Project Name: SafeHaven Banking System

Objective: To ensure the banking website's core functionalities, such as login, fund transfers, withdrawals, account management, and transaction history, work seamlessly and securely while providing a user-friendly experience.

Scope:

1. Validate the login functionality for registered users.
2. Test fund transfer between accounts within the bank and to external accounts.
3. Verify withdrawal transactions through online requests and ATM operations.
4. Check transaction history for accuracy and transparency.
5. Evaluate account balance updates after each transaction.
6. Ensure the security of sensitive user data, including login credentials and transaction details.
7. Confirm the proper functioning of account creation and management features.
8. Assess the website's responsiveness.

Test Scenarios:

TEST ID	TEST SCENARIO	EXPECTED RESULT	STATUS
TC01	Login Functionality	User successfully logs in and is redirected to the dashboard with their account overview.	Pass
TC02	Invalid Login	User is shown an error message "Invalid username or password" and cannot access the system.	Pass
TC03	Transfer Funds (Internal Accounts)	The correct transfer amount is deducted from the source account and credited to the destination account.	Fail

TC04	Transfer Funds (External Accounts)	The transfer is completed successfully, and the external account receives the funds while the source account is debited.	Fail
TC05	Withdrawal Functionality (ATM)	User is able to withdraw the requested amount and the balance in the account is updated accordingly.	Pass
TC06	Transaction History Display	All transactions are displayed in the correct order, with correct amounts and dates.	Pass
TC07	Insufficient Funds (Transfer/Withdraw)	The system prevents the transaction and displays a message such as "Insufficient funds."	Pass
TC08	Logout Functionality	User is logged out and redirected to the login page with a message "You have been logged out."	Semi-pass
TC09	Security (Data Encryption)	All sensitive information, such as login credentials and transaction details, is encrypted and protected.	Pass

Defect Report

Defect ID: DEF001

Module: Transfer Funds (Internal account, External account)

Defect Title: Negative Transfer Amount Is Accepted and Processed

Summary: When a user enters a negative value for a transfer amount, the system incorrectly accepts and processes the negative amount, crediting the destination account with a negative balance and/or deducting the negative amount from the source account.

Steps to Reproduce:

1. Log in to SafeHaven.
2. Navigate to the "Funds Transfer" section.
3. Select a source account (Savings Account) with sufficient balance.
4. Select a destination account (Checking Account).
5. Enter a negative transfer amount (-₱500).
6. Click "Transfer" and confirm the transaction.
7. Check the source and destination account balances.

Actual Result: The system accepts the negative amount as valid and proceeds to transfer the negative value. The destination account balance is updated incorrectly (a credit of -₱500), and the source account is erroneously debited with a negative amount.

Expected Result: The system should validate that the transfer amount is positive and display an error message if a negative value is entered. No transfer should occur for negative amounts.

Severity: High
Priority: High

Environment:

- **OS:** Windows 10
- **Browser:** Chrome
- **Build Version:** 131.0.6778.241
- **Device:** HP ProBook 4330s

Comment: This issue presents a critical flaw in the transfer functionality, as it allows users to perform unintended operations (such as transferring a negative amount). This

could potentially lead to incorrect account balances and financial discrepancies. Immediate attention is required to enforce input validation on the transfer amount field.

Cause of root: The Funds Transfer Module lacks proper input validation for the transfer amount. Negative numbers are being accepted by the input field, and no validation check prevents the transaction from processing negative values.

Suggested Fix:

1. Ensure that the transfer amount field only accepts positive values and rejects negative amounts.
2. Display an appropriate error message such as "Transfer amount cannot be negative" when the user enters a negative number.
3. Revise the transaction logic to prevent the processing of negative values, ensuring that only valid transactions are executed.

Defect ID: DEF002

Module: Logout Model

Defect Title: Automatic Logout Without Alert or Confirmation

Description: When the user clicks the "Logout" button, they are logged out immediately without any confirmation or alert saying that the logout was successful. This could lead to confusion, as the user has no indication that they have been logged out until they try to access another page.

Steps to Reproduce:

1. Log in to the SafeHaven platform.
2. Navigate to the user profile or account settings page.
3. Click the "Logout" button.
4. Observe the behavior after clicking the "Logout" button.

Actual Result: The user is immediately logged out, and there is no confirmation message or alert stating that the logout was successful. The user is just redirected to the login page without any notification.

Expected Result: After clicking "Logout," the user should receive a confirmation message ("You have been logged out successfully.") or a redirect with a visual confirmation, ensuring that the user knows they have logged out successfully.

Severity: Low
Priority: Low

Environment:

- **OS:** Windows 10
- **Browser:** Chrome
- **Build Version:** 131.0.6778.241
- **Device:** HP ProBook 4330s

Comment: The lack of confirmation after logging out can lead to confusion for users, as they may not realize they have been logged out successfully. Adding an alert or confirmation message will improve the user experience and provide better clarity regarding the logout process.

Root Cause: The Logout Functionality module does not include an alert or notification mechanism to inform the user of a successful logout. The system executes the logout action immediately without any user feedback.

Suggested Fix:

1. Add a confirmation message or alert ("You have logged out successfully.") when the user clicks "Logout."