

### Assignment 3 - Report

Meryl Gamboa - 10173192

Zane Little - 10179568

Stefan Urosevic - 10146785

Test Name	What it is Testing?	The nature of the failure	Error in the code.	How the program/test input was changed.
Tcreateacct13TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	The transaction summary showed that transaction was successful, when it should just have EOS within the file.	The space before account name is not being flagged as invalid.	Changed cin to getline and addes cin.ignore before getline.
Tcreateacct14TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	The transaction summary showed that transaction was successful, when it should just have EOS within the file.	The space before account name is not being flagged as invalid.	Changed cin to getline and addes cin.ignore before getline.
Tcreateacct15TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	Test case was missing createacct and expected transaction file had an extra line.	There was no error within our code, the error was within our input and expected file.	Added createacct and removed the extra line in the expected file.
Tcreateacct17TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	Our attempt to exit the command failed because we used something that is valid by accident.	N/A, this was not an issue with the code itself.	The accidental valid command was replaced with the intended invalid command.
Tcreateacct2TransactionSummary	The transaction	Our attempt to exit the	N/A, this was not an	The accidental valid

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	summary file is the same as the expected transaction summary file.	command failed because we used something that is valid by accident.	issue with the code itself.	command was replaced with the intended invalid command.
Tcreateacct3TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	Used the wrong account number.	There was no error within our code, the error was within our input.	Changed the account number in the input file with the correct account file.
Tdeleteacct12TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	The transaction summary showed that transaction was successful, when it should just have EOS within the file.	The space before account name is not being flagged as invalid.	Changed cin to getline and addes cin.ignore before getline.
Tdeleteacct13TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	The transaction summary showed that transaction was successful, when it should just have EOS within the file.	The space before account name is not being flagged as invalid.	Changed cin to getline and addes cin.ignore before getline.
Tdeleteacct8TransactionSummary	The transaction summary file is the same as the expected transaction summary file.	Our attempt to exit the command failed because we used something that is valid by accident.	N/A, this was not an issue with the code itself.	The accidental valid command was replaced with the intended invalid command.
Twithdraw9TransactionSummary	The transaction summary file is the same as the expected	Our check for withdrawing more than \$1000 in machine mode	We were missing the first digit when checking whether the	We fixed this by making it check the missing first digit as well as the rest

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	transaction summary file.	isn't working for multiple transactions that add up to \$1000. We were missing the first digit when checking the account number.	account number was used for other withdraws (returning 234567 when the account number was 1234567)	
Tcreateacct13Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tcreateacct14Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tcreateacct15Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tcreateacct1Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tcreateacct2Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tcreateacct8Output	The output file is the same as the expected	The expected output file was not written	There was no error within our code, the	Changed the expected output file with the correct

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	output file.	correctly.	error was within our expected file.	content.
Tdeleteacct12Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tdeleteacct13Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tdeleteacct19Output	The output file is the same as the expected output file.	The input file was incorrect	There was no error within our code, the error was within our input file.	Changed the input file with the correct content.
Tdeleteacct8Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tdeposit8Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Tdeposit6Output	The output file is the same as the expected output file.	The expected output file was not written correctly.	There was no error within our code, the error was within our expected file.	Changed the expected output file with the correct content.
Ttransfer10Output	The output file is the	Expected output was	There was no error	Adding in all the spaces we

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	same as the expected output file.	missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	within our code, the error was within our expected file.	missed in the expected files.
Ttransfer11Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer12Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer13Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.

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Ttransfer14Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer16Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer1Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer20Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.

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		the same so test failed.		
Ttransfer21Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer2Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer7Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Ttransfer8Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.

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		unnecessary) so the files were not seen as the same so test failed.		
Ttransfer9Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.
Twithdraw6Output	The output file is the same as the expected output file.	Expected output was missing spaces where there should have been spaces(Atom removes white spaces that seems unnecessary) so the files were not seen as the same so test failed.	There was no error within our code, the error was within our expected file.	Adding in all the spaces we missed in the expected files.

