

# CISC327- Assignment 1

## Front End Testing Requirements and Plan

### **Group 57 - Loaft Inc.**

Samir Mekhdi 10191295

Jessica Wong 10181646

Luvit Chumber 10190467

Tayyab Ahmad 10197212

## Test Plan

Our test plan will consist of separating the individual functions/units of the front-end into different folders. For subfolder, the tests will be separated by requirements, where they will be tested individually using input test cases via shell files. The outputs of these tests will be stored in corresponding log files within its respective function folder which can be used for generating reports/comparisons.

We will validate the outputs of our tests by comparing them to the expected output (or lack thereof). This allows us to automatically run tests and to efficiently ensure that the software fulfills the intended requirements. Automatically validating test output by comparison works best when the requirements tests are robust and planned well. Below are the requirements for this software broken down into units of functionality, and our outline of how to test them.

## login

Requirements	Test No.	Test Name	Purpose	Input	Input Files	Output	Output Files
No transactions before logins	R1T1	idle logout	Can't logout without logging in	<i>logout</i>	None	<i>Error, must login before performing action</i>	None
	R1T2	idle createacct	Can't create an account without logging in	<i>createacct</i>	None	<i>Error, must login before performing action</i>	None
	R1T3	idle deleteacct	Can't delete account without logging on	<i>deleteacct</i>	None	<i>Error, must login before performing action</i>	None
	R1T4	idle deposit	Can't deposit without logging in	<i>deposit</i>	None	<i>Error, must login before performing action</i>	None
	R1T5	idle withdraw	Can't withdraw without logging in	<i>withdraw</i>	None	<i>Error, must login before performing action</i>	None
	R1T6	idle transfer	Can't transfer without logging in	<i>transfer</i>	None	<i>Error, must login before performing action</i>	None
Agent login	R2T1	Agent Login	Choose agent login	<i>login agent</i>	Valid_accts.txt	<i>Successful login with the Agent</i>	None
ATM login	R3T1	ATM login	Choose machine login	<i>login machine</i>	Valid_accts.txt	Successful login on the machine	None
Can't login if logged in	R4T1	login after login	Can't login if already logged in	<i>Login(sessionType)</i>	None	<i>Error, logout before logging into another account</i>	None

## logout

Requirements	Test No.	Test Name	Purpose	Input	Input Files	Output	Output Files
Can only logout if already logged in	R1T1	Logged in-logout	Successfully logout of current session	<i>logout</i>	<i>none</i>	<i>Logout successful message, return to login page</i>	Transaction Summary File
	R1T2	Logged out-logout	Cannot logout if already logged out	<i>logout</i>	<i>none</i>	<i>Error prompt for the user to log in</i>	none
Generate Transaction Summary File on Logout	R2T1	TSF Generation	Successfully generate the TSF file on logout	<i>logout</i>	<i>none</i>	<i>TSF File generated</i>	Transaction Summary File
Validate Transaction Summary File	R3T1	TSF Detail Validity	Verify that TSF corresponds correctly to the session activities	<i>logout</i>	<i>TSF</i>	<i>TSF File incorrect</i>	none
	R3T2	Transaction Code	First 3 characters of message line should be DEP, WDR, XFR, NEW, DEL, or EOS	<i>logout</i>	<i>TSF</i>	<i>Transaction Code error</i>	none
	R3T3	Transaction Line	Each line should be at most 61 characters +newline	<i>logout</i>	<i>TSF</i>	<i>Transaction Lines error</i>	none
	R3T4	Item Separation	Items should be separated by a single space	<i>logout</i>	<i>TSF</i>	<i>Item Spacing error</i>	none
	R3T5	Account Number	Account numbers must be 7 decimal digits not starting with 0	<i>logout</i>	<i>TSF</i>	<i>Invalid Account Number</i>	none
	R3T6	Money Validation	Monetary amounts are between 3-8 decimal digits	<i>logout</i>	<i>TSF</i>	<i>Invalid Monetary Amount</i>	none
	R3T7	Account Name	Account names between 3-30 alphanumeric characters, no spaces in beginning or end	<i>logout</i>	<i>TSF</i>	<i>Invalid Account Name</i>	none
	R3T8	Numeric Blanks	Unused numeric fields must be filled with zeros	<i>logout</i>	<i>TSF</i>	<i>Invalid Numeric Field</i>	none
	R3T9	Name Blanks	Unused name fields filled with 3 asterisks ***	<i>logout</i>	<i>TSF</i>	<i>Invalid Text Field</i>	none
	R3T10	End of Session	Set of transactions ends with EOS transaction code	<i>logout</i>	<i>TSF</i>	<i>Invalid Transaction Set</i>	none

