

Digital Egypt Pioneers Initiative (DEPI)

Software Requirements Specification (SRS)

Automation Exercise Website

Prepared by

- 1.Ahmed Fayed
- 2.Alaa Mohamed
- 3.Essam Ehab
- 4.Rawan Mohamed
- 5.Yousef Samy

2024/2025

1. Introduction

1.1 Purpose

This document outlines the software requirements for the Automation Exercise website. It is designed to serve as a testing ground for UI and API automation. Testers can use this platform to practice various scenarios related to user authentication, product browsing, shopping cart operations, checkout, and order management.

1.2 Scope

The Automation Exercise website includes functionalities such as:

- **User Authentication:** Registration, login, and account deletion.
- **Product Management:** Browsing, searching, and filtering products using brands and category.
- **Shopping Cart:** Adding/removing items, and card viewing.
- **Order Management & Checkout:** checkout processing, payment and invoice download.
- **Support:** Submitting inquiries via the contact form.

1.3 References

- **Automation Exercise website:** <https://www.automationexercise.com>

2. Specific Requirements

Module Name	Description
User Authentication (Login & Signup)	A user can log in using their registered email and password. If they do not have an account, they can sign up by providing their name and email. Upon successful authentication, the user can access the website's features.
Account Creation (Signup)	A user can create an account by providing their name, email, password, and personal details with Address Information. The system validates email for uniqueness and enforces password security rules.
Account creation confirmation	After a successful signup, the system confirms the creation of the account

Session Management	A logged-in user remains authenticated until they manually log out or their session expires due to inactivity.
Logout	A user can securely log out of their session, ensuring that no unauthorized access occurs after they leave the website.
Delete account	A user can delete their account permanently
Add to Cart	A user can add products to the cart from the product listing or details page. A confirmation popup appears after adding a product, allowing the user to either view the cart or continue shopping.
View Cart	A user can access the cart to review selected products, update quantities, or remove items before proceeding to checkout.
Checkout Process	A user can proceed to check out where they confirm their address, review order details before placing an order and add comment about the order.
Payment Processing	A user can enter their payment details, including cardholder name, card number, CVC, and expiration date, to complete the order.
Order Confirmation	After a successful payment, the system confirms the order and redirects the user to an order summary page.
Invoice Generation	Upon successful payment, an invoice is generated and made available for download in the user's account.
Product Listing	The Product Listing Module allows users to browse, search, and add products to their cart seamlessly. It provides filtering options, brand categorization, and easy access to product details for an enhanced shopping experience.
Subscription	Users are allowed to subscribe to newsletters and receive the latest updates from the website via email. It provides an intuitive interface for users to enter their email addresses and stay informed.
Contact Us	The Module provides users with a convenient way to get in touch with the website administrators. It includes fields for submitting inquiries, feedback, or support requests.

2.1 External Interface Requirements

2.1.1 User Interfaces

- The website can be accessible via a web browser.
- The UI should be responsive and compatible with various screen sizes.

2.1.2 Software Interfaces

- RESTful API endpoints available for authentication, product management, cart, and order operations.

2.1.3 Communications Interfaces

- Supports HTTP and HTTPS protocols.
- API responses should be in JSON format.

3. System Features

3.1 Front End Details

This section describes the front-end elements and UI components for key functionalities.

User Authentication (Login & Signup)

- **Login Form**
 - **Email**
 - **Password**
 - **Login Button**
- **Signup Form**
 - **Name**
 - **Email**
 - **Signup Button**
- **Account creation form**
 - **Title**
 - **Name**
 - **Email**
 - **Password**
 - **Date of Birth**
 - **Sign up for our newsletter!**
 - **Receive special offers from our partners!**
 - **First name**
 - **Last name**
 - **Company**
 - **Address**
 - **Address 2**

- **Country**
- **State**
- **City**
- **Zipcode**
- **Mobile Number**
- **Create Account button**
- **Account Created confirmation**
 - **Continue button**
- **Logout**
 - **Logout button**
- **Delete Account**
 - **Continue button**

All Products

- **Search product field**
- **Category List**
- **Brand List**
- **Product List**
 - **Add to card button**
 - **View product button**
 - **Price**
 - **Product name**
- **product detail page**
 - **Product Photo**
 - **product name**
 - **category**
 - **price**
 - **availability**
 - **condition**
 - **brand**
 - **review fields: Name, Email Address, review message, and submit button**

