08 – Homework

For this homework you will be:

* Creating a database in SQLite
* Inserting and Modifying records
* Testing constraints.

You will put your commands in a text file that we will do a .read on for grading.

#1 Using the schema below, write the necessary commands in SQLite to create tables for a banking system.

Put a constraint on the Account balance that it cannot go below 0.

#2 Create account types of:

|  |  |
| --- | --- |
| ID | Name |
| C | Checking |
| S | Savings |
| M | Money Market |
| BR | Brokerage |

#3 Create TXType of:

|  |
| --- |
| Description |
| Deposit |
| Withdrawal |
| Transfer In |
| Transfer Out |

#4 Create Four customers.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CustNumber | FirstName | MiddleName | LastName | Email |
| 100001 | Mary | Adams | Smith | [ma@gmail.com](mailto:ma@gmail.com) |
| 100002 | John | Quincy | Smith | jq@gmail.com |
| 100003 | Sam |  | Space | pi@gmail.com |
| 100004 | Mary | Adams | Smith | MAS@gmailo.com |

#5 Create the following accounts for your customers, all with a $0 balance.

Cust 100001 and 100002 – A shared checking account. Acct num A001

Cust 100002 A Checking account. Acct num A002

Cust 100001 A Brokerage account. Acct num A003

Cust 100003 A Money Market account. Acct num A004

Cust 100003 A Checking account. Acct num A005

Cust 100004 A Savings account Acct num A006

Cust 100004 A Checking account Acct num A007

#6 Create the following AcctTransactions. Note you will have to manually update the balance values in the account in order to make this work. Do this not by just doing the math in your head and updating with the new value, but by updating with the original value +/- the transaction value.

For transaction dates, put in ‘now’

Put a cash deposit of $1000 into each account ( A001, A002, A003, A004, A005, A006)

#7 Withdraw $500 from A002

#8 Transfer $300 from A002 to A001. This will require two transactions. One to debit A002 ( Transfer Out) , and one to credit A001 ( Transfer In)

#9 Test that your constraint is working on Balance by attempting to directly subtract $300 from Account A002. This should fail.

