

## Project Name:

Cart shop

## Team Members:

Abdelrhman Ayman Saad:2205033

Malak Mohamed Osman: 2205059

Ahmed Mohamed Adel:2205096

Fadya Hesham Elorabi:2205177

## **Problem Statement:**

- Our project aims to address the challenges and inefficiencies in the online clothing shopping experience. Traditional online clothing stores often lack validations, and navigating through vast product catalogs can be overwhelming for users.

## **Objectives:**

- Implement a user-friendly interface for browsing and purchasing clothes.
- Streamline the signup and login process for seamless user authentication.
- Integrate a secure payment gateway for smooth transactions.

## **Project Features:**

- Outline the key functionalities of your project. What features and capabilities are needed to achieve the objectives?
- 1. User Authentication:**
    - Allow users to sign up and log in securely.
    - Differentiate between client, admin and seller users.
  - 2. Product Catalog:**
    - Display a wide range of clothing items.
    - Categorize products for easy navigation.
  - 3. Shopping Cart and Checkout:**
    - Enable users to add items to their cart and proceed to checkout seamlessly.
    - Integrate with a secure payment gateway to facilitate transactions.
  - 4. Payment Card Validation:**
    - Implement validation checks for payment card information during checkout.
    - Verify the correctness and validity of card numbers, expiration dates, and security codes.
    - Display appropriate error messages for invalid card details and guide users to provide correct information.
  - 5. Secure Database Management:**

- Ensure the security of user data and sensitive information stored in the database.
- Utilize encryption techniques to safeguard user passwords and personal data.

#### 6. Transaction Limit Control:

- Enforce restrictions on the number of transactions users can make within a specified time period.
- Set rules to prevent users from making multiple transactions within a short duration to enhance security and prevent misuse.
- Implement a system to track and monitor user transactions, enforcing a minimum time gap between consecutive transactions.

#### 7. Inventory Management:

- Maintain a well-organized database to manage product inventory.
- Implement mechanisms to track the quantity of each product available in stock.
- Ensure real-time updates to inventory levels as users add items to their carts or complete purchases.
- Display accurate information to users regarding product availability, preventing them from adding out-of-stock items to their carts.

T C	Test Scenario	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result
1	User Sign-Up Process	Verify that a new user can successfully sign up on the website	User is on the sign-up page of the website	Navigate to the sign-up page of the website.  Enter valid user details in the sign-up form (e.g., username, email, password).  Click on the "Sign Up" button to	Username: ahmed  Email: <a href="mailto:john.doe@example.com">john.doe@example.com</a>  Password: Test@123  And other required info	1.The user should be redirected to the login page after successful sign-up.  2.User credentials should be <b>stored securely</b> in the database.  3.Upon subsequent

				submit the form.		login attempts, the user should be able to access the website using the registered email and password.
2	User Login Process	Verify that <b><u>registered</u></b> users can log in to website	User is on the login page of the website	<p>1.Navigate to the login page of the website.</p> <p>2.Enter <b><u>valid</u></b> login credentials (email and password) for a registered user.</p> <p>3.Click on the "Login" button to submit the login form</p>	<p>Email: <a href="mailto:john.doe@example.com">john.doe@example.com</a></p> <p>Password: Test@123</p>	<p>1.Upon successful login, the user should be redirected to the homepage/dashboard.</p> <p>2.The user session should be initialized, allowing access to restricted areas of the website.</p> <p>3.Incorrect login credentials should result in an error message prompting the user to enter valid credentials.</p>
3	Login with Nonexistent Account	Verify the behavior when attempting to log in with a non-existent account.	User is on the login page of the website.	<p>1.Navigate to the login page of the website.</p> <p>2.Enter an email and password for an account that does not</p>	<p>Email: <a href="mailto:nonexistent@example.com">nonexistent@example.com</a></p> <p>Password: NonexistentPassword123</p>	<p>1.Upon submission of the login form with non-existent account credentials, the system should <b><u>display</u></b> an error <b><u>message</u></b></p>

				<p>exist in the system.</p> <p>3.Click on the "Login" button to submit the login form.</p>		<p><b><u>indicating that the account does not exist.</u></b></p> <p>The login page should <b><u>remain accessible</u></b> for the user <b><u>to retry with valid credentials</u></b></p>
4	Signup with Password Less Than 8 Characters	Verify the behavior when attempting to sign up with a password less than 8 characters	User is on the signup page of the website	<p>1.Navigate to the signup page of the website.</p> <p>2.Enter user details including email, username, and 1 short password</p> <p>3.Click on the "Sign Up" button to submit the signup form.</p>	<p>1.Email: <a href="mailto:testuser@example.com">testuser@example.com</a></p> <p>2.Username: TestUser123</p> <p>3.Password: Any password less than 8 chars</p>	<p>1.Upon submission of the signup form with a password less than 8 characters, the system should <b><u>deny the signup</u></b> attempt.</p> <p>2.The system should <b><u>display</u></b> an error <b><u>message indicating that the password must be at least 8 characters long for security purposes.</u></b></p> <p>3.The error message should prompt the user to enter a password that meets the minimum length requirement.</p>

