WCU Banking Web App Testing

CS 380 Group Project

Alex Ryse, Garrett Kraxberger, Victoria Cendejas Garibay

Table of Contents

[User Interface (UI) 3](#_Toc199496150)

[User Authentication (UA) 6](#_Toc199496151)

[ATM Locator (ATM) 32](#_Toc199496152)

[Display Account Information (DAI) 38](#_Toc199496153)

[Transfer Funds (TF) 42](#_Toc199496154)

[Withdraw Funds (WD) 51](#_Toc199496155)

[Deposit Funds (DF) 61](#_Toc199496156)

# User Interface (UI)

|  |  |
| --- | --- |
| Test Case ID | UI001 |
| Test Case Title | UI Page Load Time (Positive) |
| Description | This test case verifies that all UI pages of the Wildcat Credit Union Web App loads completely within 3 seconds under normal network conditions, ensuring a responsive user experience. |
| Related Requirement(s) | All UI pages must be loaded in less than 3 seconds in normal network conditions. |
| Preconditions | Access to a stable internet connection simulating "normal network conditions" (e.g., broadband, no active downloads or heavy network usage). Browser cache is cleared before each execution of the test. The Wildcat Credit Union Web App server is running and accessible. |
| Test Steps | 1. Open a new browser window/tab. 2. Clear browser cache and cookies. 3. Open the developer tools and navigate to the "Network" tab. 4. Ensure network throttling is set to "No throttling" or "Online" (representing normal network conditions). 5. Record the start time. 6. Navigate directly to the Wildcat Credit Union Web App's page. 7. Observe and record the total page load time as reported by the browser's developer tools. 8. Visually confirm that all elements of the page (text, images, input fields, buttons) are fully rendered and interactive. |
| Test Data | URL for the Wildcat Credit Union Web App page: (URL not yet deployed) |
| Expected Result | All the UI pages must load completely, with all UI elements visible and interactive, within 3 seconds as measured by browser developer tools. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UI002 |
| Test Case Title | UI Page Load Time (Negative – Exceeds Limit) |
| Description | This test case verifies that if the UI pages of the Wildcat Credit Union Web App takes longer than 3 seconds to load completely under normal network conditions, it is considered a failure, as per the performance requirement. |
| Related Requirement(s) | All UI pages must be loaded in less than 3 seconds in normal network conditions. |
| Preconditions | Access to a stable internet connection simulating "normal network conditions" (e.g., broadband, no active downloads or heavy network usage). Browser cache is cleared before each execution of the test. The Wildcat Credit Union Web App server is running and accessible. |
| Test Steps | 1. Open a new browser window/tab. 2. Clear browser cache and cookies. 3. Open the developer tools and navigate to the "Network" tab. 4. Ensure network throttling is set to "No throttling" or "Online" (representing normal network conditions). 5. Record the start time. 6. Navigate directly to the Wildcat Credit Union Web App's page. 7. Observe and record the total page load time as reported by the browser's developer tools. 8. Visually confirm that all elements of the page (text, images, input fields, buttons) are fully rendered and interactive. |
| Test Data | URL for the Wildcat Credit Union Web App page: (URL not yet deployed) |
| Expected Result | The UI pages must take *longer than* 3 seconds to load completely, with all UI elements visible and interactive, as measured by browser developer tools. This outcome signifies a test failure, indicating that the requirement has not been met. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

