**Automation Exercise Website and API Testing Project**

**Software Requirements Specification**

**Revision History**

|  |  |
| --- | --- |
| **Description** | **Comments** |
| **Version 1.0** | **Initial Draft** |
| **Version 1.1** | **Added API Testing Section, refined user stories** |
| **Version 1.2** | **Addressed minor formatting and typo fixes.** |

**Introduction**

**1.1 Purpose**

**The purpose of this document is to outline the requirements for testing the Automation Exercise website and its associated APIs. This document will be used by all stakeholders including developers and testers.**

**1.2 Scope**

**The scope of this project includes the testing of the website's core functionalities, including user registration, login, product browsing, shopping cart, checkout, contact form, subscription features, and API testing for product lists, brands, search, login verification, user account management, and user details.**

**Non-functional testing like stress and performance testing is within scope.**

**Automation testing is within scope.**

**Functional testing, external interfaces, and API testing are in scope and need to be tested.**

**The website will be compatible with Chrome, Firefox, and Edge.**

**1.3 Definitions, Acronyms, and Abbreviations**

|  |  |
| --- | --- |
| **Abbreviation** | **Word** |
| **SRS** | **Software Requirements Specification** |
| **API** | **Application Programming Interface** |
| **UI** | **User Interface** |

**1.4 References**

**N/A**

1. **Specific Requirements**

**The Automation Exercise website will have functionalities for:**

* **User registration and login.**
* **Product browsing and searching.**
* **Shopping cart and checkout process.**
* **Contact form submission.**
* **Subscription functionality.**
* **Product reviews.**
* **Invoice downloading.**
* **Website navigation and scroll functionality.**
* **API functionality for product lists, brands, search, login, user account management, and user details.**

**Description of the modules:**

|  |  |
| --- | --- |
| **Module Name** | **Description** |
| **User Registration** | **Allows new users to create an account.** |
| **User Login** | **Allows registered users to access their accounts.** |
| **Product Browsing** | **Allows users to view and search for products.** |
| **Shopping Cart** | **Allows users to add and manage items in their cart.** |
| **Checkout** | **Allows users to complete their purchases.** |
| **Contact Form** | **Allows users to contact customer support.** |
| **Subscription** | **Allows users to subscribe to newsletters.** |
| **Product Reviews** | **Allows users to add reviews to products.** |
| **Invoice Download** | **Allows users to download invoices after purchase.** |
| **Website Navigation** | **Allows users to navigate the website.** |
| **API Endpoints** | **Allows external applications to interact with the website's data.** |

**2.1 External Interface Requirements**

**2.1.1 User Interfaces**

**The website will have a user-friendly interface for all functionalities.**

**2.1.2 Hardware Interfaces**

**None.**

**2.1.3 Software Interfaces**

**API endpoints will be used for software interfaces.**

**2.1.4 Communications Interfaces**

**HTTP/HTTPS protocols will be used for communication.**

**3.1 Front End Details**

**Website will have the following module wise fields.**

* **User registration: Name, email, password, etc.**
* **User login: Email, password.**
* **Product search: Search bar.**
* **Shopping cart: Product list, quantity, total.**
* **Checkout: Address details, payment information.**
* **Contact form: Name, email, message.**
* **Subscription: Email.**
* **Product review: Rating, comment.**

**3.2 Technical Requirements**

**Website:**

* **Test Case 1: Register User**
* **Test Case 2: Login User with correct email and password**
* **Test Case 3: Login User with incorrect email and password**
* **Test Case 4: Logout User**
* **Test Case 5: Register User with existing email**
* **Test Case 6: Contact Us Form**
* **Test Case 7: Verify Test Cases Page**
* **Test Case 8: Verify All Products and product detail page**
* **Test Case 9: Search Product**
* **Test Case 10: Verify Subscription in home page**
* **Test Case 11: Verify Subscription in Cart page**
* **Test Case 12: Add Products in Cart**
* **Test Case 13: Verify Product quantity in Cart**
* **Test Case 14: Place Order: Register while Checkout**
* **Test Case 15: Place Order: Register before Checkout**
* **Test Case 16: Place Order: Login before Checkout**
* **Test Case 17: Remove Products From Cart**
* **Test Case 18: View Category Products**
* **Test Case 19: View & Cart Brand Products**
* **Test Case 20: Search Products and Verify Cart After Login**
* **Test Case 21: Add review on product**
* **Test Case 22: Add to cart from Recommended items**
* **Test Case 23: Verify address details in checkout page**
* **Test Case 24: Download Invoice after purchase order**
* **Test Case 25: Verify Scroll Up using 'Arrow' button and Scroll Down functionality**
* **Test Case 26: Verify Scroll Up without 'Arrow' button and Scroll Down functionality.1**

**API:**

* **API 1: Get All Products List (GET, 200)**
* **API 2: POST To All Products List (POST, 405)**
* **API 3: Get All Brands List (GET, 200)**
* **API 4: PUT To All Brands List (PUT, 405)**
* **API 5: POST To Search Product (POST, 200, search\_product parameter)**
* **API 6: POST To Search Product without search\_product parameter (POST, 400)**
* **API 7: POST To Verify Login with valid details (POST, 200, email, password)**
* **API 8: POST To Verify Login without email parameter (POST, 400, password)**
* **API 9: DELETE To Verify Login (DELETE, 405)**
* **API 10: POST To Verify Login with invalid details (POST, 404, email, password)**
* **API 11: POST To Create/Register User Account (POST, 201, all required user parameters)**
* **API 12: DELETE METHOD To Delete User Account (DELETE, 200, email, password)**
* **API 13: PUT METHOD To Update User Account (PUT, 200, all required user parameters)**
* **API 14: GET user account detail by email (GET, 200, email)**

**3.3 Functional validations**

* **Ensure all website and API functionalities work as described.**
* **Verify all input fields have proper validations.**
* **Verify all API endpoints return expected responses.**

**3.4 Classes / Objects**

**N/A**

**3.5 Non-Functional Requirements**

* **Usability: The website should be user-friendly.**
* **Reliability: The website and APIs should function consistently.**
* **Performance: The website and APIs should load and respond quickly.**
* **Compatibility: The website should be compatible with major web browsers.**

**3.6 Inverse Requirements**

**N/A**

**3.7 Design Constraints**

**N/A**

**3.8 Logical Database Requirements**

**N/A**

**3.9 Other Requirements**

**User Stories:**

* **As a new user, I want to register an account to make purchases.**
* **As a returning user, I want to log in with my credentials.**
* **As a user, I want to browse products by category and brand.**
* **As a user, I want to add products to my cart and view my cart before checkout.**
* **As a user, I want to complete the checkout process and place an order.**
* **As a user, I want to search for products by name.**
* **As a user, I want to subscribe to a newsletter.**
* **As a user, I want to contact customer support through a contact form.**
* **As a user, I want to add reviews to products.**
* **As a user, I want to download an invoice of my purchase.**
* **As a user, I want the page to scroll up and down.**

1. **Analysis Models**
2. **Change Management Process**

**Any changes to this SRS must be documented in the revision history.**