						4.The user <b><u>should not be signed up</u></b> , and the signup page should <b><u>remain accessible</u></b> for the user to retry with a valid password
5	Payment System Validation for Card Expiry	Verify the payment system's validation for the card expiry date.	User is on the payment page and has entered the card details.	<p>1.Enter the card details including card number, CVV, and expiry date.</p> <p>2.<b><u>Ensure</u></b> that the <b><u>expiry date</u></b> entered is either in the <b><u>future or within the valid range</u></b></p> <p>3.Click on the Submit</p>	<p>1.Card Number: [Provide valid card number]</p> <p>2.CVV: [Provide valid CVV]</p> <p>3.Expiry Date: [Provide expiry date within or beyond the current date]</p>	<p>1.if the expiry date entered is within the <b><u>valid range</u></b> (not expired), the payment <b><u>should proceed successfully</u></b></p> <p>2.If the expiry date is in the <b><u>past or beyond the valid range</u></b> the payment system should <b><u>display an error message</u></b> indicating that the card has expired or is invalid.</p> <p>3.The error message should prompt the user to re-enter a valid expiry date The payment process should <b><u>not proceed until a valid expiry date is entered.</u></b></p>

6	Prevent Multiple Transactions Within 1 Hour Gap	Verify that users cannot make multiple transactions within a 1-hour gap.	User has initiated a transaction	<p><b><u>1.After completing a transaction, attempt to make another transaction within 1 hour using the same user account or device</u></b></p> <p>2.Submit the payment details and proceed to make the second transaction.</p>	Expiration date	<p>1.if <b><u>attempting</u></b> to make a <b><u>second transaction within 1 hour of the first</u></b> transaction, the <b><u>system</u></b> should <b><u>prevent</u></b> the transaction from being processed.</p> <p>The system should display an error message informing the user that multiple transactions cannot be made within a 1-hour gap</p>
7	Quantity Validation During Item Addition	<b><u>Verify</u></b> that the system checks if the entered <b><u>quantity</u></b> of an item <b><u>exists</u></b> in the database <b><u>before adding it</u></b>	User is on the product page and intends to add a certain quantity of an item to their cart.	<p>1.Enter the desired quantity of the item in the designated field.</p> <p>2.Click on the "Add to Cart" button</p>	<p>1.Item: [Name or ID of the item]</p> <p>2.Desired Quantity: [Quantity entered by the user]</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>1.If the entered quantity <b><u>exists</u></b> in the database and is available for purchase, the item should be <b><u>successfully</u></b> added to the cart.</p> <p>2.If the entered quantity does <b><u>not exist</u></b> in the database or is not available for purchase (e.g., out of stock), the system should <b><u>prevent</u></b> the item from <b><u>being added to the cart</u></b></p>
8	Card Number	Verify that the system <b><u>validates</u></b> the	User is on the payment page and has	1.Enter the card number in the	1.Card Number: [Card number	1.If the entered card number <b><u>follows</u></b> the correct format

	Validation	<b><u>correctness</u></b> of the entered <b><u>card</u></b> number during payment.	entered their card details.	designated field. 2. Attempt to proceed with the payment	entered by the user]	and passes the <b><u>validation</u></b> algorithm, the payment should proceed <b><u>successfully</u></b>  2. If the entered card number does <b><u>not follow</u></b> the correct format or fails the validation algorithm:  3. The system should <b><u>prevent</u></b> the payment from being processed.  4. The system should display an error message indicating that the card number is incorrect
9	Logging in with Unmatched Password	<b><u>Verify</u></b> that the <b><u>system prevents</u></b> logging in <b><u>when the entered password does not match the user's</u></b> stored password	User attempts to log in with their registered email address	1. Enter the registered email address in the designated field. 2. Enter an incorrect password (password that does not match the user's stored password). 3. Click on the "Sign In"	1. Email: [Registered email address of the user] 2. Password: [Incorrect password entered by the user]	1. The <b><u>system should detect</u></b> that the entered <b><u>password does not match</u></b> the user's stored password. 2. The system <b><u>should prevent</u></b> the user from logging in. 3. An <b><u>error message should be</u></b>



				button login credentials		<b><u>displayed</u></b> indicating that the login attempt failed due to incorrect credentials
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**Github Link:**

**<https://github.com/AbdelrahmanAyman0011/Cart.git>**