# Lines starting with # are comments.

# Comment lines and blank lines should not be “processed”.

# Any data in this format should be able to be processed and parsed, in any order, though the order of lines in the file implies what information exists when subsequent lines are processed.

# No data type errors will be included in my test file.

# HOWEVER, logical errors (dependency, etc.) \*will\* be included, and you will need to be able to handle such errors “gracefully”.

# General format of lines in Trx File:

# <TrxDate>; <TrxTime>; <TrxType>; <TrxAction>; [<TrxID>; <TrxLineID>]; <DataField>…>

# Note that the lines are semicolon-delimited, \*not\* comma-delimited, that the angle brackets are not part of the actual data, and that square brackets indicate optional information.

# <TrxType> and <TrxAction> may be any form of case: ALL UPPER, all lower, Or Any type of miXeD case…

# Format of “Create Customer” lines in Trx File:

# <TrxDate>; <TrxTime>; Customer; Create; <CustomerID>; <CustomerName>; <CustomerBDay>

20161104; 0800; Customer; Create; C1; Sam Smith; 19980815

20161104; 0800; Customer; Create; C2; Sally Jones; 20000101

20161104; 0800; Customer; Create; C3; Tim Alfonso; 20021225

20161104; 0800; Customer; Create; C4; Teresa Willaby; 20021201

# Format of “Open Account” lines in Trx File:

# <TrxDate>; <TrxTime>; Account; Open; <TrxID>; <TrxLineID>; <AccountID>; <AccountName>; <CustomerID>; <DateOpened>; [<InitialAmount>;] <InterestRate>

# <InitialAmount> is included for Checking and Loan types of accounts, but not for CreditCards.

# <InitialAmount> is non-negative (>=0) for Checking and Loan types of accounts; it is negative (<0) for CreditCard accounts.

# <CustomerID> indicates the “first” owner on the account. Additional owners may be added through the “Account AddOwner” process (see below).

20161104; 0900; Account; Open; Checking; T1; TL1; A1; Sam’s Checking; C1; 1000; 1.5

20161104; 0900; Account; Open; CreditCard; T2; TL2; A2; Sam’s Credit Card; C1; 20

20161104; 0900; Account; Open; Loan; T3; TL3; A3; Sam’s House Loan; C1; 100000; 3

20161104; 0900; Account; Open; Checking; T4; TL4; A4; Sam’s 2nd Checking; C1; 500; 0

20161104; 0900; Account; Open; Checking; T5; TL5; A5; Sally’s Checking; C2; 1500; .5

20161104; 0900; Account; Open; Checking; T6; TL6; A6; Tim’s Checking; C3; 2000; .1

20161104; 0900; Account; Open; Checking; T7; TL7; A7; Teresa’s Checking; C4; 100; 2

# Format of “Account; AddOwner” lines in Trx File:

# <TrxDate>; <TrxTime>; Account; AddOwner; <AccountID>; <CustomerID>

20161104; 0930; Account; AddOwner; A1; C2

20161104; 0930; Account; AddOwner; A2; C2

20161104; 0930; Account; AddOwner; A3; C2

# Format of “Single TrxLine” lines in Trx File:

# <TrxDate>; <TrxTime>; Customer; <TrxAction>; <TrxID>; <TrxLineID>; <CustomerID>; <AccountID>; <Amount>

20161104; 1000; Customer; MakeDeposit; T8; TL8; C1; A1; 500

20161104; 1000; Customer; MakeWithdrawal; T9; TL9; C1; A1; 250

20161104; 1000; Customer; UseDebitCard; T10; TL10; C1; A1; 25

20161104; 1000; Customer; ChargePurchase; T11; TL11; C1; A2; 75

# Format of “Double TrxLine” lines in Trx File:

# <TrxDate>; <TrxTime>; Customer; <TrxAction>; <TrxID>; <FromTrxLnID>; <ToTrxLnID>; <CustomerID>; <FromAccountID>; <ToAccountID>; <Amount>

20161104; 1100; Customer; TransferFunds; T12; TL12; T13; C1; A4; A1; 150

20161104; 1100; Customer; MakePayment; T13; TL14; T15; C1; A1; A2; 50

20161104; 1100; Customer; MakePayment; T14; TL16; TL17; C1; A1; A3; 1500

# Format of “Accrue Interest” lines in Trx File:

# <TrxDate>; <TrxTime>; Account; AccrueInterestIndividual; <TrxID>; <TrxLineID>; <AccountID>

# OR

# <TrxDate>; <TrxTime>; Account; AccrueInterestAll; <TrxIDPrefix>; <TrxIDStart>; <TrxLnIDPrefix>; <TrxLineIDStart>; <AccountID>

20161104; 1200; Account; AccrueInterestIndividual; T15; TL18; A1

20161104; 1200; Account; AccrueInterestIndividual; T16; TL19; A2

20161104; 1200; Account; AccrueInterestIndividual; T17; TL20; A3

20161104; 1200; Account; AccrueInterestAll; T; 18; TL; 21

# Format of “Account; UpdateName” lines in Trx File:

# <TrxDate>; <TrxTime>; Account; UpdateName; <AccountID>; <AccountName>

20161104; 1300; Account; UpdateName; A1; Samuel Smith’s Checking

# Format of “Account; Close” lines in Trx File:

# <TrxDate>; <TrxTime>; Account; Close; <AccountID>

20161104; 1300; Account; Close; A7

# Format of “Account; UpdateInterestRate” lines in Trx File:

# <TrxDate>; <TrxTime>; Account; UpdateInterestRate; <AccountID>; <InterestRate>

20161104; 1300; Account; UpdateInterestRate; A1; 2.0

# Add some more test data for the following conditions:

* Process customers other than “C1”.
* Person born on Feb 29, 2016, then check age on Feb 28 and Mar 1 in the next 2 years.
* Account created on Feb 29, 2016, and then test next interest accrual date for 13 months. Likewise for Account created on Jan 31 of 2016.
* Try creating customer with duplicate ID.
* Try creating accounts when customer ID does not exist.
* Try having non-existent customer ID perform all types of transactions.
* Try creating account with duplicate ID.
* Try creating all types of transactions with duplicate TrxID and/or TrxLineID.
* …
* … Maybe other scenarios as well …