Cart

- **empty cart**
- **Nonempty Cart**

Add to cart

- **pop up message**
 - **view cart button**
 - **continue shopping**

Checkout Process

- **Address Details**
- **BILLING ADDRESS**
- **Ordered product List**
- **Comment field**
- **Place order button**

Payment Processing

Order Confirmation

Subscription

- **Email field**
- **Submit button**

Contact Us

- **Form Fields**
 - **Name**
 - **Email**
 - **Message**
 - **Submit Button**

3.2 Technical Requirements

- **User Authentication (Login & Signup)**

Name

T1:name cannot be blank.

T2: Only alphabetic characters and spaces allowed

T3: no numbers are allowed

T4: Special characters are not allowed.

T5: Must not start or end with space.

Email

T6: Email cannot be blank.

T7: Must follow a valid email format (example@domain.com).

- **Account Creation (Signup)**

Password

T8: Password cannot be blank.

T9: Minimum 8 characters.

T10: Must contain At least one uppercase letter

T11: Must contain: At least one lowercase letter

T12: Must contain: At least one number

T13: At least one special character

Date of Birth

T14: Required field (cannot be blank).

T15: Users must select Day, Month, and Year from dropdowns.

Newsletter Signup

T16: Checkbox for putting into the newsletter.

Special Offers Signup

T17: Checkbox for opting into partner offers.

Address Information Form

First Name & Last Name

T18: Both fields are required.

T19: Only alphabetic characters allowed.

Company

T20: name cannot be blank.

T21: Only alphabetic characters and spaces allowed

T22: No numbers are allowed

T23: Special characters are not allowed.

T24: Must not start or end with space.

Address

T25: Address Field must not be blank

T26: First character cannot be space

T27: Special characters are not allowed

Address 2

T28: Address Field must not be blank

T29: First character cannot have space

T30: Special characters are not allowed

Country

T31: drop list to choose the country

T32: country must not be blank

State

T33: Numbers are not allowed

T34: State must not be blank

T35: Special characters are not allowed

T36: First character cannot have space

City

T37: Special characters are not allowed

T38: City Field must not be blank

T39: Numbers are not allowed

T40: First character cannot have space

Zip code

T41: Characters are not allowed

T42: zip Code must not be blank

T43: Special characters are not allowed

T44: First character cannot have space

Mobile Number

T45: Mobile no must not be blank

T46: Special characters are not allowed

T47: Character are not allowed

T48: First character cannot have space

- **Checkout Process**

Shipping Address

T49: Address field must not be blank.

T50: First character cannot have space.

T51: Special characters (e.g., !, @, #) are not allowed

Billing Address

T52: Address field must not be blank.

Discount code

T53: Valid codes must reduce the total amount correctly.

Comment message

T54: Comment message can have characters, numbers, and spaces

- **Payment Processing**

Credit Card

T55: Card number must be numeric (no letters/special characters)

T56: CVV must be 3-4 digits.

T57: Expiry date must be in MM/YY format.

PayPal

T58: Redirect must use HTTPS for secure payment.

- **Subscription**

Email

T59: Email cannot be blank.

T60: Must follow a valid email format (example@domain.com).

- **Contact Us**

Name

T61: name cannot be blank.

T62: Only alphabetic characters and spaces allowed

T63: No numbers are allowed

T64: Special characters are not allowed.

T65: Must not start or end with space.

Email

T66: Email cannot be blank.

T67: Must follow a valid email format (example@domain.com).

Message

T68: Comment message can have characters, numbers, and spaces

3.3 Functional validations

- **User Authentication (Login & Signup)**

F1: Users must log in using a valid email and password.

F2: New users must sign up with a unique email and password.

F3: The system must verify credentials before granting access.

F4: Users receive an error message for incorrect login attempts.

- **Account Creation (Signup)**

F5: Name and email fields must match the inputs of Sign-Up form

F6: Users must provide valid password and required personal details to register.

F7: The system must validate and store user details securely.

F8: Duplicate email addresses are not allowed.

F9: Users receive a confirmation message after successful registration.

F10: If Newsletter Signup is checked, the email is added to the marketing list.

F11: If Special Offers Signup is checked, the email is added to the partner marketing list.

- **Session Management**

F12: Users remain logged in until they manually log out or the session expires.

