USAB-002	All interactive UI elements (buttons, links, input fields) shall provide clear visual feedback to the user (e.g., hover effects).	Non-Functional