

CISC 327 - Assignment #1

PGGM inc.

Test Plan

We will group the tests according to its individual functions (login, logout, withdraw, etc.) in folders. In each folder there will be one python script that runs all the tests in that folder as well as a master script that runs all the folder scripts. This way you're able to run tests for each functionality individually while still being able to run a test of the entire front-end at once. Each individual test will perform the outlined test case, analyze if the output matches the intended output, and produce a file with all the outputs from the test. These timestamped results will be stored in a folder within the folder containing the test for future comparisons. The tests will be validated automatically and if the output is as expected, a "success" will be printed after the test name on the console (vice versa with a failed test).

Example Test Program Structure:

master_test.py

Login

loginTests.py

test1.py

test2.py

Results

2019-10-04_16:01:45.txt

Logout

logoutTests.py

test1.py

test2.py

Results

2019-10-04_16:01:48.txt

Createacct

createacctTests.py

test1.py

test2.py

test3.py

test4.py

test5.py

Results

2019-10-04_16:01:49.txt

[Continued on for the rest of the functions]

Where a test.py exists for each individual requirement.

Test Cases

Requirement	Test No	Test Name	Purpose	Input	Input Files	Output	Output Files
No transactions before login.	R1T1	Idle logout	Can't logout before logging in	logout	None	Error prompt for user to login	None
	R1T2	Idle deposit	Can't deposit before logging in	deposit	None	Error prompt for user to login	None
	R1T3	Idle createacct	Can't create account before logging in	createacct	None	Error prompt for user login	None
	R1T4	Idle deleteacct	Can't delete an account before logging in	deleteacct	None	Error prompt for user login	None
	R1T5	Idle withdraw	Can't withdraw from account before logging in	withdraw	None	Error prompt for user to login	None

	R1T6	Idle transfer	Can't transfer before logging in	transfer	None	Error prompt for user to login	None
Accounts List File	R2T1	Line length more than 7	Each line is not more than 7 characters	login	LineMore Than7.txt	Error prompt indicating invalid accounts list file: account number too long	None
	R2T2	Line length less than 7	Each line is not less than 7 characters	login	LineLess Than7.txt	Error prompt indicating invalid accounts list file: account number too short	None
	R2T3	Only numbers	Each line contains only numbers	login	NotOnly Numbers.txt	Error prompt indicating invalid accounts list file: account number containing non-numerical values	None
	R2T4	Not starting with zero	Account numbers don't start with zero	login	Starting WithZero.txt	Error prompt indicating invalid accounts list file: account	None

						number starting with zero	
	R2T5	Special account number	Make sure file ends with special end of file account number "0000000"	login	WrongEndingAccount.txt	Error prompt indicating invalid accounts list file: incorrect special end of file account number	None
Login	R3T1	Successful login	Test initial login	login	None	Prompts user to enter ATM or Agent mode	None
	R3T2	Correctly choosing ATM mode	Test validity of user input when selecting ATM mode	machine	Choosing Mode.txt	None	
	R3T3	Correctly choosing Agent mode	Test validity of user input when selecting Agent mode	agent	Choosing Mode.txt	None	None
	R3T4	Choose Mode: number	Test validity of user input when selecting mode	123	Choosing Mode.txt	Error prompt for user to try again with a valid input	None
	R3T5	Choose Mode: empty	Test validity of user input when selecting mode	" "	Choosing Mode.txt	Error prompt for user to try again with a valid input	None

	R3T6	Choose Mode: wrong word	Test validity of user input when selecting mode	wrongword	Choosing Mode.txt	Error prompt for user to try again with a valid input	None
Valid commands in ATM mode	R4T1	Create account in ATM mode	Reject createacct command when in ATM mode	createacct	Machine Mode.txt	Error prompt for user to try another valid command	None
	R4T2	Delete account in ATM mode	Reject deleteacct command when in ATM mode	deleteacct	Machine Mode.txt	Error prompt for user to try another valid command	None
Login then Logout	R5T1	Print empty summary file	Make sure file is empty if no transactions have been performed that day	logout	Choosing Mode.txt	None	EmptySummary.txt

