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CISC 327 - Assignment 1: Test Cases

Login:

Test 1: login command with no valid accounts file

Purpose: Check that no transaction can be done before reading the VAF

Input: login, machine, withdraw accountNumber amount, logout

Input files: none

Output files: empty transaction file

Output: error message; no accounts to perform action on

Test 2: Attempt transaction before login

Purpose: Check that no transaction can be done before logging in

Input: withdraw accountNumber amount, login, machine, logout

Input files: any valid accounts file

Output files: empty transaction file

Output: error message; no user logged in

Test 3: Createacct/deleteacct attempt on an ATM mode login

Purpose: Cannot perform agent-only action in ATM mode

Input: login, machine, createacct accountNumber name, logout

Input files: any valid accounts file

Output files: empty transaction summary file

Output: error message; cannot perform that action in ATM mode

Test 4: Createacct/deleteacct attempt on an agent mode login

Purpose: Check if agent-only actions can be completed in agent mode

Input: login, agent, createacct accountNumber name, logout

Input files: any valid accounts file

Output files: transaction summary file with a line indicating the newly created account

Output: none

Test 5: Login command after successful login

Purpose: Check if a login cannot be performed while a user is currently logged in, and hasn't logged out

Input: Login, machine, login, machine, logout

Input files: valid accounts files

Output files: empty transaction file

Output: error message; cannot login while a session is currently active

Logout:

Test 1: logout command

Purpose: Check if system logs out the user, and outputs an appropriate transaction summary file

Input: login, machine, logout

Input files: valid accounts file

Output files: empty transaction summary file

Output: none

Test 2: logout command before logging in

Purpose: Cannot perform logout on no user

Input: logout, login, machine, logout

Input files: valid accounts file

Output files: empty transaction summary file

Output: error message; no user to log out

Test 3: Attempt transaction after logout

Purpose: Cannot attempt a transaction after logging out

Input: login, machine, logout, withdraw accountNumber amount

Input files: valid accounts file

Output files: empty transaction summary file

Output: error message; cannot perform transaction after being logged out

Createacct:

Test 1: createacc in ATM mode

Purpose: Check that createacc fails while in ATM mode

Input: login, machine, createacc 1234567 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: a privileged-user-only error message to the user

Test 2: createacc in agent mode

Purpose: Check that createacc succeeds in agent mode with valid input

Input: login, agent, createacc 1234567 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file only containing the following line:

"NEW 1234567 000 0000000 test"

Output: a success message to inform the user

Test 3: createacc with invalid account number beginning with 0

Purpose: Check that createacc fails when given an invalid account number beginning with 0

Input: login, agent, createacc 0234567 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 4: createacc with invalid account number with less than 7 digits

Purpose: Check that createacc fails when given an invalid account number with less than 7 digits

Input: login, agent, createacc 12 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 5: createacc with invalid account number with more than 7 digits

Purpose: Check that createacc fails when given an invalid account number with more than 7 digits

Input: login, agent, createacc 12345678 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 6: createacc with invalid account number with non-numeric digits

Purpose: Check that createacc fails when given an invalid account number with non-numeric digits

Input: login, agent, createacc abcdefg test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 7: createacc with pre-existing account number

Purpose: Check that createacc fails when given an account number already in the valid accounts file

Input: login, agent, createacc 1234567 test, logout

Input files: valid accounts file containing the following line:

"1234567"

Output files: transaction summary file empty

Output: a pre-existing account number error message to the user

Test 8: createacc with invalid account name with less than 3 characters

Purpose: Check that createacc fails when given an account name with less than 3 characters

Input: login, agent, createacc 1234567 ab, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account name error message to the user

Test 9: createacc with invalid account name with more than 30 characters

Purpose: Check that createacc fails when given an account name with more than 30 characters

Input: login, agent, createacc 1234567 abcdefghijklmnopqrstuvwxyz12345, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account name error message to the user

Test 10: createacc with invalid account name beginning with a space

Purpose: Check that createacc fails when given an account name beginning with a space

Input: login, agent, createacc 1234567 _test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account name error message to the user

Test 11: createacc with invalid account name ending with a space

Purpose: Check that createacc fails when given an account name ending with a space

Input: login, agent, createacc 1234567 test_, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account name error message to the user

Deleteacct:

Test 1: deleteacc in ATM mode

Purpose: Check that deleteacc fails while in ATM mode

Input: login, machine, deleteacc 1234567 test, logout

Input files: valid accounts file containing the following line:

"1234567"

Output files: transaction summary file empty

Output: a privileged-user-only error message to the user

Test 2: deleteacc in agent mode

Purpose: Check that deleteacc succeeds in agent mode with valid input

Input: login, agent, deleteacc 1234567 test, logout

Input files: valid accounts file containing the following line:

"1234567"

Output files: transaction summary file only containing the following line:

"DEL 1234567 000 0000000 test"

Output: a success message to inform the user

Test 3: deleteacc with invalid account number beginning with 0

Purpose: Check that deleteacc fails when given an account number beginning with 0

Input: login, agent, deleteacc 0234567 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 4: deleteacc with invalid account number with less than 7 digits

Purpose: Check that deleteacc fails when given an account number with less than 7 digits

Input: login, agent, deleteacc 12 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 5: deleteacc with invalid account number with more than 7 digits

Purpose: Check that deleteacc fails when given an account number with more than 7 digits

Input: login, agent, deleteacc 12345678 test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 6: deleteacc with invalid account number with non-numeric digits