# User Authentication (UA)

|  |  |
| --- | --- |
| Test Case ID | UA001 |
| Test Case Title | 3 Click Login and 8 Click Sign Up (Positive) |
| Description | The 3 Click Login and 8 Click Sign Up test case verifies that the user can successfully login within 3 clicks and successfully sign up within 8 clicks, ensuring user satisfaction and ease of access. |
| Related Requirement(s) | The user authentication page must allow users to successfully login within 3 clicks and successfully sign up within 8 clicks for user satisfaction and ease of access. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. A user account for login (for the login part of the test). |
| Test Steps | Login Scenario (3 Clicks)   1. Click on the "Email" input field. 2. Enter a valid email. 3. Click on the "Password" input field. 4. Enter a valid password. 5. Click on the "Login" button. 6. Count clicks from step 1 to successful login.   Signup Scenario (8 Clicks)   1. Click on the "Sign Up" or "Register" button. 2. Click on the "First Name" input field. 3. Enter a valid first name. 4. Click on the "Last Name" input field. 5. Enter a valid last name. 6. Click on the "Email Address" input field. 7. Enter a valid email address. 8. Click on the "Create Password" input field. 9. Enter a strong password. 10. Click on “Social Security Number” input field. 11. Enter a unique social security number. 12. Click on “Phone Number” input field. 13. Enter a valid phone number. 14. Click on the "Register" button. 15. Count clicks from step 1 to successful account creation/redirection to dashboard. |
| Test Data | For Login:   * Valid Email: testuser@example.com * Valid Password: Password123!   For Signup:   * First Name: John * Last Name: Doe * Email: johndoe@example.com * New Password: NewPassword123! * Social Security Number: 123456789 * Phone Number: 111 222 3333 |
| Expected Result | Login Scenario: The user is successfully logged in and redirected to their account dashboard within a max of 3 clicks.  Signup Scenario: The user successfully creates a new account and is redirected to the login page within a max of 8 clicks. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |
| Test Case ID | UA002 |
| Test Case Title | Login and Sign Up Exceeds Click Limits (Negative) |
| Description | The Login and Sign Up Exceeds Click Limits test case verifies that if the application requires more than 3 clicks for login or more than 8 clicks for sign up, it is considered a failure, as per the user satisfaction and ease of access requirement. |
| Related Requirement(s) | The user authentication page must allow users to successfully login within 3 clicks and successfully sign up within 8 clicks for user satisfaction and ease of access. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. A user account for login (for the login part of the test). |
| Test Steps | Login Scenario (Exceeds 3 Clicks)   1. Click on the "Email" input field. 2. Enter a valid email. 3. Click on the "Password" input field. 4. Enter a valid password. 5. Click on the "Login" button. 6. Count clicks from step 1 to successful login.   Signup Scenario (Exceeds 8 Clicks)   1. Click on the "Sign Up" or "Register" button. 2. Click on the "First Name" input field. 3. Enter a valid first name. 4. Click on the "Last Name" input field. 5. Enter a valid last name. 6. Click on the "Email Address" input field. 7. Enter a valid email address. 8. Click on the "Create Password" input field. 9. Enter a strong password. 10. Click on “Social Security Number” input field. 11. Enter a unique social security number. 12. Click on “Phone Number” input field. 13. Enter a valid phone number. 14. Click on the "Register" button. 15. Count clicks from step 1 to successful account creation/redirection to dashboard. |
| Test Data | For Login:   * Valid Email: testuser@example.com * Valid Password: Password123!   For Signup:   * First Name: John * Last Name: Doe * Email: johndoe@example.com * New Password: NewPassword123! * Social Security Number: 123456789 * Phone Number: 111 222 3333 |
| Expected Result | Login Scenario: The user is successfully logged in, but the total number of clicks required to achieve this exceeds 3. This result constitutes a test failure as it violates the 3-click requirement.  Signup Scenario: The user successfully creates a new account, but the total number of clicks required to achieve this exceeds 8. This result constitutes a test failure as it violates the 8-click requirement. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA003 |
| Test Case Title | User Password Encryption in Database (Positive) |
| Description | This test case verifies that user passwords are encrypted before being stored in the database after a user successfully signs up on the Wildcat Credit Union Web App's user authentication page. |
| Related Requirement(s) | All user passwords must be encrypted before being stored in the database. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Complete the sign-up process using unique test data. 3. Successfully create the new user account. 4. Examine the format of the stored password to confirm it is not in plain text and appears to be encrypted. |
| Test Data | * First Name: John * Last Name: Doe * Email: johndoe@example.com * New Password: NewPassword123! * Social Security Number: 123456789 * Phone Number: 111 222 3333 |
| Expected Result | Upon inspection of the database record for the newly signed-up user, the password field must contain an encrypted/hashed representation of the password, not the plain text password itself. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA004 |
| Test Case Title | User Password Encryption in Database (Negative – Plain Text) |
| Description | This test case attempts to verify that user passwords are *not* stored in plaintext in the database after a user successfully signs up on the Wildcat Credit Union Web App's user authentication page. A failure here indicates a critical security vulnerability. |
| Related Requirement(s) | All user passwords must be encrypted before being stored in the database. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Complete the sign-up process using unique test data. 3. Successfully create the new user account. 4. *Specifically look for indications that the password might be stored in a readable, unencrypted format.* This might involve direct observation of the database field. |
| Test Data | * First Name: John * Last Name: Doe * Email: johndoe@example.com * New Password: NewPassword123! * Social Security Number: 123456789 * Phone Number: 111 222 3333 |
| Expected Result | Upon inspection of the database record for the newly signed-up user, the password field *MUST* contain the plain text password. If the password is observed in an unreadable, encrypted format then this test case is a **FAIL.** |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA005 |
| Test Case Title | Password Meets All Requirements (Positive) |
| Description | This test case verifies that a user can successfully create an account when the provided password meets all specified requirements: at least 1 uppercase letter, 1 number, 1 special character, and a minimum length of 5 characters. |
| Related Requirement(s) | Passwords must meet the following requirements: at least 1 uppercase, 1 number, 1 special character, along with a minimum length of 5. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "Password" field, enter a password that meets *all* requirements. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Valid Password Examples:   * P@ssw0rd! * MyPass#1 * AbcdeFGH1 * Test!1 |
| Expected Result | The system successfully accepts the password and allows the user to complete the sign-up process. No error messages related to password requirements are displayed. The user is redirected to the expected post-signup/password-change page. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA006 |
| Test Case Title | Password Does Not Meet All Requirements (Negative – No Uppercase) |
| Description | This test case verifies that the system rejects a password if it does not contain at least one uppercase letter, even if other requirements are met. |
