## CSCI 3060U/SOFE 3980U

## **Course Project Assignment #3: Front End Requirements Testing**

Team name: Untitled

## Albert Fung 100520898 Karan Chandwaney 100472699 Calvin Lo 100514352

Test Case	What they are intended to test	Nature of failure	Error in the code	Actions taken to fix it
		loginlogo	ut	
01_loginlogout_std _session	Test if session asks for account holder's name in a standard session	test case output file and transaction file missing informations	None	changed output file to reflect correct output  changed the input file to correct the account name  changed the trans file account number from 00001 to 00000
02_loginlogout_be gin_transactions	Test if the session reads in current bank account file and accepts transactions after kind and name are accepted	test case output file and transaction file missing informations  the test case trans file have the logged the transaction that did not complete successfully	missing method to check if the input is equal to transaction name or not.	changed output file to reflect correct output  changed the input file to correct account name  changed the trans file account number from 00001 to 00000  added

				isTransaction()  check if the input is transaction every time the program read command  changed the trans file to correct transaction
03_loginlogout_not _logged_in	Test if other transactions are accepted when user is not logged in and logout transaction is only accepted when logged into a session	test case output file and transaction file missing informations  does not create transaction file in some cases	missing for writing an empty transaction file when not logged in	create a new method a FileWriter that create a new File create the file once the session start
04_loginlogout_su bsequent_login	Test if subsequent logins are accepted when user is not logged out	test case output file and transaction file missing informations  the test case trans file have the logged the transaction that did not complete successfully	while login into a non exist account name, the program still record as logged in	changed output file to reflect correct output  changed the login mode to 'N' if the account name is not valid changed the trans file to correct transaction
05_loginlogout_un privileged	Test if only unprivileged transactions are accepted after standard login	test case output file and transaction file missing informations  the test case trans file have the logged the transaction that did not complete successfully	None	changed output file to reflect correct output changed the trans file to correct transaction

06_loginlogout_pri vileged_transactio ns	Test if after admin is logged in, all transactions are accepted	test case output file and transaction file missing informations  the test case trans file have the logged the transaction that did not complete successfully	None	changed output file to reflect correct output changed the trans file to correct transaction
07_loginlogout_dis abled_account	Test if the session can login to a disabled account but cannot do any transaction	Not a needed test case, login did not check for disable account or not	None	deleted test case.
08_loginlogout_log ged_out	Test if bank account transaction file is updated correctly	test case output file and transaction file missing informations  the test case trans file have the logged the transaction that did not complete successfully	None	changed output file to reflect correct output changed the trans file to correct transaction
09_loginlogout_log ged_out_transacti ons	Test if the session stops accepting any transactions except login	test case output file and transaction file missing informations  the test case trans file have the logged the transaction that did not complete successfully does not change input type	the input type keep as "file input" after reading all the rows	changed output file to reflect correct output  changed the trans file to correct transaction  change the input type to terminal when reached last row

		withdraw	al	
01_withdrawal_prompt	Test if the session ask for account holder's name if logged in as admin	test case input file and output file missing prompts and information incorrect input some output prompts missing	none	corrected grammatical errors
02_withdrawal_ac c_name_validation	Test if the bank account is a valid account for the account holder currently logged in	test case input file and output file missing prompts and information incorrect input some output prompts missing	did not check if the account name and number match	changed output file to reflect changes changed input file to reflect changes corrected grammatical errors
03_withdrawal_ac c_num	Test if the session ask for account number	test case input file and output file missing prompts and information incorrect input some output prompts missing	none	corrected grammatical errors
04_withdrawal_na menum	Test if the session only allow account holder name and account number entered in admin	test case input file and output file missing prompts and information incorrect input	did not check if account name and number match	changed output file to reflect changes changed input file to reflect changes

	mode matched. If not matched, the login should be rejected	some output prompts missing		corrected grammatical errors
05_withdrawal_mo ney	Test if session ask for the amount to withdraw	test case input file and output file missing prompts and information incorrect input some output prompts missing	none	corrected grammatical errors
06_withdrawal_for matvalidation	Test if session only allow the amount format in ####.## where # is 0-9	test case input file and output file missing prompts and information incorrect input some output prompts missing	did not check if the amount format in ####.## or not	changed output file to reflect changes changed input file to reflect changes corrected grammatical errors
07_withdrawal_std mode	Test if the amount to withdraw in standard mode can only be less or equal than \$500.00	test case input file and output file missing prompts and information incorrect input some output prompts missing	did not check condition	changed output file to reflect changes changed input file to reflect changes corrected grammatical errors
08_withdrawal_ad minmode	Test if the amount to withdraw in admin mode can be unlimited (over	test case input file and output file missing prompts and information	did not check condition	changed output file to reflect changes changed input file to reflect

