**CISC 327 Assignment 5 Withdraw Test Report**

**Source Listing:**

For this test, path testing will be used to test the withdrawal function of the back office. Withdrawing from an account is implemented as depositing a negative amount to it, to minimize unnecessary code reuse:

1. def withdraw(self, number, balance):

2. self.deposit(number, - int(balance))

3. pass

Therefore, testing withdraw really means testing deposit. The body of withdraw is as follows:

1. def deposit(self, number, balance):

2. for count, account in enumerate(self.account\_list):

3. if account[0] == number:

4. account[1] = account[1] + balance

5. if acccount[1] < 0:

6. sys.stdout.write('Error: account has negative balance.')

7. break

8. pass

**Test Cases:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Decision Path | X input | Y input | Z input (account list) | Test | x | y | z |
| 1,2,3,8 | 2222222 | 1300 | [1111111,  2345678,2000] | T1 | 2222222 | 1300 | [1111111,  2345678,2000] |
| 1,2,3,4,5,7,8 | 1111111 | 1300 | [1111111,  2345678,2000] | T2 | 1111111 | 1300 | [1111111,  2345678,2000] |
| 1,2,3,4,5,6,7,8 | 1111111 | 2300 | [1111111,  2345678,2000] | T3 | 1111111 | 2300 | [1111111,  2345678,2000] |

**T1:** Checks what happens if the desired account to withdraw from does not exist; in this case nothing should happen.

**T2:** Checks to see if valid withdrawals, ie where account numbers match and the account has sufficient funds, are allowed.

**T3:** Checks to see if attempting to withdraw more funds from an account than it posseses is allowed; it should fail and produce an error message to the console.

**Sample Test Cases:**

WDR 2222222 1300 Test 1

WDR 1111111 1300 Test 2

WDR 1111111 2300 Test 3

In addition to the test input file, the following **master\_account\_list.txt** file will be used in tests to check the validity of withdrawal operations

1111111 2000 aaa

0000000

**Test Report:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Number | Test Name | Purpose | Failure | Changes |
| T1 | Nonexistent Account Number | Checks to see if withdrawals from nonexistent accounts are not processed | Successful test | (-) |
| T2 | Valid Withdrawal | Checks to see if legal withdrawals from real accounts are processed | Successful test | (-) |
| T3 | Invalid Withdrawal | Checks to see if withdrawals that would leave the account with below zero balance are forbidden and print an error | An error is printed to the console, but the transaction is processed anyway. This affects both withdrawal and transfer operations. | Check for negative balance is made before the account balance is changed; additionally, transfer operations will not continue if the withdrawal fails. |