| Related Requirement(s) | Passwords must meet the following requirements: at least 1 uppercase, 1 number, 1 special character, along with a minimum length of 5. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "Password" field, enter a password that includes a number, a special character, meets the minimum length, but **lacks any uppercase letters**. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Invalid Password Example (no uppercase):  p@ssw0rd! |
| Expected Result | The system displays an error message indicating that the password requires at least one uppercase letter. The user is prevented from completing the sign-up or password change. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA007 |
| Test Case Title | Valid Email Address (Positive) |
| Description | This test case verifies that a user can successfully proceed with account creation when a valid email address, conforming to the local-part@domain format, is provided and validated. |
| Related Requirement(s) | Users must provide a valid email address in the format local-part@domain (ex: example@domain.com), verified using input validations before account creation can proceed. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "Email Address" input field, enter a valid email address that follows the local-part@domain.com format. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Valid Email Address Examples:   * [test.user@example.com](mailto:test.user@example.com) * test.user@example.com * john.doe123@sub.domain.co.uk * valid\_email+alias@domain.org |
| Expected Result | The system successfully accepts the email address. No error messages related to email format are displayed. The user is allowed to proceed with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA008 |
| Test Case Title | Valid Email Address (Negative – Missing @ Symbol) |
| Description | This test case verifies that the system rejects an email address that does not contain the @ symbol, as required by the format local-part@domain. |
| Related Requirement(s) | Users must provide a valid email address in the format local-part@domain (ex: example@domain.com), verified using input validations before account creation can proceed. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "Email Address" input field, enter a valid email address that follows the local-part@domain.com format. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Invalid Email address Example: testuserdomain.com |
| Expected Result | The system displays an error message indicating that the email address is invalid or must contain an @ symbol. The user is prevented from proceeding with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA009 |
| Test Case Title | Valid U.S. Phone Number Accepted (Positive) |
| Description | This test case verifies that a user can successfully proceed with account creation when a valid U.S. phone number, conforming to the (XXX) XXX-XXXX or XXX XXX-XXXX format, is provided and validated. |
| Related Requirement(s) | Users must provide a valid U.S. phone number in the format (XXX) XXX-XXXX or XXX XXX-XXXX (9 digits, with a dash between), verified using input validation before account creation can proceed. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "Phone Number" input field, enter a valid U.S. phone number using one of the specified formats. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Valid Phone Numbers:   * (123) 456-7890 * (987) 654-3210 * (555) 123-4567 |
| Expected Result | The system successfully accepts the phone number. No error messages related to phone number format are displayed. The user is allowed to proceed with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA010a |
| Test Case Title | Valid U.S. Phone Number Accepted (Negative – Incorrect Digit Count) |
| Description | This test case verifies that the system rejects a U.S. phone number if it has fewer or mote than 10 digits. |
| Related Requirement(s) | Users must provide a valid U.S. phone number in the format (XXX) XXX-XXXX or XXX XXX-XXXX (9 digits, with a dash between), verified using input validation before account creation can proceed. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "Phone Number" input field, enter a valid U.S. phone number using one of the specified formats. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Invalid Phone Numbers (too short/long):   * (123) 45-678 (too short) * (123) 456-78901(too long) |
| Expected Result | The system displays an error message indicating that the phone number is incomplete or not in the correct format/length. The user is prevented from proceeding with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA010b |
| Test Case Title | Valid U.S. Phone Number Accepted (Negative – Non-Numeric Characters) |
| Description | This test case verifies that the system rejects a phone number if it contains non-numeric characters other than the allowed parentheses, spaces, and dash. |
| Related Requirement(s) | Users must provide a valid U.S. phone number in the format (XXX) XXX-XXXX or XXX XXX-XXXX (9 digits, with a dash between), verified using input validation before account creation can proceed. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "Phone Number" input field, enter a valid U.S. phone number that contains non-numeric characters. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Invalid Phone Numbers (Non-Numeric Characters):   * (ABC) DEF-GHIJ * 123 456-TEST * !@# $%^-&\*() |
| Expected Result | The system displays an error message indicating that the phone number contains invalid characters or is not numeric where expected. The user is prevented from proceeding with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA011 |
| Test Case Title | Valid U.S. SSN (Positive) |
| Description | This test case verifies that a user can successfully proceed with account creation when a valid U.S. Social Security Number (SSN), conforming to the XXX-XX-XXXX format (9 digits with two dashes), is provided and validated. |
| Related Requirement(s) | The system must require a valid SSN in the format XXX-XX-XXXX (9 digits, with two dashes in between) during account creation. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "SSN" input field, enter a valid SSN that precisely follows the XXX-XX-XXXX format. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Valid SSNs:   * 123-45-6789 * 001-01-0001 * 987-65-4321 |
| Expected Result | The system successfully accepts the SSN. No error messages related to SSN format are displayed. The user is allowed to proceed with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA012a |
| Test Case Title | Valid U.S. SSN (Negative – Incorrect Digit Count) |
| Description | This test case verifies that the system rejects an SSN if it contains fewer or more than 9 digits in total. |
| Related Requirement(s) | The system must require a valid SSN in the format XXX-XX-XXXX (9 digits, with two dashes in between) during account creation. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "SSN" input field, enter an SSN with correct dash placement but fewer or more than 9 digits. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Invalid SSNs (too short/long):   * 123-45-678 (too short, 8 digits) * 123-45-67890 (too long, 10 digits) |
| Expected Result | The system displays an error message indicating that the SSN is too short/long. The user is prevented from proceeding with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA012b |
| Test Case Title | Valid U.S. SSN (Negative – Non-Numeric Characters) |
| Description | This test case verifies that the system rejects an SSN if it contains fewer or more than 9 digits in total. |
| Related Requirement(s) | This test case verifies that the system rejects an SSN if it contains any non-numeric characters other than the allowed dashes. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "SSN" input field, enter an SSN containing letters or other disallowed symbols. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. |
| Test Data | Invalid SSNs (too short/long):   * ABC-DE-FGHI * 123-45-678A * !@#-$-%^&\* |
| Expected Result | The system displays an error message indicating that the SSN contains invalid characters or is not numeric. The user is prevented from proceeding with account creation. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |
| Test Case ID | UA013 |
| Test Case Title | Unique Social Security Numbers (Positive) |
| Description | Verify that the system successfully allows the creation of a new user when the SSN provided is unique and not associated with any existing user. |