Purpose: Check that deleteacc fails when given an invalid account number with non-numeric digits

Input: login, agent, deleteacc abcdefg test, logout

Input files: valid accounts file containing no accounts

Output files: transaction summary file empty

Output: an invalid account number error message to the user

Test 7: transaction on deleted account

Purpose: Check that transactions fail on a successfully deleted account

Input: login, agent, deleteacc 1234567 test, withdraw 1234567 001, logout

Input files: valid accounts file containing the following line:

"1234567"

Output files: transaction summary file containing only the following line:

"DEL 1234567 000 0000000 test"

Output: a transaction-on-deleted-account error message to the user

Deposits:

Test 1: Legit Deposit

Purpose: check that a legit deposit input information results a deposit without any problems

Input: account number, amount to deposit

Input files: valid accounts file which has an account with the same account number as the input

Output files: transaction summary file with the new deposit transaction added to it

Output: a success message to inform the user

Test 2: Illegal account number

Purpose: verify that the system will ignore deposits to non-existing account

Input: account number, amount to deposit

Input files: valid accounts file which does not hold an account with the same account number as the input

Output files: transaction summary file empty

Output: a non-existing account message to the user

Test 3: Illegal account number and illegal deposit amount

Purpose: verify that the system will ignore illegal info entered

Input: illegal account number, illegal amount to deposit

Input files: valid accounts file

Output files: transaction summary file empty

Output: an invalid info entered fault message to the user

Test 4: Above the limit deposit – ATM mode

Purpose: check that a deposit above 1000$ in ATM mode fail.

Input: account number, amount to deposit – 1001$

Input files: valid accounts file which has an account with the same account number as the input

Output files: transaction summary file empty

Output: an over the limit fault message to the user

Test 5: Above the limit deposit – Agent mode

Purpose: check that a deposit above 999,999.99$ in agent mode fail.

Input: account number, amount to deposit – 1,000,000.00$

Input files: valid accounts file which has an account with the same account number as the input

Output files: transaction summary file empty

Output: an over the limit fault message to the user

Withdraws:

Test 1: Legit Withdraw

Purpose: check that a legit withdraw input information results a withdraw without any problems

Input: account number, amount to withdraw

Input files: valid accounts file which has an account with the same account number as the input

Output files: transaction summary file with the new withdraw transaction added to it

Output: a success message to inform the user

Test 2: Illegal account number

Purpose: verify that the system will ignore withdraws to non-existing account

Input: account number, amount to withdraw

Input files: valid accounts file which does not hold an account with the same account number as the input

Output files: transaction summary file empty

Output: a non-existing account message to the user

Test 3: Illegal account number and illegal withdraw amount

Purpose: verify that the system will ignore illegal info entered

Input: illegal account number, illegal amount to withdraw

Input files: valid accounts file

Output files: transaction summary file empty

Output: an invalid info entered fault message to the user

Test 4: Above the limit withdraw in a transaction – ATM mode

Purpose: check that a withdraw above 1000$ in ATM mode fail.

Input: account number, amount to deposit – 1001$

Input files: valid accounts file which has an account with the same account number as the input

Output files: transaction summary file empty

Output: an over the limit fault message to the user

Test 5: Above the limit withdraw in a transaction – Agent mode

Purpose: check that a withdraw above 999,999.99$ in agent mode fail.

Input: account number, amount to withdraw – 1,000,000.00$

Input files: valid accounts file which has an account with the same account number as the input

Output files: transaction summary file empty

Output: an over the limit fault message to the user

Test 6: Above the limit withdraw in a session – ATM mode

Purpose: check that the total withdraws in a single session from 1 account cannot get higher than 1000$.

Input: account number, amount to deposit – 500$, amount to deposit – 501$.

Input files: valid accounts file which has an account with the same account number as the input

Output files: transaction summary file with the new first withdraw transaction added to it

Output: an over the limit fault message to the user from the second withdraw

Transfers:

Test 1: Legit Transfer

Purpose: check that a legit withdraw input information results a withdraw without any problems

Input: from account number, to account number, amount

Input files: valid accounts file which has 2 accounts with the same account numbers as the input

Output files: transaction summary file with the new transfer transaction added to it

Output: a success message to inform the user

Test 2: Illegal account number

Purpose: verify that the system will ignore transfers to and from non-existing accounts

Input: from account number, to account number, amount

Input files: valid accounts file which doesn't have at least 1 of 2 accounts with the same account numbers as the input

Output files: transaction summary file empty

Output: a non-existing account message to the user

Test 3: Illegal account number and illegal withdraw amount

Purpose: verify that the system will ignore illegal info entered

Input: from account number, to account number, amount

Input files: valid accounts file

Output files: transaction summary file empty

Output: an invalid info entered fault message to the user

Test 4: Above the limit transfer in a transaction – ATM mode

Purpose: check that a transfer above 1000$ in ATM mode fail.

Input: from account number, to account number, amount to transfer– 1001$

Input files: valid accounts file which has 2 accounts with the same account numbers as the input

Output files: transaction summary file empty

Output: an over the limit fault message to the user

Test 5: Above the limit transfer in a transaction – Agent mode

Purpose: check that a transfer above 999,999.99$ in agent mode fail.

Input: account number, amount to transfer– 1,000,000.00$

Input files: valid accounts file which has 2 accounts with the same account numbers as the input

Output files: transaction summary file empty

Output: an over the limit fault message to the user