Assignment #2

Group 42

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The main.py file

This is the primary file that is run by the user to start the program. The main file contains the logic for listening to user input and logging the user in and out. Once the user is logged in, it will take user input and make the correct calls to functions in other files for features like create account, delete account, deposit, withdraw, and transfer.

Method	Inputs	Outputs	Description
controller	user_input	"Account successfully created" Or "Account successfully deleted" Or "Successful deposit" Or "That is not a recognized command"	Takes user input and calls the correct function
login	Command line input of user	"You are already logged in" Or "logged in successfully" Or "could not log in"	Takes the session type of the user and logs them in
validateLogin	input	True Or "That is not an option" and False	Checks if the session type input from the user is valid
logout	Command line input of user	"Successfully logged out"	Logs out the user and writes an EOS statement to the transaction summary file
loop	Command line input of user	"Welcome to Quinterac!" and "command: "	Takes the user input to be used by controller

The transaction_summary.py file

The transaction_summary.py file is responsible for the manipulation of the transaction_summary.txt file. It contains the logic for creating a transaction entry, which envokes a constructor and writing transactions to the transaction summary file.

Method	Inputs	Outputs	Description
__init__	self, transaction_code, account_number_to, amount, account_number_from, account_name		Constructor for a transaction summary file line
create_transaction_line	self	transaction	Returns the transaction information formatted for the transaction summary file
writeTransactionSummaryFile	transaction_list		Writes the list of transactions to the transaction summary file

The account.py file

The account.py file contains logic to support the creation and deletion of accounts. When the functions in the file are invoked by the main.py file, a transaction object will be created if the inputs are valid.

Method	Inputs	Outputs	Description
createAccount	Command line input of user	"Invalid account number" and False Or "Invalid account name" and False Or Transaction summary for an account creation	Checks if the session type is valid then asks for an account number. If the account number is valid a new account is created
deleteAccount	Command line input of user for account number and name to be deleted	"Invalid account number" And false Or "Invalid account name" And false Or Transaction entry for account deletion	Takes the account info for the account to be deleted then creates a transaction entry for deletion of an account

The validate.py file

The validate.py file contains supporting logic for validating user input of account numbers, names, deposit, withdraw and transfer amounts. The functions return true or false when called by other functions to confirm that the input of the user is correct.

Method	Inputs	Outputs	Description
validateAccountNumber	account_num	Dict object or False	Validates the account number given by the user
validateAccountName	account_name	Dict object or False	Validates the account name given by the user
validateDepositAmount	amount account_num Mode daily_limits	Dict object or False	Checks that the amount trying to be deposited is valid
validateWithdrawAmount	amount account_num Mode daily_limits	Dict object or False	Checks that the amount trying to be withdrawn is valid
validateTransferAmount	amount account_num Mode daily_limits	Dict object or False	Checks that the amount trying to be transferred is valid

The features.py file

The features.py file contains the primary logic for making deposits, withdrawals, and transfers. It is invoked by the main.py file when a user wants to use these pieces of functionality and gets support from functions in the validate.py file.

Method	Inputs	Outputs	Description
deposit	Mode deposits	"Invalid account number" and False Or "Invalid account name" and False Or Transaction summary file entry for deposit and the new daily deposits dict	Takes the mode of operation and deposit history and makes a deposit by returning an entry in the transaction summary file and also the updated daily deposits
withdraw	Mode withdrawls	"Invalid account number" and False Or "Invalid withdraw amount" and False Or Transaction file entry for withdraw and the new daily withdrawal dict	Takes the mode of operation and withdrawl history and makes a withdrawl by returning an entry in the transaction summary file and also the updated daily withdrawals
transfer	Mode transfers	"Invalid account number" and False Or "Invalid transfer amount" and False Or Transaction file entry for withdraw and the new daily transfers dict	Takes the mode of operation and transfer history and makes a transfer by returning an entry in the transaction summary file and also the updated daily transfers