Back End Testing Specifications

Since we are only tasked with white-box testing the processing of withdraw and account creation transactions this led to very few test cases. This is due to the structure of our code in that most of the transaction verification happens generally for all the transactions but the only part that is specific to these statements.

These tests are contained in separate testing files test_new_account.py and test_withdraw.py inside of the back_end_test folder where the input and output for each case can be seen.

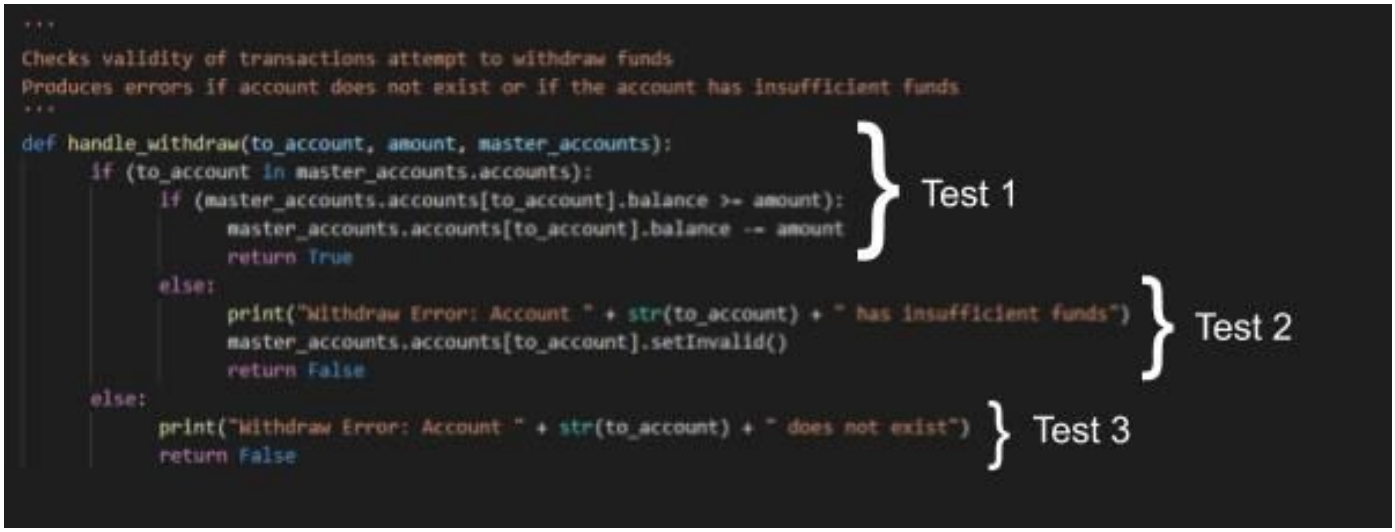
Withdraw - Decision White Box Testing

In the withdraw function there are two if/else statements. The one is nested inside the first if statement. The decision tree is as follows:

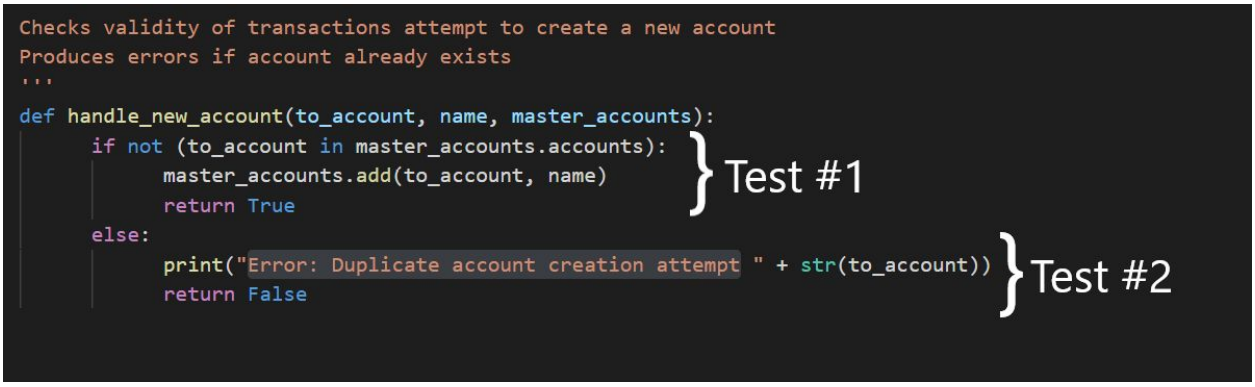
if (account in master account):
    if (account has sufficient funds)
    else:
else:

Therefore the function requires three test cases to sufficient test all possible decision outcomes.

Test 1: account is in master and has sufficient funds
Test 2: account is in master and does not have sufficient funds
Test 3: account not in master



Account Creation - Statement White Box Testing



As shown in the picture above to ensure the testing of all the statements used in account creation I had to insure both cases of the conditional were triggered making this extremely similar to decision testing.

Test #1: A new account transaction is in one of the transaction summary files with all valid fields.

Test #2: A new account transaction is in one of the transaction summary files however has the same account number as a pre-existing account.

Testing Rounds - All Tests

Round 1

All tests failed due to error in test suite. Fixed references to temp file in test_main.py such that they would not overwrite the same contents into all.

Round 2

Test Name	Description of Failure	Error in Code	How Fixed
Test_new_account - Test 1	Created accounts attributes mixed up	Master_accounts.py line 15 creation of Account object given parameters in wrong order	Switched order of parameters

Round 3 - All tests Passed