

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	All profile holders of College Checking accounts must be younger than 24 years of age	<p>Attempt to open a College Checking account with a date of birth that is 24 years ago or more.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/1956", Account Type: College Checking, Initial Balance: 1000</p>	"DOB invalid: 11/11/1956 over 24."
2	Trying to print when the account database is empty	<p>If there are no open accounts in the database, the system returns the specified string. Otherwise it executes normally and prints the list of accounts in the account database</p> <p>Input Data: None, the account database is empty and does not have any open accounts. The user pushes one of the print buttons.</p>	"Account Database is empty!"
3	To open an account, all inputs must be filled for the account to be stored in the account database	<p>Test input that does not fill in all required fields.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: unchecked, Initial Balance: 1000</p>	"Missing data for opening an account."

4	The initial balance for opening an account must be a numeric floating-point value	Test an initial balance that is not a numeric value, i.e. a String.  Input Data: a String first name "A" last name "P" date of birth "11/11/2001" account type Checking, initial balance of "A"	"Not a valid amount."
5	The initial balance for opening an account must be a <i>positive</i> numeric floating-point value that is neither 0 nor negative	Input a balance that is negative or 0.  Input Data: a String first name "A" last name "P" date of birth "11/11/2001" account type Checking, initial balance of -1	"Initial deposit cannot be 0 or negative."
6	If the first name, last name, date of birth, account type, campus (if applicable), and initial balance are all valid, then the account is created and opened	Test a valid input. An account should be opened with the given field values.  Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Initial Balance: 1000	"A P 11/11/2001(C) opened."
7	If an account that has the same inputs (Profile holder, dob, initial balance) is already in the account database, then the opening of the account is not successfully executed. This includes the same profile holder holding different types of accounts in combinations which are not allowed (i.e. all Checking, College Checking, Savings, Money Market)	Open an account with valid input. Then attempt to open an account with the same values for the fields.  Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Initial Balance: 1000  Press Open twice.	"A P 11/11/2001(C) is already in the database."

8	If the specified account to be opened is a money market account, the deposit must be \$2000 or more	<p>Test a valid Money Market account but with an initial balance that is under \$2000.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Money Market, Loyal Customer: Unchecked, Initial Balance: 1000</p>	"Minimum of \$2000 to open a Money Market account."
9	If the specified account to be opened is a college checking account, one of the 3 campuses NB, Newark, or Camden <b>must be selected</b> . The user cannot select no campus and cannot select multiple campuses.	<p>Test a valid College Checking account but with no campus selected.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: College Checking, Campus: Unchecked, Initial Balance: 1000</p>	"Invalid campus code."
10	To close an account, all inputs must be filled for the account to be stored in the account database	<p>Test an account with missing data, such as the account type.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: unchecked, Initial Balance: 1000</p>	"Missing data for closing an account."
11	To close an account, the account must be an existing account in the account database. If it's not the operation terminates unsuccessfully with no account being closed	<p>Test an account with valid values that has not been added to the account database.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Initial Balance: 1000</p> <p>^ Attempt to close the above account without opening it.</p>	"A P 11/11/2001(C) is not in the database."

12	If the inputs of a Profile holder, dob, and initial balance match one that is in the account database with the inputs being in the correct form, the account is closed successfully	<p>Test an account with valid values that has been added to the account database.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Initial Balance: 1000</p> <p>^ First open the above account and then close it.</p>	"A P 11/11/2001(C) has been closed."
13	For a deposit command to successfully execute, the inputs to find an account in the account database (Profile holder, type of account) must match. If it doesn't, the account is not found and the deposit command is unsuccessful	<p>Attempt to deposit money into an account with valid values that has not been opened yet.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: 1000</p>	"A P 11/11/2001(C) is not in the database."
14	The deposit amount specified must be a numeric floating-point value	<p>Attempt to deposit money into an opened account with a String amount.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: "A"</p> <p>^ Given that the above account has been opened.</p>	"Not a valid amount."
15	The deposit amount specified must be a <i>positive</i> numeric floating-point value that is neither 0 nor negative	<p>Attempt to deposit money into an opened account with a negative amount.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: -1</p> <p>^ Given that the above account has been opened.</p>	"Amount cannot be 0 or negative."

16	If the account is found in the account database via valid inputs with a positive numeric floating-point value that is neither 0 nor negative, the deposit command is successfully executed	<p>Attempt to deposit money into an opened account with valid values.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: 1000</p> <p>^ Given that the above account has been opened.</p>	"A P 11/11/2001(C) Deposit - balance updated."
17	The withdrawal amount specified must be a numeric floating-point value	<p>Attempt to withdraw money from an opened account with a String amount.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: "A"</p> <p>^ Given that the above account has been opened.</p>	"Not a valid amount."
18	The withdrawal amount specified must be a <i>positive</i> numeric floating-point value that is neither 0 nor negative	<p>Attempt to withdraw money from an opened account with a negative amount.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: -1</p> <p>^ Given that the above account has been opened.</p>	"Amount cannot be 0 or negative."
19	For a withdrawal command to successfully execute, the inputs to find an account in the account database (Profile holder, type of account) must match. If it doesn't, the account is not found and the withdrawal command is unsuccessful	<p>Attempt to withdraw money from an account that is not in the database</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: 1000</p> <p>^ Given that the above account has not been opened yet</p>	"A P 11/11/2001(C) is not in the database."

20	The balance of the specified account must be greater than the withdrawal amount for the withdrawal command to successfully execute.	<p>Attempt to withdraw more money from an opened account than is currently in its balance.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: 1000</p> <p>^ Given that the above account has been opened with an initial balance of 500 and no changes have been made.</p>	"A P 11/11/2001(C) Withdraw - insufficient fund."
21	If the account is correctly found in the account database, and the withdrawal amount is a positive numeric floating-point number that is greater than the current balance of the account, the withdrawal command is successfully executed	<p>Attempt to withdraw money from an opened account with valid values that has a balance less than the desired withdrawal amount.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/11/2001", Account Type: Checking, Amount: 1000</p> <p>^ Given that the above account has been opened with an initial balance of 2000 and no changes have been made.</p>	"A P 11/11/2001(C) Withdraw - balance updated."
22	The date of birth of the Profile holder cannot be today or a future day	<p>Attempt to open an account with a date of birth that is today.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/6/2023", Account Type: Checking, Initial Balance: 1000</p>	"DOB invalid: 11/6/2023 cannot be today or a future day."
23	All profile holders of accounts in the account database must be 16 years of age or older	<p>Attempt to open an account with a date of birth that is 16 years ago or under.</p> <p>Input Data: First Name: "A", Last Name: "P", Date of Birth: "11/6/2010", Account Type: Checking, Initial Balance: 1000</p>	"DOB invalid: 11/6/2020 under 16."