Createacct

Must be in agent mode to create an account.	R6T1	Machine Mode Create Account	Cannot create while in machine mode.	createacct	T1_input1.txt	Error inform user that accounts cannot be created in machine mode.	None
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Account number is exactly 7 digits and cannot start with 0	R7T1	Account Num Start With 0	Cannot start account number with 0	01111111	T2_input1.txt	Error inform user that accounts cannot be identified with a lead zero.	None
	R7T2	Account Num Less Than 7	Cannot have an account number smaller than 7	123456	T2_input1.txt	Error inform user that accounts cannot be identified with less than seven digits.	None
	R7T3	Account Num Greater Than 7	Cannot have an account number greater than 7	12345678	T2_input1.txt	Error inform user that accounts cannot be identified with more than seven digits.	None
New account name is between 3 and 30 alphanumeric characters, that can	R8T1	Account Name Less Than 3	Cannot have an account name that is	aa	T3_input1.txt	Error inform users that accounts cannot be	None

include (but not start or end with a space).			smaller than 3 characters			designated with a name less than three characters in length.	
	R8T2	Account Name Greater Than 30	Cannot have an account name that is greater than 30 characters	abcdefghijklmnopqrstuvwxy zabcde	T3_input1.txt	Error inform users that accounts cannot be designated with a name greater than thirty characters in length.	None
	R8T3	Account Name Non-Alphanumeric	Cannot have an account name that contains a non-alphanumeric character	Alan+	T3_input1.txt	Error inform users that accounts cannot be designated to include a non-alphanumeric character.	None

	R8T4	Account Name Start Space	Cannot have a space as the first character	Alan	T3_input1.txt	Error inform users that accounts cannot be designated to start with a space character	None
	R8T5	Account Name End Space	Cannot have a space as the last character	Alan	T3_input1.txt	Error inform users that accounts cannot be designated to end with a space character	None
	R8T6	Account Number Taken	Cannot have an account number that is already in use	1234567	T3_input2.txt	Error inform users that accounts cannot be designated with a number that is already in use.	None

Creates a new account successfully	R9T1	Success	Creates a new account successfully	logout	T4_input1.txt	Session Terminated	Create_Output.txt
Check “transaction summary file”	R10T1	Summary File Check	Check to make sure the Transaction Summary File was created up to standard	Create_Output.txt	None	Should contain: NEW 1234567 000 0000000 test EOS 0000000 000 0000000 ***	None

Deleteacct

Must be in agent mode	R11T1	Machine Mode Delete	Cannot delete an account while in machine mode	deleteacct	R11_input1.txt R11_VAL.txt	Error inform users that accounts cannot be	None
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		Account				deleted in machine mode.	
Should ask for valid account number and account name	R12T1	Ask for number	After indicated that user wishes to delete account, ask for account number.	deleteacct	R12_input1.txt R12_VAL.txt	Enter account number:	None
	R12T2	Ensure number is valid	Cannot delete an account that doesn't exist	1111111	R12_input2.txt R12_VAL.txt	Error inform user that to delete an account requires a valid account number	None
	R12T3	Ask for name	After valid number has been entered	1234567	R12_input2.txt R12_VAL.txt	Enter account name:	None

	R12T4	Return to main screen	After name has been input, return to main terminal	Test	R12_input3.txt R12_VAL.txt	Account deleted.	None
If valid number has been inputted during deletion process, after logout should return a transaction summary that includes deletion.	R13T1	Success	Successfully deleted account	logout	R13_input1.txt R13_VAL.txt	Session Terminated	Delete_Output.txt
Check "transaction summary file"	R14T1	Summary File Check	Check to make sure the Transaction Summary File was created up to standard	Delete_Output.txt	None	Should contain: DEL 1234567 000 0000000 *** EOS 0000000 000 0000000 ***	None

Withdraw

Requirement	Test No	Test Name	Purpose	Input	Input Files	Output	Output Files
Maximum withdrawal amounts	R15T1	ATM highWithdraw	Reject withdrawals above \$1000 while in ATM mode	\$1500 ATM Mode	w1.txt	Maximum withdraw surpassed error	None
	R15T2	Agent highWithdraw	Reject withdrawals above \$999999.99 while in Agent mode	\$10000000 agent Mode	w2.txt	Maximum withdraw surpassed error	None
	R15T3	ATM dailyWithdraw	Reject withdraws that have surpassed \$5000 for a single account in a single day, in ATM mode	\$4000 withdrawal and previous \$1500	w3.txt	Maximum daily withdraw surpassed error	None
Withdraw from from an account	R16T1	withdraw	Check a user is able to withdraw money	withdraw	w1.txt	Withdraw accepted	None
Ask/Check account information	R17T1	Input accountNumber	Check the user is asked for a specific accountNumber	1234567 (existing account number)	w1.txt	1234567	None
	R17T2	Input	Check the user is	\$2000	w1.txt	\$2000	None

		withdrawalAmount	asked for a specific amount				
	R17T3	Correct specifications	Check the correct amount is being withdrawn from the correct account	\$500 and 1234567	w4.txt	\$500 withdrawn from 1234567	Transaction Summary
	R17T4	Transaction SummaryCheck	Check the transaction is displaying the correct information	\$500 and 1234567 and transactionSummary	w4.txt	Transaction summary correct	None
	R17T5	Check accountNumberValid	Check that the account exists	12345678 (non existing account number)	w1.txt	Account number not valid	None
	R17T6	Check amountValid	Check that the amount exists in the specified account	\$500 (no deposit)	w5.txt	Amount not valid for specified account	None