| Related Requirement(s) | SSNs must be 100% unique across all users. |
| Preconditions | The system is accessible and running. Existing user database contains at least one user with a known SSN. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "SSN" input field, enter a new, unique SSN (not in use by any existing user). 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. 6. Check against the database to ensure no other existing users have the same SSN (Must be admin). |
| Test Data | Unique SSN:  123-45-6789 (Assuming this is unique) |
| Expected Result | User is successfully created. System stores the new user record with the unique SSN. No validation errors or duplicate warnings appear. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA014 |
| Test Case Title | Unique Social Security Numbers (Negative) |
| Description | Verify that the system prevents the creation of a new user when the SSN entered already exists in the system for another user. |
| Related Requirement(s) | SSNs must be 100% unique across all users. |
| Preconditions | The system is accessible and running. At least one user already exists in the system with SSN **123-45-6789**. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. In the "SSN" input field, enter a SSN that already exists in the system. 4. Click the "Sign Up" or "Create Account" button. 5. Observe the system’s response. 6. Check against the database to ensure an existing user has the same SSN (Must be admin). |
| Test Data | Existing User’s SSN:  123-45-6789 (Assuming already being used) |
| Expected Result | System displays an error message indicating the SSN is already in use. User creation fails. No new record is created with the duplicate SSN. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA015 |
| Test Case Title | User Authentication Input Validation (Positive) |
| Description | Verify that the system accepts only valid inputs for all user authentication input fields. |
| Related Requirement(s) | Input validation must be implemented and tested to ensure only valid inputs are accepted. |
| Preconditions | The system is accessible and running. User is on the registration or user creation page. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. Click the "Sign Up" or "Create Account" button. 4. Observe the system’s response. |
| Test Data | For Login:   * Valid Email: testuser@example.com * Valid Password: Password123!   For Signup:   * First Name: John * Last Name: Doe * Email: johndoe@example.com * New Password: NewPassword123! * Social Security Number: 123456789 * Phone Number: 111 222 3333 |
| Expected Result | System accepts all user input fields and validates them successfully. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA016 |
| Test Case Title | User Authentication Input Validation (Negative) |
| Description | Verify that the system prevents invalid user input and displays error messages accordingly. |
| Related Requirement(s) | Input validation must be implemented and tested to ensure only valid inputs are accepted. |
| Preconditions | The system is accessible and running. User is on the registration or user creation page. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's sign-up page. 2. Fill in all required user details (e.g., First Name, Last Name, Email). 3. Click the "Sign Up" or "Create Account" button. 4. Observe the system’s response. |
| Test Data | For Login:   * Invalid Email: testuserexample.com * Invalid Password: Password123   For Signup:   * First Name: John * Last Name: Doe * Email: johndoe@example.com * New Password: NewPassword123! * Social Security Number: 123456789 * Phone Number: 111 222 3333 |
| Expected Result | System displays error messages accordingly. System prevents the user from loggin in or signing up. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA017 |
| Test Case Title | Account Lock After 5 Failed Login Attempts (Positive) |
| Description | Verify that the system locks a user’s account after 5 consecutive failed login attempts. |
| Related Requirement(s) | A maximum of 5 failed login attempts must be allowed before the account is locked for 10 minutes. |
| Preconditions | The system is accessible and running. User is on the registration or user creation page. User is logged out. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's login page. 2. Fill in all required user details (e.g., Email, Password). 3. Attempt to log in with an incorrect password for the valid user **five times**. 4. On the **sixth attempt**, try logging in again with either correct or incorrect credentials. 5. Observe the system’s response. |
| Test Data | For Login:   * Valid Email: testuser@example.com * Invalid Password: Password123 |
| Expected Result | After 5 incorrect attempts, the system locks the account. On the 6th attempt, system displays a message like: **“Your account has been locked due to multiple failed login attempts. Please try again after 10 minutes.”** User cannot log in, even with correct credentials. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA018 |
| Test Case Title | Account Lock After 5 Failed Login Attempts (Negative – Does Not Lock) |
| Description | Verify that the system is unable to lock a user’s account after 5 consecutive failed login attempts. |
| Related Requirement(s) | A maximum of 5 failed login attempts must be allowed before the account is locked for 10 minutes. |
| Preconditions | The system is accessible and running. User is on the registration or user creation page. User is logged out. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's login page. 2. Fill in all required user details (e.g., Email, Password). 3. Attempt to log in with an incorrect password for the valid user **five times**. 4. On the **sixth attempt**, try logging in again with either correct or incorrect credentials. 5. Observe the system’s response. |
| Test Data | For Login:   * Valid Email: testuser@example.com * Invalid Password: Password123 |
| Expected Result | After 5 incorrect attempts, the system is unable to lock the account, meaning that the user is free to continue logging in. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA019 |
| Test Case Title | Account Lock Error Message (Positive) |
| Description | Verify that the system displays an error message after 5 consecutive failed login attempts. |
| Related Requirement(s) | A maximum of 5 failed login attempts must be allowed before the account is locked for 10 minutes. |
| Preconditions | The system is accessible and running. User is on the registration or user creation page. User is logged out. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's login page. 2. Fill in all required user details (e.g., Email, Password). 3. Attempt to log in with an incorrect password for the valid user **five times**. 4. On the **sixth attempt**, try logging in again with either correct or incorrect credentials. 5. Observe the system’s response. |
| Test Data | For Login:   * Valid Email: testuser@example.com * Invalid Password: Password123 |
| Expected Result | After 5 incorrect attempts, the system displays a detailed error message explaining the account lock. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | UA020 |
| Test Case Title | Account Lock Error Message (Negative) |
| Description | Verify that the system does not display an error message after 5 consecutive failed login attempts. |
| Related Requirement(s) | A maximum of 5 failed login attempts must be allowed before the account is locked for 10 minutes. |
| Preconditions | The system is accessible and running. User is on the registration or user creation page. User is logged out. |
| Test Steps | 1. Navigate to the Wildcat Credit Union Web App's login page. 2. Fill in all required user details (e.g., Email, Password). 3. Attempt to log in with an incorrect password for the valid user **five times**. 4. On the **sixth attempt**, try logging in again with either correct or incorrect credentials. 5. Observe the system’s response. |
| Test Data | For Login:   * Valid Email: testuser@example.com * Invalid Password: Password123 |
| Expected Result | After 5 incorrect attempts, the system does not display any error messages about the account lock. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

