JAV745 Winter 2020: Lab 2 - (4%)

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School of ICT, Seneca College of Applied Arts and Technology
Winter 2020

Due Sunday February 2, 2020 - 11:30 pm

Instructions

Please read the instructions carefully and follow the naming conventions specified for each question. Solutions must be submitted in the Blackboard Dropbox created for Lab 2.

Note that the deadline is strictly enforced. The system tracks the exact time that submissions are uploaded. **There is a 10% per day penalty for late submissions.**

Additional Notes

- You will be required to demonstrate your work to the professor. Be prepared to answer questions about the code you have written.
- You may use any IDE for development but note that demonstrations and professor testing will be done exclusively on the command line. Ensure that you test your programs on the command line before submission.
- Ensure that your programs are documented using *JavaDoc* standards

Question Descriptions

Question 1) Complete exercise 3.14 in the course text. (**Java How to Program, Early Objects, 11th Edition, By Paul J. Deitel, Harvey Deitel**).

Question 2) Modify the `BankTeller` application coded in Session 3 (it is posted in the Course Document section of Blackboard) to use *objects* instead of multiple arrays to store account information. Your application should store a single array of account objects.

The following requirements should also be satisfied.

(a) the user should prompt for the number of accounts from the user.

(b) the program should get account name from the user instead of the always being "joe"

(c) account withdraw and account deposit must be supported.

(d) a "show balance" choice should be added to the application and implemented.

(e) account balance should never go below zero. Transactions that cause this should be rejected.

(f) a withdraw transaction limit of $500 is set. Any withdrawal above this requires an authorization code. The user should be prompted for this code if the withdrawal limit has been exceeded and should only allow the withdrawal if the code is correct. The authorization code is passed into the program as a command line argument.

(g) opening date and time of last transaction should be stored with each account. This information should be added to the transaction confirmation text shown to the user.

(h) duplication of code should be eliminated where possible by creating a method.

Question 3) Complete exercise 3.16 in the course text. (**Java How to Program, Early Objects, 11^{th} Edition, By Paul J. Deitel, Harvey Deitel**).

Submit only the Java source files. Submit files individually. DO NOT submit a zip file.