#### Other issues we encountered:

- NOTE: I had to change Ttransfer17Input.txt: it was testing invalid amount but went on to put the second account number in (my bad) so we'll have to run that again for the actual output, but I changed it for the expected output.
  - I removed line 6 in TtransferInput.txt



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```
Ttransfer17Input.txt
1 login
2 agent
3 transfer
4 1111111
5 100000000
6 1234567
7 logout
8 exit
9 x
10
```

- Tests
  - Issue: Most did not exit the program correctly due to unknown user prompts
  - Resolution: This was fixed by changing the tests to exit correctly
- Transfer function:
  - Issue: Prompts like this:  
*"Please enter the account number to transfer to: Please enter amount to transfer (in cents): Please enter the account number to transfer **to**: ..."*  
But should prompt like this:  
*"Please enter the account number to transfer to: Please enter amount to transfer (in cents): Please enter the account number to transfer **from**: ..."*
  - Resolution: change "to" to "from" on line ~443 (may not be exact line #s in current version but this is the cout before the cin >> act2)

```
442 // Retrieve from account number
443 cout << "Please enter the account number to transfer from: ";
444 cin >> act2;
```

- Delete account:
- Issue: Crashes when returning failed from this function

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- Cause: if statement handling \$FAILED did not encase deleting account from accounts vector
- Resolution: Change if statement on line ~624 to enclose lines ~624-631 (may not be exact line #s in current version)

```
620     else if (inStr == "deleteacct")
621     {
622         transaction = deleteacct(accounts, priv);
623
624         if (transaction[0] != '$')
625         {
626             transactions.push_back(transaction);
627
628             //delete account from accounts vector
629             acctPos = findPos(accounts, transaction.substr(4, 7));
630             accounts.erase(accounts.begin() + acctPos);
631         }
632     }
```

- createacct and deleteacct:
  - the method we used for getting input did not allow spaces (cin) so we had to change this
  - Did not allow spaces in the middle of a name: added space to allowable characters when checking validity of a name (excluding first character)

### Batch File Code

@Echo off

echo Creating Output Folders

rem Creates the output folders if they do not already exist

if not exist "%OutTransactionFiles%" mkdir OutOutputFiles\

if not exist "%OutOutputFiles%" mkdir OutTransactionFiles\

echo Running Program

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```
rem Loops through the files in the specified folder
rem then loops through the file name to get the test name (Tlogin#, etc)
rem then loops through the file name to get the test number
rem then runs the program with all the files it needs
FOR /F %%j IN ('dir /b "InInputFiles\ "') DO (
    for /f "tokens=1 delims=1234567890" %%a in ("%%j") do (
        for /f "tokens=1 delims=abcdefghijklmnopqrstuvwxyz._\ABCDEFGHIJKLMNOPQRSTUVWXYZ" %%b in ("%%j") do (
            echo Running Input File %%j
            QBASIC.exe<InInputFiles\%%j AccountsFile.txt OutTransactionFiles\%%a%%bTransactionSummary.txt
            >OutOutputFiles\%%a%%bOutput.txt
        )
    )
)
```

echo Comparing Output Files

if not exist "\ErrorLogs\" mkdir ErrorLogs\

rem Loops through the output files in the same way as above and compares the  
rem output files with the expected output files. Repeats the file name concept  
rem as stated above

echo Comparing Output Files

echo Output Summary Files Errors:>ErrorLogs\OutputErrorLog.txt

```
FOR /F %%j IN ('dir /b "OutOutputFiles\ "') DO (
    for /f "tokens=1 delims=1234567890" %%a in ("%%j") do (
        for /f "tokens=1 delims=abcdefghijklmnopqrstuvwxyz._\ABCDEFGHIJKLMNOPQRSTUVWXYZ" %%b in ("%%j") do (
            echo Comparing File %%j
            fc OutOutputFiles\%%j ExpectedOutputFiles\%%a%%bOutputExpected.txt > nul
            if errorlevel 1 echo %%j>>ErrorLogs\OutputErrorLog.txt
        )
    )
)
```

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```
)
)
)

rem Repeats the step above except with transaction summary files
Echo Comparing Transaction Summary Files
echo Transaction Summary Files Errors:>ErrorLogs\TransactionSummaryErrorLog.txt
FOR /F %%j IN ('dir /b "OutTransactionFiles\ "') DO (
    for /f "tokens=1 delims=1234567890" %%a in ("%%j") do (
        for /f "tokens=1 delims=abcdefghijklmnopqrstuvwxyz._\ABCDEFGHIJKLMNOPQRSTUVWXYZ" %%b in ("%%j") do (
            echo Comparing File %%j
            fc OutTransactionFiles\%%j ExpectedTransactionFiles\%%a%%bTransactionSummaryExpected.txt > nul
            if errorlevel 1 echo %%j>>ErrorLogs\TransactionSummaryErrorLog.txt
        )
    )
)

echo Done Testing
pause
```