	\$500.00)	incorrect input some output prompts missing		changes corrected grammatical errors
09_withdrawal_ac cbalancevalid	Test if the amount to withdraw must be higher or equal than the account balance	test case input file and output file missing prompts and information	none	corrected grammatical errors
10_withdrawal_div by5	Test if withdrawal amount is divisible by 5, and reject request otherwise	test case input file and output file missing prompts and information incorrect input some output prompts missing	did not check condition	changed output file to reflect changes changed input file to reflect changes corrected grammatical errors
11_withdrawal_SP _transaction_fee	Test if the withdrawal amount is balance + 5 cent in student plan. (If the balance is \$400.00, withdraw \$400 is rejected)	test case input file and output file missing prompts and information incorrect input some output prompts missing	none	corrected grammatical errors
12_withdrawal_NP _transaction_fee	Test if withdrawal amount is balance + 10 cent in non- student plan. (if the balance is \$400, withdraw \$400 is rejected)	test case input file and output file missing prompts and information incorrect input some output prompts missing	none	corrected grammatical errors

transfer				
01_transfer_promp t	Test if the session prompts for the account holder's name when logged in as admin	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction
02_transfer_origin accnum	Test if the session prompts for the account number that the money will be coming from	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction
03_transfer_origin accnamenum	Test if the session only allow account holder name and origin account number entered in admin mode matched. If not matched, the login should be rejected	test case output file and transaction file missing informations incorrect input did not check for condition	did not check if account number and name match or not	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added code to check if account number and name match or not
04_transfer_desta ccnum	Test if the session prompts for the account number that	test case output file and transaction file missing informations	None	changed input file to test the intention

	the money will be going to	incorrect input		changed output file to reflect correct output changed the trans file to correct transaction
05_transfer_desta mt	Test if the session prompts for the amount to transfer	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction
06_transfer_desta mtformat	Test if session only allow the amount format in ####.## where # is 0-9	test case output file and transaction file missing informations incorrect input did not check for condition	did not check for amount format	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  used method isCorrectFormat to check if the format is correct or not
07_transfer_destv alidaccnum	Test if the session asks for a valid account number where the money will be going to	test case output file and transaction file missing informations incorrect input did not check for condition	did not check for a valid account number where the money will be going to	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction

				added code to check the number is valid or not
08_transfer_origin validaccnum	Test if the session asks for a valid account number where the money will be coming from	test case output file and transaction file missing informations incorrect input did not check for condition	did not check for a valid account number where the money will coming from	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added code to check the number is valid or not  added code to find the account name of the money go to
09_transfer_stdma xtransfer	Test if the amount of funds in the current session that can be transferred does not exceed \$1000.00 in standard mode	test case output file and transaction file missing informations incorrect input did not check for condition	did not check for the amount cannot exceed \$1000.00	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added code to check if the amount exceed \$1000.00 or not
10_transfer_posttr ansfer	Test if the account balance of both accounts are at least \$0.00 after transfer	test case output file and transaction file missing informations incorrect input	did not check if the balance are at least \$0 or not	changed input file to test the intention changed output file to reflect correct output

		did not check for condition		changed the trans file to correct transaction added code to check if the balance are at least \$0 or not
11_transfer_SP_tr ansaction_fee	Test if the transfer amount is balance + 5 cent in student plan. (If the balance is \$400.00, transfer \$400 is rejected)	test case output file and transaction file missing informations incorrect input did not check for condition	did not check if the transfer amount is balance + 5 cent in the student plan	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added code to check if the transfer amount is balance + 5 cent in the student plan
12_transfer_NP_tr ansaction_fee	Test if the transfer amount is balance + 10 cent in non- student plan. (if the balance is \$400, transfer \$400 is rejected)	test case output file and transaction file missing informations incorrect input did not check for condition	did not check if the transfer amount is balance + 10 cent in the non student plan	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added code to check if the transfer amount is balance + 10 cent in the non student plan
13_transfer_disabled	Test if the transfer goes through to a disabled account.	test case output file and transaction file missing informations	did not check if transaction is success or not in a disabled	changed input file to test the intention

