

CST8130: Data Structures --- Assign #2- Bank Simulator

Sorting/Searching using ArrayList

DUE: Tuesday October 18 by 10PM SHARP!

Problem Description:

In this assignment, you will modify a solution to Assignment 1. You may use your solution, or my posted one. You will make the Bank data structure more efficient in two ways.

- a) Change the bankData declaration in Bank class to be an object of ArrayList..
- b) Add to the menu an option to display the database – which will display each element in the array. (So you can check your insert changes below are working)
- c) Change the insert into the bankData structure so that the account numbers are in numeric order from smallest to largest in the most efficient way possible.
- d) Once the bankData structure is ordered, **modify your search to also make it as efficient as possible** (Note – do NOT use Generic Collection methods yet).

NOTE You will **NOT need to change the BankAccount and SavingsAccount and ChequingAccount classes** except to **possibly add some comparison methods.**

I suggest you complete each of the requirements one at a time. The output from the assignment should be the same as from Assignment 1.

Submission:

You must submit to the assignment link in Blackboard by the due date and time a zip file (named LastnameFirstNameAssign2) containing:

- **all source code – ie .java files** (Note – I may choose to re-compile your program....so all code must be available to me) with headers as described in Assignment 1
- Your **test plan** that **tests only the changes made** in this program in either .docx or .xls format (ie everything from Assign 1 test plan should still work – but you don't need to repeat in this test plan).

Failure to provide any of the above will have an effect on your grade for this assignment.