**(SRS) for SauceDemo**

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## ****1.Introduction****

### ****\* Purpose****

This document outlines the functional and non-functional requirements for SauceDemo, a demo e-commerce website used for testing login functionalities and shopping workflows.

### ****\* Scope****

SauceDemo provides a test environment where users can log in, view products, add them to a cart, and complete checkout. This document covers the essential features, constraints, and expected behavior of the system.

### ****\* Intended Audience and Use****

* Developers working on web application security and testing.
* Testers evaluating website functionality and performance.
* Business stakeholders reviewing website usability.

## ****2. Functional Requirements****

### ****\* Authentication****

* Users must log in with a valid username and password.
* If incorrect credentials are entered, an error message appears.
* Users can log out securely from their session.

### ****\* Product Listing & Interaction****

* Users can view a list of available products, including names, descriptions, and prices.
* Users can sort products by:
  + Price .
  + Name .
* Users can click on a product to view its details.
* Users can add or remove products from the cart.

### ****\* Shopping Cart & Checkout****

* Users can view items in their cart, including quantity and total cost.
* Users can proceed to checkout and input personal details (name, postal code).
* Users can complete an order and receive a confirmation message.

## ****3. Non-Functional Requirements****

### ****\* Performance****

* The website should load within **3 seconds** on a stable internet connection.
* The system should handle multiple concurrent users without crashes.

### ****\* Security****

* Login credentials should be securely validated.
* Users should not be able to access another user's cart.
* Sensitive data (e.g., user details) should not be exposed in the browser console.

### ****\* Usability & Accessibility****

* The website should be responsive and functional on both desktop and mobile devices.
* The interface should be user-friendly and intuitive.
* Buttons and text should be readable and properly spaced for easy interaction.

## ****4. User Stories & Use Cases****

### ****\* User Stories****

1. As a user, I want to log in with my credentials so that I can access my account.
2. As a user, I want to add items to my cart so that I can purchase them later.
3. As a user, I want to sort products by price so that I can find the most affordable option.
4. As a user, I want to log out securely so that no one else can access my account.

### ****4.2 Use Cases****

#### ****\* Login Use Case****

* **Actor:** User
* **Precondition:** The user has valid login credentials.
* **Steps:**
  1. The user enters their username and password.
  2. The system validates the credentials.
  3. If valid, the user is redirected to the product page.
  4. If invalid, an error message is displayed.
* **Postcondition:** The user is logged into the system.

#### ****\* Add to Cart Use Case****

* **Actor:** User
* **Precondition:** The user is logged in.
* **Steps:**
  1. The user selects a product.
  2. The user clicks the "Add to Cart" button.
  3. The item appears in the shopping cart.
* **Postcondition:** The product is successfully added to the cart.

## ****5. Deliverables****

* A document listing functional & non-functional requirements, user stories, and use cases.
* Test cases to verify expected behavior .