		incorrect input did not check for condition	account	changed output file to reflect correct output  changed the trans file to correct transaction  added code to check if transaction is success or not in a disabled account
		paybill		
01_paybill_accna me	Test if session asks for account holder's name when logged in as admin	test case output file and transaction file missing informations incorrect input did not check for condition	did not check for valid name	changed output file to reflect correct output changed code to make use of the new functions that verify the bank account holder changed default valid name to false
02_paybill_accnu m	Test if session asks for account number	test case output file and transaction file missing informations  incorrect input  did not check for condition	did not check for valid number	changed output file to reflect correct output  changed code to make use of the new functions that verify the bank account number are valid  changed default valid number to false  changed the trans file to correct transaction
03_paybill_accna meandnum	Test if the session only allow account	test case output file and transaction file missing	did not check for match account name and	changed input file to test the intention

	holder name and account number entered in admin mode matched. If not matched, the login rejected	informations incorrect input did not check for condition	number	changed output file to reflect correct output  changed code to make use of the new functions that verify the bank account number and account holder name are match  changed the trans file to correct transaction
04_paybill_compa nyname	Test if session asks for company name to whom bill is being paid	test case output file and transaction file missing informations incorrect input	None	changed output file to reflect correct output  changed input file to test the intention  changed the trans file to correct transaction
05_paybill_compa nyamt	Test if session asks for amount to be paid to company	test case output file and transaction file missing informations incorrect input	None	changed output file to reflect correct output  changed input file to test the intention  changed the trans file to correct transaction
06_paybill_amtfor mat	Test if session only allow the amount format in ####.## where # is 0-9	test case output file and transaction file missing informations incorrect input	code did not check for the format	changed output file to reflect correct output changed input file to test the intention

				changed the trans file to correct transaction  create a new method isCorrectFormat() to check the format  include regex library to header file
07_paybill_validac cnum	Test if account number <b>does not</b> matches customer's name	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  changed input file to test the "not match" account number  changed the trans file to correct transaction
08_paybill_validco mpany	Test is bill is being paid to a valid company - EC, CQ or TV	test case output file and transaction file missing informations  incorrect input did not check for condition	did not check the input company name equal to valid company	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added method to check the valid company
09_paybill_stdmax amt	Test if bill payment amount in current	test case output file and transaction file missing	did not check the amount is below \$2000	changed input file to test the intention

	session does not exceed \$2000.00 in standard mode	informations incorrect input did not check for condition		changed output file to reflect correct output  changed the trans file to correct transaction  added method to check the amout is below \$2000
10_paybill_post	Test is the account balance is at least \$0.00 after bill is paid	test case output file and transaction file missing informations incorrect input did not check for condition	did not check the account balance is at least \$0.00 after bill is paid	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added method to check the amount is at least \$0 after bill is paid
11_paybill_SP_tra nsaction_fee	Test if the paybill amount is balance + 5 cent in student plan. (If the balance is \$400.00, pay \$400 bill is rejected)	test case output file and transaction file missing informations incorrect input did not check for condition	did not check the account balance + \$0.05 in student plan	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  create a new method enoughTransactionFee() to check the balance

12_paybill_NP_tra nsacation_fee	Test if paybill amount is balance + 10 cent in non- student plan. (if the balance is \$400, pay \$400 bill is rejected)	test case output file and transaction file missing informations incorrect input did not check for condition	did not check the account balance + \$0.10 in non student plan	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  used the new method enoughTransactionFee() to check the balance	
	deposit				
01_deposit_acchol dernameprompt	Test if session asks for account holder's name when logged in as admin	test case output file and transaction file missing informations incorrect input	wrong order of prompting	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  changed the order of asking information	
02_deposit_accnu mprompt	Test if session asks for account number	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  print out a message amount the deposit account number entered	

				changed the trans file to correct transaction
03_deposit_acc_n ame_num_match	Test if the session only allow account holder name and account number entered in admin mode matched. If not matched, the login should be rejected	test case output file and transaction file missing informations incorrect input did not check for condition	the valid account number setted initialize as true  did not check if the account name and number match or not	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  changed the initial value of valid account number to false  added method to check for matching account name and number
04_deposit_amt	Test if session asks for the amount to be deposited	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction
05_deposit_amtfor matvalid	Test if session only allow the amount format in ####.## where # is 0-9	test case output file and transaction file missing informations incorrect input did not check for condition	valid account number setted initialize as true did not check if the amount format in ####.## or not	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction

				changed the initial value of valid amount to false added method to check for matching account name and number
06_deposit_valida cc	Test if the account is valid for the account holder that is logged in	tested in 03_deposit_acc_name_n um_match	None	None
07_deposit_SP_tr ansaction_fee	Test if the deposit amount had - the transaction fee 5 cent in student plan. (If the deposit is \$400.00, the final deposit amount will be \$399.95)	test case output file and transaction file missing informations incorrect input did not check for condition	valid account number setted initialize as true did not check if the amount format in ####.## or not	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  create a new method minus Transaction Fee() to minus the transaction fee  included <iomanip> to convert float to string with precision  added method to make sure the amount after minus the transaction fee is created than 0</iomanip>
08_deposit_NP_tr ansaction_fee	Test if deposit amount had - the	test case output file and transaction file missing	valid account number setted initialize as true	changed input file to test the intention

	transaction fee 10 cent in non-student plan. (if the deposit is \$400, the final deposit amount will be \$399.90)	informations incorrect input did not check for condition	did not check if the amount format in ####.## or not	changed output file to reflect correct output changed the trans file to correct transaction
09_deposit_same_ day_usage	Test if the funds are not available for use in same day	Need to test with withdrawal	None	None
10_deposit_accept ed_amt	Test if deposit amount is divisible by 5, and reject request otherwise	test case output file and transaction file missing informations incorrect input did not check for condition	did not check if the amount is divisible or not	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  create a new method minusTransactionFee() to minus the transaction fee
		create		
01_create_valid_n ew_acc_name	Test if session asks for new account holder name, and truncates name if characters exceed 20	test case output file and transaction file missing informations incorrect input did not check condition	did not check if name exceed 20 characters	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction

				create a new method fixName() to truncates name if exceed 20 characters and fill in space if under 20 characters
02_create_initbal	Test if session asks for initial balance of account	test case output file and transaction file missing informations incorrect input did not ask for information	did not ask for initial balance	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  add code to ask for initial balance and store it
03_create_record_ transaction_file	Test if session successfully records new account information to bank account transaction file	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction
04_create_test_ad min_mode	Test if creation of account only accepted while logged in as admin	test case output file and transaction file missing informations incorrect input	None	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction

05_create_unique _account_num	Test if new account number does not already exist in Bank System database, and reject if exists	test case output file and transaction file missing informations incorrect input did not create information	ask for an account number instead of create a random number	changed input file to test the intention  there should be any cases that account number is already exist  changed output file to reflect correct output  changed the trans file to correct transaction  added code to create a random account number that is unique
06_create_max_a cc_bal	Test if creation of account is rejected if account balance is over \$99999.99	test case output file and transaction file missing informations incorrect input did not check condition	did not check if the initial amount is over \$99999.99 or not	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added method to check if the amount is over \$99999.99 or not  added method to check if the entered amount in this ####################################
07_create_end_se ssion	Test if account logged out after account creation and session restricts further transactions	test case output file and transaction file missing informations incorrect input		changed input file to test the intention (added login to newly create account after logout)  changed output file to reflect correct output

08_create_truncat e_long_acc_name	Test if account name is truncated if it is greater than 20 characters	already fixed in 01_create_valid_new_ac c_name  test case output file and transaction file missing informations incorrect input	None	changed the trans file to correct transaction  changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction
09_create_default _acc_type	Test if account type is set to non-student plan as default	test case output file and transaction file missing informations incorrect input did not set information	did not set account type to non-student plan	changed input file to test the intention  changed output file to reflect correct output  changed the trans file to correct transaction  added code to set the account type to non-student
		delete		
01_delete_admin_ mode	Test if the delete transaction is accepted when logged into admin mode and prompt for account name and number	input file, output file missing prompts and inputs	did not search bank accounts file for account name and number, to verify if it exists	changed input file to reflect changes changed output file to reflect changes added method to main code to search bank accounts file

02_delete_standar d_mode	Test if the delete transaction is rejected when logged into standard mode and doesn't prompt for account name and number	input file, output file missing prompts and inputs	none	fixed grammatical errors fixed grammatical errors
03_delete_valid	Test if the delete transaction is accepted when entered a valid holder's name in admin mode with valid account name and number and saved to bank account transaction file	input file, output file missing prompts and inputs  TransactionProcessing.c pp missing code	did not search bank accounts file for account name and number, to verify if it exists	changed input file to reflect changes  changed output file to reflect changes  added method to main code to search bank accounts file  fixed grammatical errors
04_delete_invalid_ name	Test if the delete transaction is rejected when entered an invalid holder's name in admin mode	input file, output file missing prompts and inputs	did not search bank accounts file for account name and number, to verify if it exists	changed input file to reflect changes changed output file to reflect changes added method to main code to search bank accounts file fixed grammatical errors
05_delete_invalid_ number	Test if the delete transaction is	input file, output file missing prompts and	did not search bank accounts file for	changed input file to reflect changes