## createacct

Requirements	Test No.	Test Name	Purpose	Input	Input Files	Output	Output Files
Valid account information	R1T1	Account # format check	Check that new account # is 7 digits long and does not start with a 0	createacct(accountNum)	none	<i>invalid account number: must be 7 digits long and cannot begin with a 0</i>	none
	R1T2	Account # validation	Check that new account # is different from all other account numbers	createacct(accountNum)	none	<i>invalid account number: this number is already in use</i>	none
	R1T3	Account name validation	Check that new account name is between 3 and 30 alphanumeric characters	createacct(accountName)	none	<i>invalid account name: must be between 3-30 <b>alphanumeric</b> characters</i>	none
	R1T4	Account name format check	Check that new account name does not start or end with a space	createacct(accountName)	none	<i>invalid account name: cannot begin or end with a space</i>	none
Save to Transaction Summary File	R2T1	Save to TSF	Ensure that the new account was saved to TSF for logging purposes	createacct	TSF	<i>Saved to TSF</i>	Add to TSF
Confirmation	R3T1	Confirm account creation	Confirm to the user that the account was created	result	none	<i>Account was created successfully</i>	none
Can't create account on ATM	R3T1	ATM create account	Can't create an account on ATM	sessionType	none	<i>Error, see teller</i>	None

## deleteacct

Requirements	Test No.	Test Name	Purpose	Input	Input Files	Output	Output Files
User must be in agent mode to delete account	R2T1	Deleting while in agent mode	Ensure that the account is being deleted while in agent mode	deleteacct(sessionType )	none	<i>Error: must be in agent mode to delete an account</i>	none
Valid account information for deletion	R1T1	Valid account information	Ensure that the account number to be deleted exists	deleteacct(accountNum )	Accounts file	<i>Invalid account number: account does not exist</i>	none
No further transactions on a deleted account	R4T1	No deposits on deleted account	Cannot make a deposit on a deleted account	deposit	none	<i>Error: cannot deposit into a deleted account</i>	none
	R4T2	No withdrawals on deleted account	Cannot make a withdrawal from a deleted account	withdraw	none	<i>Error: cannot withdraw from a deleted account</i>	none
	R4T3	No transfers with deleted account	Cannot make a transfer to or from a deleted account	transfer	none	<i>Error: cannot transfer to or from a deleted account</i>	none
Save information in TSF	R3T1	Save to TSF	Ensure that the name and number of the deleted account was saved in Transaction Summary File	deleteacct(accountNum , accountName)	TSF	<i>Saved to TSF</i>	Add to TSF
Confirmation	R5T1	Confirm account deletion	Confirm to the user that the account was deleted	result	none	<i>Account was deleted successfully</i>	none
Can't delete account on ATM	R6T1	ATM delete account	Can't delete account on ATM	sessionType	None	<i>Error, see teller</i>	None

## deposit

Requirements	Test No.	Test Name	Purpose	Input	Input Files	Output	Output Files
User Prompt for Deposit Details	R1T1	Deposit Prompt	Ensure the user is prompted to input the deposit information upon selecting deposit	<i>deposit</i>	<i>none</i>	<i>account number, amount (text lines)</i>	none
Validate Deposit Account	R2T1	Account Input Validation	Ensure the user inputs 7 digits not starting with 0 as the account number	<i>account number</i>	<i>none</i>	<i>Invalid account number format</i>	none
	R2T2	DoesAccountExist	Check the user-inputted account number with the valid accounts list file to ensure it exists	<i>account number</i>	<i>valid accounts list</i>	<i>error prompt indicating the account number does not exist</i>	none
Validate Deposit Amount	R3T1	Amount Input Validation	Ensure the user inputs 3-8 decimal digits into the amount field	<i>amount</i>	<i>none</i>	<i>error prompt indicating invalid deposit input</i>	none
	R3T2	ATM Transaction Limit	If in ATM mode, reject transactions greater than \$2000	<i>sessionType</i>	<i>none</i>	<i>error prompt indicating \$2000 limit</i>	none
	R3T3	ATM Daily Limit	If in ATM mode, reject transactions if total transactions on the current account exceed \$5000	<i>sessionType</i>	<i>none</i>	<i>error prompt indicating exceeding daily \$5000 limit</i>	none
	R3T4	Agent Transaction	If in Agent mode, no transaction limits	<i>sessionType</i>	<i>none</i>	<i>approved</i>	none
Store Transaction in TSF	R4T1	TSF-Add	After a successful transaction, add the transaction details to the TSF file	<i>none</i>	<i>TSF File</i>	Transaction added to TSF file	TSF File