F13: The system must auto-log out inactive users after a specified period.

F14: Secure session handling ensures unauthorized access is prevented.

- **Logout**

F15: Users must be able to log out from their account at any time.

F16: Logging out must end the session and require re-authentication for future access.

- **Delete account**

F17: Users can request to delete their account permanently.

F18: The system must confirm account deletion before processing.

F19: Deleted accounts must remove personal data per data protection regulations.

- **Product Listing & Search**

F20 Product Listing: All available products must be displayed correctly.

F21: Product Search: Users should be able to search for products using keywords.

F22: Filtering & Sorting: Filtering (by category, price, brand.) and sorting (low to high, new arrivals, etc.) must work correctly.

- **Product Details & Interaction**

F23 Product Details Page: Product name, price, description, images, and stock availability must be displayed correctly.

F24: Product Image Zoom: Users should be able to zoom in on product images.

F25: Stock Availability: "Out of Stock" products should not be purchasable.

- **Cart Management**

F26: Add to Cart: Users should be able to add products to the cart.

F27: Remove from Cart: Users should be able to remove items from the cart.

F28: Update Quantity: Users should be able to update product quantity in the cart.

F29: Empty Cart Validation: If the cart is empty, the checkout button should be disabled.

F30: Items should be cleared in the cart when the user logs out and logs in again.

F31: Guest users should be able to add products to the cart and view them.

- **Checkout Process**

F32: Guest users can proceed to check out only after logging in or registering.

F33: Guest User If cart is empty, checkout is disabled.

F34: User Billing address can be different from shipping address.

F35: User Applied discount codes reflect the correct total amount.

F36: System Out-of-stock items are flagged and removed during checkout.

F37: User Order Summary displays correct items, quantities, and total.

- **Payment Processing**

F38: User Multiple payment methods (credit card, PayPal, etc.) are available.

F39: User Invalid card details (e.g., wrong CVV, expired date) display error message.

F40: System Payment gateway redirects to a secure (HTTPS) page.

F41: System Successful payment triggers a unique transaction ID generation.

F42: System Payment failures allow retries or alternative payment methods.

- **Order Confirmation**

F43: User Order number is generated and visible on the confirmation page.

F44: System Confirmation email is sent to the User's registered email address.

F55: System Email includes order number, summary, and estimated delivery date.

- **Invoice Generation**

F56: System Invoice is automatically generated after successful payment.

F57: System Invoice numbers are unique, sequential, and non-reusable.

F58: User Invoice is downloadable as a PDF or viewable on the website.

F59: System Invoice includes billing/shipping addresses, tax breakdown, and itemized list Product Listing

- **Subscription**

F60: Users can subscribe to premium services or newsletters.

- **Contact Us**

F61: Users can submit inquiries or feedback through the contact form.

F62: The system must send a confirmation email upon submission.

4. API Testing

1. Get All Products List

- API URL: /api/productsList
- Request Method: **GET**

2. POST To All Products List

- API URL: /api/productsList

- Request Method: **POST**

3. Get All Brands List

- API URL: /api/brandsList
- Request Method: **GET**

4. PUT To All Brands List

- API URL: /api/brandsList
- Request Method: **PUT**

5. POST To Search Product

- API URL: /api/searchProduct
- Request Method: **POST**

6. POST To Search Product without search_product parameter

- API URL: /api/searchProduct
- Request Method: **POST**

7. POST To Verify Login with valid details

- API URL: /api/auth/verifyLogin
- Request Method: **POST**

8. POST To Verify Login without email parameter

- API URL: /api/auth/verifyLogin
- Request Method: **POST**

9. DELETE To Verify Login

- API URL: /api/auth/verifyLogin
- Request Method: **DELETE**

10. POST To Verify Login with invalid details

- API URL: /api/auth/verifyLogin [deleteAccount](#)
- Request Method: **POST**

11. POST To Create/Register User Account

- API URL: /api/auth/createAccount
- Request Method: **POST**

12. DELETE METHOD To Delete User Account

- API URL: /api/ deleteAccount
- Request Method: **DELETE**

13. PUT METHOD To Update User Account

- API URL: /api/updateAccount
- Request Method: **PUT**

14. GET User Account Detail by Email

- API URL: /api/ getUserDetailByEmail
- Request Method: **GET**