# ATM Locator (ATM)

|  |  |
| --- | --- |
| Test Case ID | ATM001 |
| Test Case Title | ATM Locator Map Defaults to Ellensburg, WA on Page Load (Positive) |
| Description | Verify that upon navigating to the ATM Locator page, the map view automatically defaults to Ellensburg, WA within 2 seconds. |
| Related Requirement(s) | Upon navigating to the ATM locator page, the map automatically defaults the view to Ellensburg, WA within 2 seconds. |
| Preconditions | User is logged in and has access to the public ATM locator page. Internet connection is active. Browser device location is enabled. |
| Test Steps | 1. Navigate to the ATM Locator page. 2. Observe the map behavior immediately upon page load. 3. Note the location the map defaults to and the time it takes. |
| Test Data | * Navigation path: Home 🡪 ATM Locator * Default location: Ellensburg, WA |
| Expected Result | Within 2 seconds of loading the page, the map centers on Ellensburg, WA. Map view does **not** remain blank, stuck, or default to user’s current location. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | ATM002 |
| Test Case Title | ATM Locator Map Defaults to Ellensburg, WA on Page Load (Negative) |
| Description | Verify that the system fails gracefully or alerts the user if the ATM locator map does not default to Ellensburg, WA, or if it takes longer than 2 seconds to do so. |
| Related Requirement(s) | Upon navigating to the ATM locator page, the map automatically defaults the view to Ellensburg, WA within 2 seconds. |
| Preconditions | User is logged in and has access to the public ATM locator page. Internet connection is slow, unstable, or simulated to be slow for testing purposes. Browser device location is enabled. |
| Test Steps | 1. Navigate to the ATM Locator page. 2. Observe the map behavior immediately upon page load. 3. Note the location the map defaults to and the time it takes. 4. Capture any error messages, delays, or fallback behaviors. |
| Test Data | * Navigation path: Home 🡪 ATM Locator * Default location: Ellensburg, WA |
| Expected Result | Displays a fallback message or loading spinner. Optionally retries loading once bandwidth improves. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | ATM003 |
| Test Case Title | ATM Details Displayed Within 2 Seconds of Pin Click (Positive) |
| Description | Verify that clicking on an ATM pin on the map displays the full details (address, hours, and services) within 2 seconds. |
| Related Requirement(s) | Clicking on an ATM pin must display full ATM details (address, hours, and services) within 2 seconds. |
| Preconditions | ATM Locator map is loaded and displaying pins. Map is centered on Ellensburg, WA with visible ATM locations. |
| Test Steps | 1. Navigate to the ATM Locator page. 2. Wait for the map and pins to fully load. 3. Click on a visible ATM pin. 4. Start a timer as soon as the pin is clicked. 5. Observe if and when the ATM details pop-up appears. |
| Test Data | * ATM Pin: Any available pin on map |
| Expected Result | Within 2 seconds of clicking the pin, a pop-up or side panel shows full ATM details (address, hours, services). No missing fields. No delay or partial data loads. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | ATM004 |
| Test Case Title | ATM Details Displayed Within 2 Seconds of Pin Click (Negative) |
| Description | Verify that the system fails gracefully or alerts the user if ATM details are not displayed within 2 seconds after clicking a pin. |
| Related Requirement(s) | Clicking on an ATM pin must display full ATM details (address, hours, and services) within 2 seconds. |
| Preconditions | ATM Locator map is loaded and displaying pins. Map is centered on Ellensburg, WA with visible ATM locations. |
| Test Steps | 1. Navigate to the ATM Locator page. 2. Wait for the map and pins to fully load. 3. Click on a visible ATM pin. 4. Start a timer as soon as the pin is clicked. 5. Observe if and when the ATM details pop-up appears. |
| Test Data | * ATM Pin: Any available pin on map |
| Expected Result | System displays loading indicator or fallback message. ATM pin information pop up does not display in the time limit. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | ATM005 |
| Test Case Title | ATM Details Displayed Within 2 Seconds of Pin Click (Positive) |
| Description | Verify that the app pinpoints the user’s current location within a 100-foot (30.48 meters) radius of their actual GPS location, using the device’s location services. |
| Related Requirement(s) | The app must pinpoint the user’s current location within a 100-foot radius of their actual GPS location, as determined by the device’s location services. |
| Preconditions | User has enabled location services on the device. Device has GPS capability and is in an open, unobstructed environment. App has permission to access location data. |
| Test Steps | 1. Launch the app on a GPS-enabled device. 2. Ensure GPS accuracy is high 3. Navigate to the ATM Locator feature that shows the user’s location 4. Observe the location pin placed by the app. 5. Compare the app’s reported location to the actual location using a GPS measuring tool or a secondary GPS app. |
| Test Data | * Real GPS Coordinates: Based on your current location * App-Displayed Location: Measured via UI |
| Expected Result | The app’s location pin is within 100 feet (~30.48 meters) of the actual GPS location. Location updates quickly and correctly on map. User is visually centered or clearly marked. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | ATM006 |
| Test Case Title | ATM Details Displayed Within 2 Seconds of Pin Click (Negative) |
| Description | Verify the system's response if the app displays a location more than 100 feet away from the user's actual GPS location. |
| Related Requirement(s) | The app must pinpoint the user’s current location within a 100-foot radius of their actual GPS location, as determined by the device’s location services. |
| Preconditions | User has enabled location services on the device. Device has GPS capability and is in an open, unobstructed environment. App has permission to access location data. |
| Test Steps | 1. Launch the app in an area with known GPS drift 2. Note the actual location of the user using a reliable GPS tool. 3. Observe the location displayed in the app. 4. Measure the distance between actual and reported location. |
| Test Data | * Actual vs. Reported GPS Coordinates * Distance: Calculated manually or with tool |
| Expected Result | The app provides a warning or notice. Map clearly shows inaccurate location. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