## withdraw

Requirements	Test No.	Test Name	Purpose	Input	Input Files	Output	Output Files
Test Withdrawal - ATM	R1T1	Normal Withdrawal	Test withdrawals works	withdraw	NA	Withdraw \$100	Add to TSF
	R1T2	withdraw more than account balance	Stop withdrawals with insufficient funds	withdraw	NA	Error: Insufficient Funds	NA
	R1T3	Incorrect Account	Make sure withdraw only pulls from active accounts	withdraw	NA	Error: Incorrect Account	NA
	R1T4	Extra withdrawal	Make sure only can withdraw \$1000 from ATM	withdraw	NA	Error: Reached ATM Limit	NA
Test total withdrawal - ATM	R2T1	Transaction 1	Lower daily total available	withdraw	NA	Withdraw \$1,000	Add to TSF
	R2T2	Transaction 2	Lower daily total available	withdraw	NA	Withdraw \$1,000	Add to TSF
	R2T3	Transaction 3	Lower daily total available	withdraw	NA	Withdraw \$1,000	Add to TSF
	R2T4	Transaction 4	Lower daily total available	withdraw	NA	Withdraw \$1,000	Add to TSF
	R2T5	Transaction 5	Lower daily total available	withdraw	NA	Withdraw \$1,000	Add to TSF
	R2T6	Over total limit	Go past daily total available	withdraw	NA	Error: Reached ATM Daily Limit	NA
Test Withdrawal - Agent	R3T1	Normal Withdrawal	Test withdrawals works	withdraw	NA	Success	Add to TSF
	R3T2	withdraw more than account balance	Stop withdrawals with insufficient funds	withdraw	NA	Error: Insufficient Funds	NA
	R3T3	Incorrect Account	Make sure withdraw only pulls from active accounts	withdraw	NA	Error: Incorrect Account	NA
	R3T4	Extra withdrawal	Make sure only can withdraw \$999,999.99 from Agent	withdraw	NA	Error: Reached Max Withdrawl Limit	
Test total withdrawal - Agent	R4T1	Transaction 1	Test no total limit in Agent mode	withdraw	NA	Withdraw \$1,000	Add to TSF
	R4T2	Transaction 2	Test no total limit in Agent mode	withdraw	NA	Withdraw \$1,000	Add to TSF
	R4T3	Transaction 3	Test no total limit in Agent mode	withdraw	NA	Withdraw \$1,000	Add to TSF
	R4T4	Transaction 4	Test no total limit in Agent mode	withdraw	NA	Withdraw \$1,000	Add to TSF
	R4T5	Transaction 5	Test no total limit in Agent mode	withdraw	NA	Withdraw \$1,000	Add to TSF
	R4T6	Transaction 6	Test no total limit in Agent mode	withdraw	NA	Withdraw \$10	Add to TSF



## transfer

Requirements	Test No.	Test Name	Purpose	Input	Input Files	Output	Output Files
Test Transfer - ATM	R1T1	Normal transfer	Test transfer works	transfer	NA	Transfer \$100	Add to TSF
	R1T2	Transfer more than account balance	Stop transfers with insufficient funds	transfer	NA	Error: Insufficient Funds	NA
	R1T3	Incorrect account	Make sure transfer only pulls from and to active accounts	transfer	NA	Error: Incorrect Account	NA
	R1T4	Extra transfer	Make sure only can transfer \$10,000 from ATM	transfer	NA	Error: Reached ATM Limit	NA
Test Total Transfer-ATM	R2T1	Transaction 1	Lower daily total available	transfer	NA	Transfer \$10,000	Add to TSF
	R2T2	Over total limit	Go past daily total available	transfer	NA	Error: Reached ATM Daily Limit	NA
Test Transfer - Agent	R3T1	Normal transfer	Test transfer works	transfer	NA	Transfer \$100	Add to TSF
	R3T2	Transfer more than account balance	Stop transfer with insufficient funds	transfer	NA	Error: Insufficient Funds	NA
	R3T3	Incorrect account	Make sure transfer only pulls from active accounts	transfer	NA	Error: Incorrect Account	NA
	R3T4	Extra transfer	Make sure only can transfer \$999,999.99 from Agent	transfer	NA	Error: Reached Max Transfer Limit	NA
Test Total Transfer-Agent	R2T1	Transaction 1	Test no total limit in Agent mode	transfer	NA	Transfer \$10,000	Add to TSF
	R2T2	Transaction 2	Test no total limit in Agent mode	transfer	NA	Transfer \$10,000	Add to TSF