## **1. Introduction**

### **1.1 Purpose**

This document aims to define the functional and non-functional requirements for the Automation Exercise website, which is used for automation testing in an e-commerce environment.

### **1.2 Scope**

The website functions as a model for an e-commerce store, allowing users to register, log in, browse products, and conduct mock purchases for testing purposes. It provides a test environment to validate automation scripts and test cases related to e-commerce functionalities.

### **1.3 Definitions, Acronyms, and Abbreviations**

* **SRS**: Software Requirements Specification
* **UI**: User Interface
* **API**: Application Programming Interface
* **GU**: Guest User
* **RU**: Registered User

## **2. Specific Requirements**

### **2.1 User Roles**

The Automation Exercise website supports the following roles: loop

1. **Guest User (GU)** – Can browse products but has limited access to features such as checkout and order management.
2. **Registered User (RU)** – Can access all features, including cart, checkout, order tracking, and invoice downloads.

| **Module Name** | **Applicable**  **Roles** | **Description** |
| --- | --- | --- |
| **Register** | Guest User | Allows users to create an account. |
| **Login** | Registered User | Enables users to log in using their credentials. |
| **View product details** | Guest User  Registered User | Enables users to log in using their credentials. |
| **Filtering product** | Guest User  Registered User | Allows users to filter products based on categories and brands |
| **Cart** | Guest User  Registered User | Guest User :can add, remove, and update products in the cart.  Registered User:can place order & add comment and checkout & download invoice |
| **Contact us** | Guest User  Registered User | Users can submit queries through a contact form. |
| **Search** | Guest User  Registered User | Enables users to search for products using keywords. |
| **Log out** | Registered User | Users can log out from their accounts. |
| **Payment** | Registered User | Users can perform mock transactions. |
| **Download invoice** | Registered User | Allows users to download invoices. |
| **Writing review on product** | Guest User  Registered User | Users can write and submit reviews on products. |
| **Checkout** | Registered User | Users can complete their purchase process. |
| **Subscription** | Guest User  Registered User | Users can subscribe to newsletters. |

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### **2.2 Front End Details**

This section describes the Front end of automation exercise.

It also lists a few use cases to describe the functioning of the system

Following is a list of module wise fields

**Register**

* **Name**
* **Email address**
* **Signup button**

**Form after submitting**

* **Title**
* **Name**
* **Email**
* **Password**
* **Date of birth**
* **Sign up for our newsletter**
* **Receive special offers from our partners**
* **First name**
* **Last name**
* **Company**
* **Address**
* **Address2**
* **Country**
* **State**
* **City**
* **Zip code**
* **Mobile number**
* **Create account button**

**Log in**

* **Email address**
* **Password**
* **Login button**

**Cart**

* **Link to “products” page if cart is empty**
* **“Processed to check out” button**
* **“register or log in” box before check out process if not registered**
* **Box to “Add comment”**
* **“Place order” button**

**Payment**

* **Name on Card**
* **Card Number**
* **CVC**
* **Expiration (Month & year )**
* **“Pay and confirm “button**
* **“Download invoice “button**
* **“Continue” button to “Home” page**

**Contact Us**

* **Full Name**
* **Email Address**
* **Subject**
* **Message**
* **Choose File (Attachment)**
* **Submit Button**
* **Feedback Section**

**Search**

* **Search Input Field**
* **Search Button**

**Product view**

* **Product Image**
* **Product Name**
* **Price**
* **Add to Cart Button**
* **View Product Button**
* **Hover Effect**
* **Continue Shopping Button (Appears after adding a product to the cart).**

**Subscription Section**

* **Email address**
* **Button**

**View product details**

* **Product Image (Large display of the product)**
* **Product Name**
* **Price**
* **Availability Status (In Stock/Out of Stock)**
* **Product Description**
* **Category**
* **Brand**
* **Quantity Selector (Field to choose the number of items)**
* **Add to Cart Button**
* **Continue Shopping Button**
* **Review Section (Customer reviews and ratings)**
* **Write a Review Form (Fields for Name, Email, and Review Text)**

**Product Filtering**

* **Category Filters.**
* **Brand Filters.**
* **Sorting Options.**
* **Filter Results Display**
* **Add to Cart Button**

