In order to conduct our testing of the Quinterac program for this assignment, we modified the template file in a number of ways. We maintained the structure of the test functions, apart from changing the naming convention to camel case which follows the rest of the program's naming conventions.

As for the helper function itself, we followed the general structure but added a few additional elements to the input and output requirements of the program. We created three temporary files, one for the transaction summary file, one for the valid accounts list file, and one for the current session file. The first two file names and the session file itself are passed to the app initializer that runs the program.

Following, the testing information is printed out to the command line, and the expected results are compared to the actual results using the asset operator to validate the tests. This gives the results of each test run which allows us to determine the points of error in each operation and isolate the areas that require fixing.

Failure Report:

TestLogin.py

All tests passed successfully.

TestLogout.py

Test Name	Requirements Being Tested	Why Output Was Incorrect	Error in Code	Changes Made to Fix
TestValidLogout	Logout should only be accepted after login	Program didn't exit properly. Thus inputs did not match expected output	EOF	Changed how the program exits on logout.

TestTransaction SummaryUpdate PostLogout	Write to the transaction summary file after logout.	Session file was getting overwritten before writing to the transaction summary file.	The function was opening a local session file that was getting overridden by each test being run in parallel.	Made session file into a temp file. Now runs independently, and not in parallel.
All other test cases passed.				

TestCreateAccount.py

Test Name	Requirements Being Tested	Why Output Was Incorrect	Error in Code	Changes Made to Fix
testTransactions OnNewAccount	No transactions on new account accepted	Allowed transactions on new account.	Assertion error. Expected output != terminal output	Added checks to dep, wdr, and xfr, for new accounts.
All other test cases passed.				

TestDeleteAccount.py

Test Name	Requirements Being Tested	Why Output Was Incorrect	Error in Code	Changes Made to Fix
testValidDelete Account	Account is removed when user is in Agent Mode.	The account was not removed from the valid accounts list file.	The function would remove the account from the session accounts list only	Write new list of accounts to the valid accounts list file.
All other test cases passed.				

TestTransfer.py

All (but Exit Error) common test failures occurred.

TestWithdraw.py

All (but Exit Error) common test failures occurred.

TestDeposit.py

All (but Exit Error) common test failures occurred.

Common Failures Across All Tests

Why Output Was Incorrect	Error in Code	Changes Made to Fix
The terminal input was missing expected input for the sequential steps.	EOF	The terminal input was updated to reflect the correct input flow by running program normally simulating the test situation.
The predicted output composed from running the program was incorrect compared to what is printed out when running via testing	Assertion Error	Output was taken from print statements from helper function and were replaced in the test case input.
The file path was missing or incorrect. This was due to project restructuring.	FileNotFound Error	The file path was changed for any resource files required and updated in the initialization of the program.
When exiting the program, the test was not finished before the program ended.	System Exit() Error	Changed how the program exits. No longer returns to the previous function call on exit.