	rejected when entered an invalid account number in admin mode	inputs	account name and number, to verify if it exists	changed output file to reflect changes added method to main code to search bank accounts file fixed grammatical errors
06_delete_further_ trans	Test if further transactions are not accepted on a deleted account	input file, output file missing prompts and inputs	none	fixed grammatical errors
07_delete_disable	Test if a disabled account can be deleted in admin mode and saved to bank account transaction file	input file, output file missing prompts and inputs	none	fixed grammatical errors
		disable		
01_disable_admin _mode	Test if the disable is accepted when logged into admin mode and prompt for account name and number	input file, code had wrong if condition statements	changed code to make use of new functions that verify if bank account holder and bank account number are valid  changed code when checking the condition of the account, success and failure were reversed	changed code and input file format

			changed code to correct grammar and keep variable names consistent	
02_disable_standa rd_mode	Test if the disable is rejected when logged into standard mode and doesn't prompt for account name and number	input file, output file	none	grammatical errors corrected in input file
03_disable_status _changed	Test if the status changed from active to disabled in admin mode with valid account name and number and saved to bank account transaction file	input file, output file	none	grammatical errors corrected in input file
04_disable_invalid _name	Test if the disable transaction is rejected when entered an invalid holder's name in admin mode	input file, output file	none	grammatical errors corrected in input file
05_disable_invalid _number	Test if the disable transaction is rejected when entered an invalid account number in admin mode	input file, output file	none	grammatical errors corrected in input file
06_disble_further_	Test if further	input file, output file	none	grammatical errors corrected in

trans	transactions are not accepted on a disabled account			input file
07_disable_disabled_account	Test if the disable transaction is rejected when entered an disabled account number in admin mode	input file, output file	none	grammatical errors corrected in input file
08_disable_recent _disabled_account	Test if further transaction are not accepted on a recent disabled account in same session.	input file, output file	none	grammatical errors corrected in input file
changeplan				
01_changeplan_a dmin_mode	Test if the changeplan transaction is accepted when logged into admin mode and prompt for account name and number	input file, output file and transaction file	code changed to produce correct transaction file, changed prompts in code to match expected outputs	changed input file to provide correct input to the system
02_changeplan_st andard_mode	Test if the changeplan transaction is rejected when logged into standard mode and doesn't prompt for account	input file, output file and transaction file	none	changed input file to provide correct input to the system

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	name and number			
03_changeplan_S P_to_NP	Test if session is successfully able to change plan from SP to SN and saved to bank account transaction file in admin mode	input file, output file	added if statement to detect non student and student account numbers	changed output file to reflect correct output
04_changeplan_N P_to_SP	Test if session is successfully able to change plan from NP to SP and saved to bank account transaction file admin mode	input file, output file, transaction file	none	changed input and output file to reflect correct output
05_changeplan_in valid_name	Test if the changeplan transaction is rejected when entered an invalid holder's name in admin mode	input file, code	implemented 2 new functions to search the bank accounts file to verify name	changed input file to reflect capitalization of input user
06_changeplan_in valid_number	Test if the changeplan transaction is rejected when entered an invalid account number in admin mode	input file	changed spacing of concatenating strings and variables	changed input file to reflect correct formatting
enable				

enable

01_enable_admin _mode	Test if enabling of account accepted while logged in as admin and prompt for account name and number	input file, code had wrong if condition statements	changed code to make use of the new functions that verify the bank account holder and bank account number are valid changed code when checking the condition of the account, success and failure were reversed changed code to correct grammar	changed code and input file format
02_enable_standa rd_mode	Test if enabling of account rejected while logged in as standard user and doesn't prompt for account name and number	input file	none	input file changed with capital account holder names
03_enable_status_ changed	Test if session successfully changes account from disabled (D) to active (A) with valid account name and number and saved to bank account transaction file	input file	none	input file changed with capital account holder names
04_enable_invalid _name	Test if the enable transaction is	input file	changed to reflect correct spacing when	input file changed with capital account holder names

	rejected when entered an invalid holder's name in admin mode		concatenating strings	
05_enable_invalid _number	Test if the enable transaction is rejected when entered an invalid account number in admin mode	input file	changed to reflect correct spacing when concatenating strings	input file changed with capital account holder names
06_enable_enable d_account	Test if the enable transaction is rejected when enable an enabled account in admin mode.	input file		input file changed with capital account holder names