**Delete account**

* **Delete account button**
* **Account deletion success message**

**Logout**

* **Logout button**

## **3. System Requirements and Features**

### **3.1 Functional Requirements**

* **RF1**: **Users must be able to register with required data.**
* **RF2**: **Users must be able to log in using their credentials.**
* **RF3**: **Users must be able to browse products with descriptions and images.**
* **RF4**: **Users must be able to filter products based on categories and brands**.
* **RF5**: **Users must be able to add products to the shopping cart and it appears with the total amount .**
* **RF6**: **Users must be able to complete a mock purchase (checkout).**
* **RF7**: **Users should be able to contact support via a "Contact Us" form.**
* **RF8**: **Users must be able to search for products.**
* **RF9**: **Users must be able to log out or delete their account.**
* **RF10**: **The system should support payment transactions.**
* **RF11**: **Users should be able to download invoices.**
* **RF12**: **Users should be able to subscribe to newsletters.**
* **RF13**: **Users should be able to write and submit product reviews**
* **RF14**: **Users should be able to logout from their accoun**t
* **RF15**: **Users should be able to delete their accounts**

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### **Functional Specifications**

**User registration**

**F1**: **The system should allow users to create a new account by providing required details.**

**F2**: **If the email is already registered, the system should display "Email already exists."**

**F3**: **If any required fields are missing, the system should highlight them with an error message.**

**User login**

**F4**: **The system should allow registered users to log in using their email and password.**

**F5**: **If the email does not exist in the database, display error message"**

**F6**: **If the password or email is incorrect, display error message**

**Cart**

**F7: if cart is empty or all products in cart are deleted user can go to products page**

**F8: product quantity must be true**

**F9: if user want checkout must sign in so must be registered**

**F10: when registered user place order then check out can leave a comment or not**

**Payment**

**F11: if registered user is checking out must enter valid name of card ,number of card and CVC & Expiration with date after current Month and year**

**F12: if registered user checked out then he can download invoice which has total purchase amount with his name**

**Contact us**

**F13: The system must allow users to enter Full Name, Email, Subject, and Message.**

**F14: Users must be able to attach a file using the Choose File option (optional).**

**F15: Users must be able to submit the form using the Submit Button.**

**F16: The system must validate required fields before submission (e.g., email format, non-empty fields).**

**F17: A confirmation message must be displayed after successful submission.**

**F18: The system should store or send the submitted data to the support team.**

**F19: The Feedback Section must allow users to leave feedback.**

**Search**

**F20: The system must provide a Search Input Field for users to enter keywords.**

**F21: Users must be able to initiate a search using the Search Button.**

**F22: The system must return and display relevant products based on the search query.**

**F23: The system must allow partial keyword matching to improve search results.**

**F24: The system must highlight matching products dynamically.**

**Product view**

**F25: The system must display each product’s: Image, Name, Price.**

**F26: Users must be able to add a product to the cart using the Add to Cart Button.**

**F27: The system must confirm that the product has been added successfully (e.g., showing a success message or updating the cart count).**

**F28: Users must have the option to “Continue Shopping” after adding a product, allowing them to stay on the current page and browse more products.**

**F29: Users must be able to view product details using the View Product Button.**

**F30: When a user hovers over a product, a Hover Effect must display additional product details.**

**F31: The system must provide feedback on submission.**

**View product details**

**F32: The system must display the product image, name, price, description, category, and brand.**

**F33: Users must be able to adjust the quantity before adding the product to the cart.**

**F34: Users must be able to click “Add to Cart” to add the product to their shopping cart.**

**F35: The system must show a confirmation message after adding the product.**

**F36: Users must have the option to “Continue Shopping” without leaving the page.**

**F37: Users must be able to view existing customer reviews.**

**F38: Users must be able to write a review by entering their Name, Email, and Review Text, then submitting it.**

**F39: The system must validate the review form before submission.**

**Log out**

**F40: The system shall provide a "Logout" button accessible from the user interface.**

**F41: When the user clicks the "Logout" button, the system shall terminate the user’s session.**

**F42: The system shall redirect the user to the login page after a successful logout.**

**F43: The system shall ensure that logged-out users cannot access protected pages without re-authentication.**

**Delete account**

**F44: The system shall provide an option for users to delete their account from the account settings page.**

**F45: The system shall require users to confirm account deletion before proceeding.**

**F46: Upon confirmation, the system shall permanently delete the user's account and associated data.**

**F47: The system shall log the user out automatically after account deletion.**

**F48: The system shall prevent deleted users from logging in again with the same credentials.**

**Filtering products**

**F49: User can choose specific category and brand to view its specific products**

**Subscription Section**

**F50: The Subscription Section must allow users to enter their email to subscribe.**

**F51: Users must receive a success or error message after submitting their email in the Subscription Section.**

### **3.2 External Interface Requirements**

#### **3.2.1 User Interface (UI)**

* Responsive design for all devices.
* A user-friendly color scheme and layout.
* Clear and easy-to-use navigation buttons and elements.

#### **3.2.2 APIs**

* Support authentication via API.
* Provide an API to retrieve product data.
* API for managing the shopping cart and handling transactions.

### **3.3 Non-Functional Requirements**

* The website should load pages within **1-2 seconds**.
* The system availability should be **99.9%**.
* User data must be encrypted following modern security standards.