**Tkinter ATM (Individual):**

**Due Dates:**

* Front End: April 14th
* Final: Cinco De Mayo

Take the tools we built in Unit 2 of the CSP curriculum and our Christmas drawings from semester 1 and build an ATM machine. Your ATM should be 100% operated in the GUI and none of it should be operated through the console. This means all user input is in the GUI.

* Customers must log in with their card number and pin to the machine before any transactions are made.
  + If the customer incorrectly enters their log in information 3 times in a row, shutdown the program.
* The database file is in Google Classroom, be sure to clean the data
* There are only six operations that the ATM can carry out:
  + Deposit
  + Withdrawal
  + Balance Inquiry
  + Transfer Balance
  + Change Pin
  + Log Out
* Customer can make up to a maximum of 3 transactions during 1 log in. This means any combination of depositing, withdrawing, or transferring.
* Each transaction cannot exceed $500 (withdraw or transfer)
* The program needs to update and display the customers balance of their accounts after any transaction. This means if the user withdraws money, you will need to display the current funds. You’ll also need to update the database after any transactions.
* The customer is not allowed to overdraft either of the accounts.
  + Notify the user if there is an overdraft issue.
  + The customer is required to have a minimum of $10.00 in their savings account.
    - Double check that no one has anything less than $10.00 in their savings account. If they do, we do not want to include them in the ATM.
* In case you have never used an ATM before, it does not distribute coins, so all withdrawals and deposits cannot have any decimal values and have to be increments of $5 bills. If the user asks the machine for $86, then you need to notify the user that the machine only handles increments of 5.
* Before the program shutdowns, please make sure to update the text file that is acting as your customer database.
  + Bonus (5%): Encrypt the text file.
  + Be sure to follow best practice when storing your data. Remove any excess information and data that isn’t needed. Hint, if you don’t need all of the data, clean it.
* Each person needs to be an object from the Customer Class
  + Customer Class is a separate file that has the appropriate constructor and getters and setters.
* Files to Submit:
  + lastNameATM.py
  + lastNameCustomer.py
  + lastNameDB.txt
    - This file should be a cleaned up version of the original DB. The IT department just gave us a file with the information, but they didn’t clean it. Again, make sure to follow best practice and clean the file.
* In case you’ve never used an ATM: <https://www.wikihow.com/Use-an-ATM>

Example of Front End Layout:

