**Description of the Intention of Each Method and Class**

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| **Method or Class Name** | **In Class** | **Intention** | **File Input/Output** |
| Class Account | ... | Stores all account information. |  |
| Class Transaction | ... | Stores all information about a transaction. |  |
| Class TransactionType | ... | References transaction codes used in transaction files |  |
| Class FileParser | ... | Parse the files and puts them into data structures to easily manipulate them. Concatenates multiple transaction files into one and puts it into a list. | concat.txt: out |
| Map<String, ArrayList<Account>> parseMaster(String masterFile) | FileParser | Read in master accounts file, parses it and return the accounts in the file as a map with the account holder's name as a string and an arraylist of accounts (with the account information for each) as the value. | masterFile parameter *(see Backend)* |
| void concatTrans(List<String> transFiles) | FileParser | Create one transaction file by combining existing transaction files by reading them in and putting their contents inside a new file concat.txt. | TransFiles parameter *(see Backend)* |
| List<Transaction> parseTrans | FileParser | Read in a list of transactions from the file that concatTrans creates, parses the transactions and returns them as a list of transactions. | concat.txt: out *(see FileParser class)* |
| Class FileUpdater | ... | Takes the data structure (name->their accounts) that has had the transactions applied to it and writes the new master accounts' file. | newMaster.txt: out  newCurr.txt: out |
| void fileWriter(Map<String, ArrayList<Account>> accounts) | FileUpdater | Loops through the data structure (name->their accounts) and writes all of the accounts to a "newMaster.txt" file using the createAccount helper function | newMaster.txt: out *(see FileUpdater class)* |
| String createAccount(String name, int num, boolean stat, double bal, int trans, boolean plan) | FileUpdater | A helper function for the fileWriter which formats a string (the account) to be written to a file | newCurr.txt: out *(see FileUpdater class)* |
| Class TransactionCalculator | ... | Handles and applies transactions to the specified accounts. |  |
| void setAccountTable(Map<String, ArrayList<Account>> account\_table) | TransactionCalculator | Gives known accounts to the calculator for reference. |  |
| Map<String, ArrayList<Account>> getAccountTable() | TransactionCalculator | Retrieves account map with all of accounts in it. |  |
| void applyTransactions(Vector<Transaction> transactions) | TransactionCalculator | Selected the appropriate transaction handler for the selected transaction. |  |
| Account getAccount(Transaction transaction) | TransactionCalculator | Searches for account in the bank system by looking for the holder's name and then account number |  |
| double getTransactionFee(Account account) | TransactionCalculator | Based on the type of account the transaction is being performed on give specified transaction fees. (admin/student/non-student) |  |
| boolean accountNumberExists(int number) | TransactionCalculator | Check if account number exist in the data structure of accounts. |  |
| void handleLogin(Vector<Transaction> transactions) | TransactionCalculator | Processes the 'login' transaction. |  |
| void handleLogout(Vector<Transaction> transactions) | TransactionCalculator | Processes the 'logout' transaction. |  |
| void handleWithdrawal(Vector<Transaction> transactions) | TransactionCalculator | Perform Withdrawal transaction to the specified account. |  |
| void handleTransfer(Vector<Transaction> transactions) | TransactionCalculator | Perform Transfer transaction to the specified accounts (sender and receiver). |  |
| void handlePaybill(Vector<Transaction> transactions) | TransactionCalculator | Perform Pay bill transaction to the specified account. |  |
| void handleDeposit(Vector<Transaction> transactions) | TransactionCalculator | Perform Deposit transaction to the specified account. |  |
| void handleChangePlan(Vector<Transaction> transactions) | TransactionCalculator | Perform Change Plan transaction to the specified account. |  |
| void handleDelete(Vector<Transaction> transactions) | TransactionCalculator | Remove the specified account from the account list. |  |
| void handleCreate(Vector<Transaction> transactions) | TransactionCalculator | Add new account the account list if the account number is not already in use. |  |
| void handleDisable(Vector<Transaction> transactions) | TransactionCalculator | If the account is not already disabled, disable the specified account. |  |
| void handleEnable(Vector<Transaction> transactions) | TransactionCalculator | If the account is not already enabled, enable the specified account. |  |
| Class Backend | ... | The class with the main method in it which will take in file inputs as arguments and execute all driver code to create a new current accounts file and a new master accounts file. | Master Accounts File: in  Transaction Files: in |
| static void main(String[] args) | Backend | The program will take a master accounts file and one or many transaction files and then create a new master accounts file with the transactions applied to it from the old master accounts file | Master Accounts File: in  Transaction Files:in  *(through args parameter)* |