Transfer

Requirement	Test No	Test Name	Purpose	Input	Input Files	Output	Output Files
Maximum withdrawal amounts	R18T1	ATM highTransfer	Reject transfers above \$10000 in ATM mode	\$15000 (ATM mode)	t1.txt	Transfer exceeding ATM limit error	None

	R18T2	Agent highTransfer	Reject transfers above \$999999.99 in Agent mode	\$1000000 (Agent mode)	t2.txt	Transfer exceeding Agent limit error	None
	R18T3	Daily transferLimit	Reject transfers that have exceeded \$10000 in a single day from a single account	\$9000 transfer and previous \$1500 withdrawal	t3.txt	Daily Transfer exceeded limit error	None
Transfer Functioning	R19T1	Check Transfer	Check if a user is able to transfer money from one account to another	transfer	t1.txt	Transfer accepted	None
Ask/Check account information	R20T1	Input accountNumber	Check the user is asked for a specific accountNumber	1234567	t1.txt	1234567	None
	R20T2	Input receivingAccount	Check the user is asked for a specific receiving accountNumber	7654321	t1.txt	7654321	None
	R20T3	Input withdrawalAmount	Check the user is asked for a specific transfer amount	\$500	t1.txt	500	None
	R20T4	Correct	Check the	\$500 and	t4.txt	Amount \$500	Transaction

		specifications	correct amount is being withdrawn from the correct account and being transferred to the correct person	1234567 and 7654321		transferred from 1234567 to 7654321	Summary
	R20T5	Transaction SummaryCheck	Check the transaction is displaying the correct information	\$500 and 1234567 and transactionSummary	t4.txt	Transaction summary correct	None
	R20T6	Check transferAccountNumber	Check that the transferring account exists	12345678	t1.txt	Account number not valid	None
	R20T7	Check receivingAccountNumber	Check that the receiving account exists	76543210	t1.txt	Account number not valid	None
	R20T8	Check amountValid	Check that the amount exists in the specified account	\$500	t5.txt	Amount not valid for specified account	None

Deposit

Requirement	Test No	Test Name	Purpose	Input	Input Files	Output	Output Files
Valid Account Number	R21T1	Check AccountNo	Verify banking account exists	1234567	Deposit_Test_ATM.txt Or Deposit_Test_Agent.txt	Account is valid	None
	R21T2			7654321	Deposit_Test_ATM.txt Or Deposit_Test_Agent.txt	Invalid Account error	None
Valid deposit amount	R22T1	Check Deposit Validity	Verify deposit amount	1	Deposit_Test_ATM.txt Or Deposit_Test_Agent.txt	Deposit Amount Approved	None
	R22T2			0 or abc	Deposit_Test_ATM.txt Or Deposit_Test_Agent.txt	Invalid Deposit Amount Error	None
No deposits above	R23T1	ATM HighDeposit	Check deposit		Deposit_Test.	Maximum	None

\$2000 in ATM Mode			amount and mode	200001	txt	Deposit Error	
	R23T2	ATM LowDeposit		200000	Deposit_Test_ATM.txt	Deposit Approved	None
No deposits above \$999,999.99 in Agent Mode	R24T1	Agent HighDeposit	Check deposit amount and mode	100000000	Deposit_Test_Agent.txt	Maximum Deposit Error	None
	R24T2	Agent LowDeposit		99999999	Deposit_Test_Agent.txt	Deposit Approved	None
No daily deposits above \$5000 in ATM Mode	R25T1	Check DailyDeposit	Check the total amount deposited in the day and mode	500001	Deposit_Test_ATM.txt	Daily Deposit Error	None
	R25T2			500000	Deposit_Test_ATM.txt	Deposit Approved	None
No limit on deposits in Agent mode	R26T1	Check Agent Deposits	Check total amount deposited in the day	10000000000000000000	Deposit_Test_Agent.txt	Deposit Approved	None