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| Checking/savings accounts  Test Plan Revision 6 | Group 3  16 April 2017  Lennon Brixey  Ken Machen  Conor Maginnis  Mathew Nielsen  UMUC CMSC 495 7981 Current Trends and Projects in Computer Science (2172) Professor Hung Dao |

**Revision History**

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| **REVISION #** | **DATE** | **DESCRIPTION** | **NAME** |
| **1** | **10 APR 2017** | **Initial draft** | **Ken** |
| **2** | **11 APR 2017** | **Return to menu instead of logging out**  **Error checking for transfer** | **Matthew** |
| **3** | **13 APR 2017** | **Invalid entries checks** | **Lennon** |
| **4** | **14 APR 2017** | **Sanitizing data** | **Conor** |
| **5** | **16 APR 2017** | **Intro /Goals** | **Ken** |
| **6** | **28 APR 2017** | **First Test** | **Ken** |
| **7** | **28 APR 2017** | **Second Test** | **Ken/Lennon** |

**Introduction:**

This test plan is derived from the project requirements and the project design. Each test case checks different requirements for the project and at times overlap each other because some steps such as logging in are required to test the other requirements. Group 3’s project is to create a checking and savings account program that has a user interface menu and is capable of the following requirements. We list the requirements from the Project plan here for convenience.

**Requirements:**

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| --- | --- |
| **Req #** | **Requirement Text** |
| **1** | This application shall have a login page |
| **2** | This application shall allow unique log-in usernames |
| **3** | This application shall not allow more than one user to have the same username |
| **4** | This application shall not save usernames in plaintext |
| **5** | This application shall force users to accept the user agreement before logging in |
| **6** | This application shall allow the user to log out and end their session |
| **7** | This application shall allow users to transfer money between accounts |
| **8** | This application shall allow users to see their transaction history |
| **9** | This application shall allow users to see their potential interest earnings |
| **10** | This application shall update interest based on a 30-day average of their account balance in accordance with their account type |
| **11** | This application shall have a menu allowing the user to navigate |
| **12** | This application shall use a database to hold usernames and passwords |
| **13** | This application shall use a database to hold the user accounts |
| **14** | This application shall allow users to have both savings and checking accounts |
| **15** | This application shall allow users to view their balance |

**Goals/Plan of Attack:**

The goal of the test plan is to test the various operations required and to ensure that the program functions accordingly. It will test the connection between the user, the session manager and the database. It will check for correct login information, the type of information, the available balance vs transfer amount, and the interest earnings of the accounts. These tests will be performed on a stand-alone computer containing the database. The tests will be conducted, results recorded and any failed tests will be repeated until all the requirements are met.

**TEST PLAN**

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| --- | --- | --- | --- | --- | --- |
| **TEST CASE #** | **REQ NUMBER** | **TEST DESCRIPTION** | **EXPECTED RESULT** | **ACTUAL RESULT** | **PASS /FAIL** |
| 1 | 1, 2, 3, 4, 5, 6, 11, 12, 13 | User starts application  -accepts user agreement  -enters INCORRECT username and password | Login screen appears  -Error message appears prompting to reenter username and password | Performs as expected | Pass |
| 2 | 1, 2, 3, 4, 5, 6, 11, 12, 13 | User starts application,  -accepts user agreement,  -enters CORRECT username and password,  -views menu  -logs out | Log in screen appears  -the account menu is accessed  -a successfully logged out message is displayed | Performs as expected | Pass |
| 3 | 14, 15 | While logged in user clicks “Balances” to check checking and savings account balances and logs out  -views balances | the balance of checking and savings is displayed | Performs as expected | Pass |
| 4 | 14, 7 | While logged in user clicks “Transfer”  -selects to and from accounts  -enters the amount to transfer  -confirms transfer is correct  -views new balance | the user is prompted to select to/from accounts and enter the transfer amount  -message displayed asking to confirm the transfer  -the new balances are displayed | Performs as expected | Pass |
| 5 | 14, 7 | While logged in user clicks “Transfer”  -selects to and from accounts  -enters the amount to transfer  -does NOT confirm transfer is correct | Same as #4 except  -the transfer is aborted and message displays “Transfer Cancelled!” | Performs as expected | Pass |
| 6 | 14, 7 | While logged in user clicks “Transfer”  -Selects to and from accounts  -enters the amount that is more than available  -enters correct amount,  confirms transfer is correct  -views new balance | Same as #4 except  -Error message displayed asking to enter an amount less than balance | Displays error message “Please enter a positive number”  -Error Corrected | (Fail)  Pass |
| 7 | 14, 7 | While logged in user clicks “Transfer”  -selects to and from accounts  -enters a string for numbers in the amount to transfer text field  -enters the amount in the correct format  -views new balance | Same as #4 except  -Error message requesting corrected format of amount is displayed | Performs as expected | Pass |
| 7 | 8 | While logged in user clicks “Checking Account History” and logs out  -views checking history | checking account history is displayed | Performs as expected | Pass |
| 8 | 8 | While logged in user clicks “Savings Account History”  -views savings history | Savings account history is displayed | Performs as expected | Pass |
| 9 | 9, 10 | While logged in user clicks “Interest Earnings.”  -enters the time frame  -views interest earnings | displays field to enter dates  -displays interest earnings | Displays octal representation of class  -Discrepancy corrected | (Fail)  Pass |

Note:

1. The ACTUAL RESULT and PASS/FAIL columns are to be filled out when testing is performed.
2. Any failed test will be repeated after project modification until the requirement is met.
3. Error checking was added for login and transfer.
4. All data will be checked for proper type and quantity to sanitize the data before being passed.
5. Message prompts were added for transfer, interest earnings.