

HW20: Bank Accounts: Stacks and Queues

Revise HW19 to add the following functionality:

1. The **Bank** class will now also contain a **private generic linked list queue of TransactionTickets**
The Bank class will contain public methods so as to allow one to enqueue and dequeue TransactionTicket objects
2. The **TransactionTicket** class will now have three additional data fields:
Account acct - to be used in the OpenNewAccount transaction
Check check - to be used in the ClearCheck transaction
String ssn - to be used in the Account Info and Account Info With Transaction History transactions.
3. **Modify any methods of all classes as deemed necessary.**

Program testing should proceed as for HW19 with these modifications:

At initialization, a neatly formatted table of the initial database of active accounts should be printed as follows:

- a) unsorted
- b) sorted by account number (using the `lSortedByAcctNum` object)
- c) sorted by SSN (using the `lSortedBySSN` object)
- d) sorted by Name (using the `lSortedByName` object)
- e) sorted by Balance (using the `lSortedByBalance` object)

After database initialization, all test case transactions should be read in, TransactionTicket objects created, and enqueued into the generic queue of TransactionTicket objects.

After all test case transactions have been enqueued, each TransactionTicket object should be dequeued and executed.

At the end, before the user quits, the program prints the contents of the final database as follows:

- a) unsorted
- b) sorted by account number (using the `lSortedByAcctNum` object)
- c) sorted by SSN (using the `lSortedBySSN` object)
- d) sorted by Name (using the `lSortedByName` object)
- e) sorted by Balance (using the `lSortedByBalance` object)

Submission Requirements:

Create a folder on Google Drive that will contain the following:

1. The source files (i.e., *.java files) for each of the implemented Classes:
pgmHW20.java
LinkedListAccounts.java; GenQueue.java
Bank.java; Account.java; Depositor.java; Name.java
SavingsAccount.java; CheckingAccount.java; CDAccount.java
Check.java; TransactionTicket.java; TransactionReceipt.java;
implemented Comparator Classes
implemented Exception Classes
etc.
 2. The text file containing the initial database of accounts (e.g., initAccounts.txt)
 3. The test cases text file (e.g., myTestCases.txt)
 4. The output text file which contains all of the required program output (e.g., pgmOutput.txt)
- Then, make the folder shareable and send me a link to the folder.