| Functionality Tested: Open Account | | | |
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| Test Case # | Requirement/Purpose | Test description and input data | Expected Output |
| 1 | Testing user info input boxes to ensure they function correctly<br>• Case 1: Missing User Info<br>• Case 2: Correct name, invalid DOB<br>• Case 3: Correct Name (Lower case), Correct DOB<br>• Case 4: Correct Name (Name case), Correct DOB | • Case 1: No Data Input in the user info input boxes<br>• Case 2:<br>First name: "Alpha"<br>Last name: "Beta"<br>DOB: 13/20/2001 (invalid month)<br>• Case 3:<br>First name: "alpha"<br>Last name: "beta"<br>DOB: 10/20/2001<br>• Case 4:<br>First name: "Alpha"<br>Last name: "Beta"<br>DOB: 10/20/2001 | Case 1: "Data missing!"<br>Case 2: "Date of birth is invalid!"<br>Case 3: "Success"<br>Case 4: "Success" |
| 2 | Opening checking account should have valid deposit amount:<br>• Case 1: No input amount<br>• Case 2: Negative input amount<br>• Case 3: Positive amount | • Case 1: No input amount<br>• Case 2: -1000<br>• Case 3: 1000 | • Case 1: "Enter a valid amount!"<br>• Case 2: "Enter an amount greater than 0!"<br>• Case 3: "Account Opened" |
| 3 | System shouldn't allow the same user to open the same type of account | Consider account already in database:<br>First name: "Alpha"<br>Last name: "Beta"<br>DOB: 10/20/2001<br>Acc. Type: Savings<br><br>Trying to input the same details as above while trying to open an account. | Alpha Beta 10/20/2001 already has a Savings account! |

| Functionality Tested: Close Account | | | |
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| Test Case # | Requirement/Purpose | Test description and input data | Expected Output |
| 1 | Testing user info and account input boxes to ensure they close the correct account<br>• Case 1: Missing User Info<br>• Case 2: Invalid User Info (wrong DOB, correct name) and valid account type<br>• Case 3: Invalid User Info (wrong name, correct DOB) and invalid account type<br>• Case 4: Valid user info, but invalid account type<br>• Case 5: Valid User Info (wrong case) and valid account type<br>• Case 6: Valid User Info and valid account type | Consider account in database:<br>    First name: "Alpha"<br>    Last name: "Beta"<br>    DOB: 10/20/2001<br>    Acc. Type: Savings<br><br>• Case 1: No Data Input in the user info input boxes<br>• Case 2:<br>    First name: "Alpha"<br>    Last name: "Beta"<br>    DOB: 01/20/2001<br>    Acc. Type: Savings<br>• Case 3:<br>    First name: "apple"<br>    Last name: "beta"<br>    DOB: 10/20/2001<br>    Acc. Type: Checking<br>• Case 4:<br>    First name: "Alpha"<br>    Last name: "Beta"<br>    DOB: 10/20/2001<br>    Acc. Type: Money Market<br>• Case 5:<br>    First name: "alpha"<br>    Last name: "beta"<br>    DOB: 10/20/2001<br>    Acc. Type: Savings<br>• Case 6:<br>    First name: "Alpha"<br>    Last name: "Beta"<br>    DOB: 10/20/2001<br>    Acc. Type: Savings | Case 1: "Data missing!"<br>Case 2: "Alpha Beta 01/20/2001 Savings is not in the database!"<br>Case 3: "apple beta 10/20/2001 Checking is not in the database!"<br>Case 4: "Alpha Beta 10/20/2001 Money Market Savings is not in the database!"<br>Case 5: "alpha beta 10/20/2001 Savings is not in the database!"<br>Case 6: "Account closed!" |

| Functionality Tested: Deposit/Withdraw | | | |
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| Test Case # | Requirement/Purpose | Test description and input data | Expected Output |
| 1 | The system should check for the account before trying to deposit/withdraw <br>• Case 1: Trying to deposit into a non-existent account | Consider account already in database: <br>    First name: "Alpha" <br>    Last name: "Beta" <br>    DOB: 10/20/2001 <br>    Acc. Type: Savings <br> Input: <br>    First name: "John" <br>    Last name: "Cena" <br>    DOB: 10/20/2001 <br>    Acc. Type: Savings | "John Cena 10/20/2001 Savings is not in the database." |
| 2 | The system should only deposit/withdraw a positive number, nothing else <br>• Case 1: Negative deposit amount in the correct account <br>• Case 2: Non-numeric amount in the correct account <br>• Case 3: Positive amount in the correct account | • Case 1: Deposit of -1000 <br>• Case 2: Deposit of "ABC" <br>• Case 3: Deposit of 1000 | • Case 1: "Enter an amount greater than 0!" <br>• Case 2: "Enter only numbers!" <br>• Case 3: "Deposit - balance updated." -----OR----- "Withdraw - balance updated." |
| 3 | FOR WITHDRAW ONLY <br><br> The system needs to check if the amount being withdraw is not more than the balance available | Balance available: $1000 <br> Input: <br>• Withdraw $1200 | "Withdrawal - insufficient funds." |

| Functionality Tested: Printing | | | |
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| Test Case # | Requirement/Purpose | Test description and input data | Expected Output |
| 1 | The system should check the contents of the database before printing. | Press any display button | "Account Database is empty!" |
| 2 | See if "display accounts" button prints the accounts in the order they were inserted. | Consider that the following accounts were inserted one after other:<br><br>First name: "Alpha"<br>Last name: "Beta"<br>DOB: 10/20/2001<br>Acc. Type: Savings - Loyal<br>Deposit: $1000<br><br>First name: "John"<br>Last name: "Cena"<br>DOB: 01/02/1992<br>Acc. Type: Checking<br>Deposit: $1000<br><br>First name: "Gamma"<br>Last name: "Theta"<br>DOB: 02/02/2000<br>Acc. Type: College Checking<br>Deposit: $1000<br>Campus: NB | Savings::Alpha Beta 10/20/2001::Balance $1,000.00::loyal<br><br>Checking::John Cena 01/02/1992::Balance $2,500.00<br><br>College Checking::Gamma Theta 02/02/2000::Balance $1,000.00::New Brunswick |
| 3 | Testing the "display by type" button to ensure that the contents of the account database are sorted by account type | Consider the above accounts | Checking::John Cena 01/02/1992::Balance $2,500.00<br><br>College Checking::Gamma Theta 02/02/2000::Balance $1,000.00::New Brunswick<br><br>Savings::Alpha Beta 10/20/2001::Balance $1,000.00::loyal |

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| 4 | Testing the "display with fees/interest" button to ensure that the accounts displayed contain the fees/interest | Consider the accounts in Case #2 | Checking::John Cena 01/02/1992::Balance $2,500.00::fee $0.00::monthly interest $0.21<br><br>College Checking::Gamma Theta 02/02/2000::Balance $1,000.00::New Brunswick::fee $0.00::monthly interest $0.21<br><br>Savings::Alpha Beta 10/20/2001::Balance $1,000.00::loyal::fee $0.00::monthly interest $0.37 |
| 5 | Testing the "Update balances and print" button to ensure that the accounts are printed with the fees/interest added to their balance<br><br>The button should also be disabled after the fees/interest are added. | Consider the accounts in Case #2 | Checking::John Cena 01/02/1992::Balance $2,500.21<br><br>College Checking::Gamma Theta 02/02/2000::Balance $1,000.21::New Brunswick<br><br>Savings::Alpha Beta 10/20/2001::Balance $1,000.38::loyal |