# Display Account Information (DAI)

|  |  |
| --- | --- |
| Test Case ID | DAI001 |
| Test Case Title | Instant Access to Funds Within 3 Seconds (Positive) |
| Description | Verify that the system allows users to access available funds within 3 seconds under normal network conditions. |
| Related Requirement(s) | The system must allow users to instantly access available funds, ensuring completion times are within 3 seconds under normal network conditions. |
| Preconditions | User has a valid account with available funds. Network is stable (e.g., Wi-Fi or 4G LTE with latency <100ms). User is logged into the app or web portal. |
| Test Steps | 1. Navigate to the “Dashboard” or “Fund Management” pages. 2. Track the time it takes for all information about user account fund takes. |
| Test Data | Navigation: Login/Signup 🡪 Dashboard or Login/Signup 🡪 Fund Management |
| Expected Result | Funds are presented to the user within 3 seconds of navigating to the current page. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DAI002 |
| Test Case Title | Instant Access to Funds Within 3 Seconds (Negative – More Than 3 Seconds) |
| Description | Verify system behavior and user feedback when fund access takes longer than 3 seconds. |
| Related Requirement(s) | The system must allow users to instantly access available funds, ensuring completion times are within 3 seconds under normal network conditions. |
| Preconditions | User has a valid account with available funds. Network is unstable and delayed. User is logged into the app or web portal. |
| Test Steps | 1. Navigate to the “Dashboard” or “Fund Management” pages. 2. Track the time it takes for all information about user account fund takes. |
| Test Data | Navigation: Login/Signup 🡪 Dashboard or Login/Signup 🡪 Fund Management |
| Expected Result | Funds are not presented to the user within 3 seconds of navigating to the current page. System provides a “proccessing funds” loading feature while keeping the users waiting. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DAI003 |
| Test Case Title | Transaction History Notifications Display Accurate Information Within 5 Seconds (Positive) |
| Description | Verify that all notifications showing transaction history display fully accurate and up-to-date information within 5 seconds after any transaction completes. |
| Related Requirement(s) | All notifications detailing transaction history must display 100% accurate, up-to-date information within 5 seconds after any transaction is completed. |
| Preconditions | User has a valid account with active notifications enabled. Network connection is stable and normal (no artificial throttling). User is logged into the app or portal. |
| Test Steps | 1. Initiate a financial transaction (e.g., transfer, deposit, withdrawal). 2. Complete the transaction successfully. 3. Start a timer immediately after transaction completion confirmation. 4. Observe the transaction notification that appears. 5. Verify the notification details match the actual transaction data. |
| Test Data | Transaction Type: Deposit  Amount: $200  Expected balance update: Reflects the deposit immediately |
| Expected Result | Notification is received and displayed within 5 seconds. All transaction details in the notification are 100% accurate and current. No discrepancies between notification and account history. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DAI004 |
| Test Case Title | Transaction History Notifications Display Accurate Information Within 5 Seconds (Negative) |
| Description | Verify system behavior when transaction notifications are delayed beyond 5 seconds or show inaccurate data. |
| Related Requirement(s) | All notifications detailing transaction history must display 100% accurate, up-to-date information within 5 seconds after any transaction is completed. |
| Preconditions | User has a valid account with active notifications enabled. Network connection is unstable and delayed. User is logged into the app or portal. |
| Test Steps | 1. Initiate a financial transaction (e.g., transfer, deposit, withdrawal). 2. Complete the transaction successfully. 3. Start a timer immediately after transaction completion confirmation. 4. Observe the transaction notification that appears. 5. Verify the notification details match the actual transaction data. |
| Test Data | Transaction Type: Deposit  Amount: $200  Expected balance update: Reflects the deposit immediately |
| Expected Result | Notification is delayed beyond 5 seconds, OR Notification details contain discrepancies (incorrect amount, timestamp, or balance). User receives a retry or error message if applicable. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

# Transfer Funds (TF)

|  |  |
| --- | --- |
| Test Case ID | TF001 |
| Test Case Title | Transfer Feature Loads Under 3 Seconds (Positive) |
| Description | Verifies that the fund transfer interface loads in under 3 seconds under standard network conditions. |
| Related Requirement(s) | The transfer feature must load in under 3 seconds under standard network conditions. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the 'Transfer Funds' section. 2. Complete a transfer 3. Start a timer once the submit button is pressed. 4. Stop the timer once the page and all elements have fully loaded. |
| Test Data | N/A |
| Expected Result | The page loads completely in 3 seconds |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |
| Test Case ID | TF002 |
| Test Case Title | Transfer Feature Loads Slower Than 3 Seconds (Negative) |
| Description | Confirms failure if the transfer page takes longer than 3 seconds to load. |
| Related Requirement(s) | The transfer feature must load in under 3 seconds under standard network conditions. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Navigate to the 'Transfer Funds' section. 2. Complete a transfer 3. Start a timer once the submit button is pressed. 4. Stop the timer once the page and all elements have fully loaded. |
| Test Data | N/A |
| Expected Result | The transfer is completed and the page is loaded in ≤ 3 seconds. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF003 |
| Test Case Title | Transfer Confirmation Notification Within 10 Seconds (Positive) |
| Description | Ensures the user receives a transaction confirmation notification within 10 seconds of initiating a transfer. |
| Related Requirement(s) | Upon successful fund transaction, the user should receive a confirmation notification within 10 seconds. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Fill in recipient details and amount. 2. Click 'Transfer'. 3. Start a timer when the transfer request is submitted. 4. Observe the time taken for the notification to appear. |
| Test Data | $50.00 from Account A to Account B |
| Expected Result | Notification confirming success appears in ≤ 10 seconds. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF004 |
| Test Case Title | Delayed Confirmation Notification (Negative) |
| Description | Checks that the system fails the test if the notification takes longer than 10 seconds to appear. |
| Related Requirement(s) | All user passwords must be encrypted before being stored in the database. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Fill in recipient details and amount. 2. Click 'Transfer'. 3. Start a timer when the transfer request is submitted. 4. Observe the time taken for the notification to appear. |
| Test Data | $50.00 from Account A to Account B |
| Expected Result | Notification appears after more than 10 seconds. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF005 |
| Test Case Title | Validate Transfer Amount Input Range (Positive) |
| Description | Verifies that transaction amount input field only accepts values between $0.00 and $500.00 inclusive. |
| Related Requirement(s) | Transaction amount input fields must only accept numeric values between $0.00 and $500.00 inclusive. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Enter valid values: '0.00', '500.00', '123.45'. 2. Attempt to submit each value. |
| Test Data | Valid amounts: 0.00, 123.45, 500.00 |
| Expected Result | System accepts all valid values without error. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF006 |
| Test Case Title | Reject Invalid Transfer Amounts (Negative) |
| Description | Verifies that the system rejects invalid input such as non-numeric values or values outside the $0.00–$500.00 range. |
| Related Requirement(s) | Transaction amount input fields must only accept numeric values between $0.00 and $500.00 inclusive. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Enter invalid values: '-10', '600', 'abc', '$1000', blank. 2. Attempt to submit each value. |
| Test Data | Invalid inputs: -10, abc, 600, $1000, blank |
| Expected Result | System displays validation errors for all invalid inputs. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF007 |
| Test Case Title | Prevent Transfer to Own Account (Positive) |
| Description | Ensures that users cannot transfer funds to the same account they are sending from. |
| Related Requirement(s) | Users must not be allowed to transfer funds to their own account. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the login/signup page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Select the same account as both source and destination. 2. Attempt to submit the transfer. |
| Test Data | From Account: 12345678 → To Account: 12345678 |
| Expected Result | System blocks the transfer with an error message like 'Cannot transfer to the same account. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF008 |
| Test Case Title | Allow Transfer Between Different Accounts (Negative Variant of Positive Logic) |
| Description | Ensures that the system does not block valid transfers between two different user-owned accounts. |
| Related Requirement(s) | Users must not be allowed to transfer funds to their own account |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Select different source and destination accounts. 2. Attempt to submit the transfer. |
| Test Data | From Account: 12345678 → To Account: 87654321 |
| Expected Result | System accepts the transfer and proceeds as expected. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF009 |
| Test Case Title | Prevent Receiving Funds from Own Account (Positive) |
| Description | Validates that users cannot initiate a transaction where they are also the recipient. |
| Related Requirement(s) | Users must not be allowed to receive funds from their own account. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Select same account as both sender and receiver. 2. Attempt to submit the transfer. |
| Test Data | Account: 55555555 → To Account: 55555555 |
| Expected Result | System rejects the transaction with a relevant error message. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | TF010 |
| Test Case Title | Allow Receiving Funds From a Different Account (Negative Variant of Positive Logic) |
| Description | Ensures users can successfully receive funds from a different account |
| Related Requirement(s) | Users must not be allowed to receive funds from their own account. |
| Preconditions | The Wildcat Credit Union Web App is accessible and loaded in a web browser. The user is on the transfer page of the Wildcat Credit Union Web App. |
| Test Steps | 1. Select source and destination as two different accounts. 2. Attempt to submit the transfer. |
| Test Data | From Account: 55555555 → To Account: 44444444 |
| Expected Result | System processes the transfer successfully. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

