Failure logs
Every function

#	Test case	Failure	Error in code	Action
	Every test case	Missing transaction file	Write file not implemented	Implement write file function

Login (10)

#	Test case	Failure	Error in code	Action
001	Login as an admin	After logging in, script would not stop	Program does not exit causing infinite loop because of missing quit/exit command and read accounts did not work properly	Added exit at end of logout and fixed read account function
002	Login as a standard user			
004	User attempts to enter an invalid command	Incorrect output	Missing output, no newline, different output	Added missing output, newlines in program, change output to correct output
005	User tries to login after being logged in			
003	User enters an invalid name	Program in an infinite loop	Input file did not have quit command	Added quit command to inputfile
006	Attempt commands other than login before logging in	Program in an infinite loop

output incorrect | Input file did not have quit commands

input command did not match command list | Added quit command to inputfile

change program so input command matches command list |
| 007 | A standard user attempts privileged commands | Program in an infinite loop | input file did not login properly | Fixed input file to properly login |

Logout (00)

#	Test case	Failure	Error in code	Action
001	Logout as a standard user	After logging in, script would not stop

Incorrect output | Program does not exit causing infinite loop

Missing output, no newline, different output | Added exit at end of logout |
| 002 | Logout as an admin | | | Added missing output, newlines in program and changed output |

Withdrawal (01)

#	Scenario	Failure	Error in code	Action
001 004	Standard user withdraws a valid amount User attempts to withdraw an invalid amount	Not taking numbers as inputs output file missing outputs	Directly assigning integers with cin	Change from cin to getline added missing outputs to output file
002 003	User attempts to withdraw more than 500.00 from their account User attempts to withdraw more than 500.00 in one day but separately	Different output files output missing trailing zeros for decimal and dollar sign	Output file missing outputs and output file inconsistent with other output files Output line is not formatted to allow 2 decimal place output and is missing a dollar sign	Added missing output to output file and changed output file to match other output files Change from cout to printf to allow formatting and added dollar sign
005	User attempts to withdraw from an account that does not belong to them	Program in an infinite loop	Input file inputting wrong values	Changed value in input file to correct value
006 007 008 009 010 011	User attempts to withdraw from an invalid account User attempts to withdraw more than the amount currently in their account User attempts to withdraw from a disabled account User attempts to withdraw their entire balance Admin withdraws from an account User attempts to withdraw an amount not evenly divisible by 5	Different outputs	Output files missing outputs, and output files have different outputs	Added missing outputs and changed outputs to matching outputs

Transfer (02)

#	Test case	Failure	Error in code	Action
001	User transfers a valid amount of fund from one account to another	Different outputs Transaction did not complete, program stopped mid way	Output file missing lines Code did not contain proper try catch block	Added missing output to output files implemented proper try catch block
002 003	Admin transfers a valid amount of fund from one account to another User transfers an amount greater than 1000.00	Input error Different output	Input file missing logout, also contain output actual output contain infinite loop, output file missing lines	Removed output from input file, added logout Added logout to stop infinite loop, added missing lines in output file
004 005 006 008	User transfers from an invalid account User transfers to an invalid account User transfers to a disable account User transfers their entire balance	Different outputs	Output file missing outputs, and output file has different outputs	Added missing outputs and change the outputs in the output file
007 009	User transfers more than 1000.00 in one day but separately Admin transfer entire balance	Transaction failed Different outputs	Account has insufficient funds because current account file contains less that inputted amount Output file is missing outputs	Changed the test case inorder for the test work with the amount in the accounts file Added missing outputs

Paybill (03)

#	Scenario	Failure	Error in code	Action
001	User pays a bill	Different outputs Different transaction files	Output file missing outputs, value missing decimals Expected transaction file did not account for fees	Added missing outputs, and decimals to output file added transaction fee to expected transaction file
002	User pays a bill without sufficient funds	Different outputs	Output file missing outputs, value missing decimals, output file has different outputs	Added missing outputs to output file, added decimals, and change the differnt outputs in the output file
004	User pays a bill using an invalid account	Program looped infinitely	Call to paybill failed in the code, getting invalid account used an input method that caused errors.	Std::cin changed to std::getline.
005 008	Standard user pays a bill using more then 2000.00 Admin pays a bill using an entire account balance	Different output	Current accounts file did not contain an account which had 2000.00 dollars	Added an entry in the accounts file to accomodate the test case.

Deposit (04)

#	Scenario	Failure	Error in code	Action
002 003	User deposits an invalid amount User deposits into an invalid account	Program hangs	Reading a string into a floating point screws up when using std::cin.	Std::cin changed to std::getline. Input parsed to a float.
004	User deposits into a disabled account	Transaction successful	Check in code for disabled accounts did not go through	Restructured the if statement structure
005	User deposits an amount that causes their account to become negative	Different outputs, transaction goes through	Code did not check for negative values	Added in a condition to check for negative values

Create (05)

#	Scenario	Failure	Error in code	Action
002	Creating an account with no name	Program hangs	Cin causes the program to go into an infinite loop	Change cin to getline
003	Create an account with a name too long (exceeding 20 characters)	Different output file	Output file missing lines, output file has different outputs	Added missing outputs, change outputs to correct outputs
004	Create an account with a name that contains invalid characters			
005	Create an account with no balance	Different output	Output file has different outputs	Change the output file outputs
006	Create an account with an invalid balance	Transaction fails	Input does not throw when letters are found for number input	Added new variable to detect if letters are in input
007	Create an account with a balance exceeding maximum amount	Transaction passes	Used equal or greater than	Changed to just greater than

Delete (06)

#	Scenario	Failure	Error in code	Action
002	Delete an non-existing person's account	Out of range	Try catch block not catching out of range	Specify the catch to catch out of range
003	Delete an account number that does not exist			

Disable (07)

#	Scenario	Failure	Error in code	Action
001	Disable an account as an admin	Program stopped before test finished	read_accounts() preserved trailing whitespaces	Function to trim strings of whitespaces created and applied to account names during reading.
002	Enter an invalid account holder's name	Program hanged	Std::cin inputting a string into a float causes std::cin to stop working	Changed from std::cin to std::getline.
003	Enter an invalid account number			

Enable (09)

#	Scenario	Failure	Error in code	Action
001	Enable an account as an admin	Program stopped before test finished	read_accounts() preserved trailing whitespaces	Function to trim strings of whitespaces created and applied to account names during reading.
002	Enter an invalid account holder's name			
003	Enter an invalid account number	Program hanged	Std::cin inputting a string into a float causes std::cin to stop working	Changed from std::cin to std::getline.