Assignment Objective: To provide the student an opportunity to apply their understanding of Python programming to an ATM prototype

Course Project Overview: Throughout this course you will work on an Automated Teller Machine (ATM) prototype. New functionality will be added with each successive iteration you submit. You are provided with a basic set of requirements for the ATM. You will not code for all these requirements in your first iteration. As you work your way through the course, you will address more and more of these requirements. Your final submission will include code that meets all of the business requirements.

ATM Requirements: The following is a basic set of business requirements for the ATM.

User Account and PIN Verification
- When your program first runs, a user will need to enter an account number and 4-digit PIN before they are allowed to move forward and use the ATM.
- Your program should test for a valid account number/pin combination
  - Note - normally an ATM would verify the account # and pin combination against the bank's customer database. For our purposes, just use a dummy account/pin combination that you have statically assigned.
  - If the proper account #/pin combination is not entered, the user should not advance past the initial screen. In this instance, an informative user message should display.
  - If the proper account #/pin combination is properly entered, the user should advance past the initial screen and be provided a means to conduct transactions on the ATM.

After proper account # / pin validation, the program needs to provide the following functionality..
1. Fund Balance Inquiry
2. Deposit
3. Withdraw
4. Exit

Assumptions/Business Rules

- The user has 3 funds available to them; 1 checking account and 2 savings accounts.
- Initial fund balances…checking = $500, 1st savings account = $1500, 2nd savings account = $5000.
- Withdraw amounts can only be $20, $40, $60, $80, or $100.
- Deposits must be greater than $0 and less than or equal to $1000.

Assume that during one user "login session"...

- Cannot withdraw more money than what exists in the account.
- Total withdraws from a <u>single</u> account cannot exceed $300.
- Total withdraws from <u>ALL</u> accounts cannot exceed $750.
- Deposits can be made on any account.
- User can process multiple transactions during one "login session"

After the user processes their last transaction (EXIT), the application should display the following information FOR EACH ACCOUNT…

1. Starting Fund Balance
2. Total Deposits on the account
3. Total Withdraws on the account
4. Ending Fund Balance

In addition to the individual fund information, the application should display the following…

1. Total deposits made on all accounts
2. Total withdraws made on all accounts

Final Assignment Directions:

This is the last and final iteration of the ATM prototype project. Be sure your final submission adheres to all the business rules and includes the necessary elements referenced above. Submit your ".py" file of your ATM project as the formal submission of this assignment.