# Withdraw Funds (WD)

|  |  |
| --- | --- |
| Test Case ID | WD001 |
| Test Case Title | Withdraw Load Time  (Positive) |
| Description | Verify withdraw page loads within 3 seconds |
| Related Requirement(s) | Requirement 15 |
| Preconditions | User is logged in, On the ‘Withdraw Funds’ page. Standard network conditions. |
| Test Steps | 1. Navigate to the ‘Withdraw’ page 2. Observe the page load time. |
| Test Data | N/A |
| Expected Result | The “Withdraw Funds’ page loads completely within 3 seconds. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD002 |
| Test Case Title | Withdrawal Load Time Exceeds Limit  (Negative) |
| Description | Verify that the system does not exceed the 3 second load time under normal conditions |
| Related Requirement(s) | Requirement 15 |
| Preconditions | User is logged in, User is on ‘Withdraw’ page. Standard network conditions. |
| Test Steps | 1. Navigate to the ‘Withdraw’ page 2. Observe the page load time to ensure it is within 3 seconds |
| Test Data | N/A |
| Expected Result | The ‘WIthdraw’ page takes longer than 3 seconds to load under normal conditions. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD003 |
| Test Case Title | Real-time Balance Update After withdrawal (Positive) |
| Description | Verify the balance updates immediately after withdrawal. |
| Related Requirement(s) | Requirement 17 |
| Preconditions | User is logged in, Successful Wwithdrawal performed. |
| Test Steps | 1. Perform a successful withdrawal 2. Check the account balance display immediately after. |
| Test Data | Amount: $50 |
| Expected Result | Account balance is updated immediately reflecting the withdrawal. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD004 |
| Test Case Title | Real-time Balance Update After withdrawal (Negative) |
| Description | Verify that the balance is not updated in real-time after a withdrawal |
| Related Requirement(s) | Requirement 17 |
| Preconditions | User is logged in, Successful withdrawal performed. |
| Test Steps | 1. Perform a successful withdrawal 2. Check the account balance display immediately after. |
| Test Data | Amount $50 |
| Expected Result | Account balance does not update immediately after the withdrawal. User might need to refresh to see the updated balance. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD005 |
| Test Case Title | Numeric Input Only  (Positive) |
| Description | Verify only numeric input is accepted for withdrawal amount. |
| Related Requirement(s) | Requirement 20 |
| Preconditions | User is logged in, On the ‘Withdraw Funds’ page. |
| Test Steps | 1. Navigate to the ‘Withdraw’ page 2. Attempt to enter numeric values in the amount field. |
| Test Data | Amount:123 |
| Expected Result | Numeric input is accepted in the withdrawal amount field. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD006 |
| Test Case Title | Attempt Non-Numeric Withdrawal Amount  (Negative) |
| Description | Attempt to enter non numeric characters in the withdrawal amount field |
| Related Requirement(s) | Requirement 20 |
| Preconditions | User is logged in, On the ‘Withdraw Funds’ page. |
| Test Steps | 1. Navigate to the ‘Withdraw’ page 2. Attempt to enter non- numeric values in the amount field. |
| Test Data | Amount: abc |
| Expected Result | Non numeric input is not accepted, an appropriate error message will be displayed. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD007 |
| Test Case Title | Successful Withdrawl (Under Limit)  (Positive) |
| Description | Withdraw an amount less than $500 within the daily limit |
| Related Requirement(s) | Requirements 22, 24 |
| Preconditions | -User is logged in.  -Account has sufficient balance |
| Test Steps | 1. Navigate to the 'Withdraw’' page. 2. Enter a valid amount less than $500 in the amount field. 3. Click the ‘Confirm Withdrawl’ button |
| Test Data | Amount: 100, 200 |
| Expected Result | Withdraw is successful, account balance is updated correctly |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |
| Test Case ID | WD008 |
| Test Case Title | Attempt Withdrawal Over $500 Limit  (Negative) |
| Description | Attempt to withdraw an amount exceeding the $500 limit. |
| Related Requirement(s) | Requirements 22, 24 |
| Preconditions | * User is logged in |
| Test Steps | 1. Navigate to the 'Withdraw” page. 2. Enter an amount greater than $500 3. Click ‘Confirm WIthdrawal’ |
| Test Data | Amounts: $501 |
| Expected Result | Withdrawal is unsuccessful due to exceeding the limit, an appropriate error message will be displayed. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD009 |
| Test Case Title | Successfully make three withdrawals a day  (Positive) |
| Description | Verify that three successful withdrawals can be made a day. |
| Related Requirement(s) | Requirement 24 |
| Preconditions | User is logged in, On the ‘Withdraw Funds’ page. Has not yet exceeded the number of daily withdrawals |
| Test Steps | 1. Navigate to the ‘Withdraw’ page 2. Make three successful withdrawals |
| Test Data | Amount: $100, $50, $250 |
| Expected Result | Three successful withdrawals can be made daily. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | WD010 |
| Test Case Title | Exceed Daily WIthdrawal Limit (Number of Transactions) |
| Description | Attempt a fourth withdrawal in a single day after 3 successful withdrawals. |
| Related Requirement(s) | Requirement 24 |
| Preconditions | User has already performed three successful withdrawals today.  User is logged in. |
| Test Steps | 1. Navigate to the ‘Withdraw’ Page 2. Enter a valid withdrawal amount. 3. Click ‘ Confirm WIthdrawal’ button |
| Test Data | Any valid amount. |
| Expected Result | Withdrawal fails, an appropriate error message is displayed. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

# Deposit Funds (DF)

|  |  |
| --- | --- |
| Test Case ID | DF001 |
| Test Case Title | Deposit Load Time  (Positive) |
| Description | Verify deposit page loads within 3 seconds under standard network conditions. |
| Related Requirement(s) | Requirement 14 |
| Preconditions | User is logged in, Standard network conditions |
| Test Steps | 1. Navigate to the ‘Deposit’ page 2. Observe the page load time. |
| Test Data | N/A |
| Expected Result | The “Deposit’ page loads completely within 3 seconds. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DF002 |
| Test Case Title | Deposit Load Time Exceeds Limit  (Negative) |
| Description | Verify that the system does not exceed the 3 second load time under normal conditions. |
| Related Requirement(s) | Requirement 14 |
| Preconditions | User is logged in, Standard network conditions. |
| Test Steps | 1. Navigate to the ‘Deposit’ page 2. Observe the page load time. |
| Test Data | N/A |
| Expected Result | The “Deposit” page takes longer than 3 seconds to load under normal conditions. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DF005 |
| Test Case Title | Numeric Input Only - Deposit Amount  (Positive) |
| Description | Verify only numeric input is accepted for the deposit amount. |
| Related Requirement(s) | Requirement 20 |
| Preconditions | User is logged in, On the ‘Deposits’ page. |
| Test Steps | 1. Navigate to the ‘Deposit’ page 2. Attempt to enter numeric values in the amount field.. |
| Test Data | Amount: 50 |
| Expected Result | Numeric input is accepted in the deposit amount field. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DF006 |
| Test Case Title | Non-Numeric Input Amount Rejection  (Negative) |
| Description | Attempt to enter non numeric characters in the amount field for deposits. |
| Related Requirement(s) | Requirement 20 |
| Preconditions | User is logged in, On the ‘Deposits’ page |
| Test Steps | 1. Navigate to the ‘Deposit’ page 2. Attempt to enter non -numeric values in the amount field |
| Test Data | abc |
| Expected Result | Non-numeric character input entries are rejected, the appropriate error message is displayed. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DF007 |
| Test Case Title | Successful Deposit (Within Transaction Count Limit)  (Positive) |
| Description | Perform a successful deposit (within the daily limit of 3 transactions) |
| Related Requirement(s) | Requirement 21 |
| Preconditions | User is logged in, On the ‘Deposits’ page. |
| Test Steps | 1. Navigate to the ‘Deposits’ page 2. Enter a valid deposit amount. 3. Click the ‘Deposit’ button |
| Test Data | Amount: $100 |
| Expected Result | Deposit is successful. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DF008 |
| Test Case Title | Exceed Daily Deposit Limit (Number of Transactions)  (Negative) |
| Description | Attempts a fourth deposit in a single day after three successful deposits. |
| Related Requirement(s) | Requirement 21 |
| Preconditions | User has already performed three successful deposits today, User is logged in. |
| Test Steps | 1. Navigate to the ‘Deposit’ page 2. Enter any valid amount 3. Click the ‘Deposit’ button |
| Test Data | Any valid amount. |
| Expected Result | Deposit fails, an appropriate error message is displayed. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DF009 |
| Test Case Title | Valid Deposit Amount  (Positive) |
| Description | Deposit a valid amount. Within the daily limits of deposit amount totals. |
| Related Requirement(s) | Requirement 23 |
| Preconditions | User is logged in. User has not exceeded the $500 deposit limit. |
| Test Steps | 1. Navigate to the ‘Deposit’ page 2. Enter any valid amount 3. Click the ‘Deposit’ button |
| Test Data | Amount: $50, $36 varies, under $500 in total daily deposits. |
| Expected Result | Deposit is successful. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |

|  |  |
| --- | --- |
| Test Case ID | DF010 |
| Test Case Title | Invalid Deposit Amount  (Negative) |
| Description | Attempt to deposit an invalid amount (e.g., more than $500 a day) |
| Related Requirement(s) | Requirement 23 |
| Preconditions | User has already made deposits that total to, or are close to totaling to $500 that day. |
| Test Steps | 1. Navigate to the ‘Deposit’ page 2. Enter any valid amount, an amount greater than $500 when added with all deposits made that day. 3. Click the ‘Deposit’ button |
| Test Data | Any valid amount. An amount that would exceed the daily deposit limit amount of $500. |
| Expected Result | Deposit fails, an appropriate error message is displayed. |
| Actual Result | TBD |
| Status (Pass/Fail) | TBD |
| Remarks/Comments | TBD |