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# CPT 187—OBJECT-ORIENTED LOGIC & DESIGN

Program #1 (Fall Semester)

Due Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PROGRAM DESCRIPTION**

Your first Java project will be based on the SavingsAccount class you have been developing in the classroom or while studying the tutorial that discusses it. You will finish coding the class and call a couple more of its methods from main. NOTE: the assumption for this assignment is that you have progressed through the tutorial called “Coding the SavingsAccount Class”. I will not expect that you have gone beyond that in developing the program, so that your code reflects the state of the project at the end of that tutorial.

**SPECIFIC DIRECTIONS**

Although you are starting out with a working class design, you will still need to turn in the complete Class Description (CD) for the project. That shouldn’t be too difficult given that the tutorial’s CD listed all but the constructor, which was added later in the discussion.

For this program you need to finish coding the rest of the class methods. Make sure to code all of the get methods and the set methods with the names spelled out in the CD. For the method withdrawFromBalance you certainly need to subtract the value passed in from the instance variable balance. For the other two methods, which are pretty classic set methods, a simple assignment statement is called for. Finally, rewrite the single assignment statement in the constructor to initialize the starting balance to 0.0. We will not give anybody free money right at the start! Then, add two more assignments inside the constructor: set the rate to 0.5%, that is, 5 tenths of one percent, and set the account number to any value you want…just make something up.

Now, you need to update the main method (in MainClass) as follows. Start out by asking the user for their first name, input that, and use it for the remaining part of the interface. Next, ask the user for an amount to start the account with, and call the addToBalance method to get that amount deposited. Next, ask them for any cash they would like to withdraw from the account, and take care of that. No need to test the amount: if they don’t wish any cash out right now, they will simply enter 0.

Next, display the ending state of the account, that is, the value of each one of the instance variables. List all three values so they can be confident their money is in good hands. That’s it for this program.

Be sure that you have named the project, package, and .Java files correctly. See the Coding Standards handout for the required names. If you used different names when you initially created the project, I would encourage you to create a new project and copy in your existing code. It is possible to update these filenames in Eclipse also, but why take a chance that you might mess up something?

**TURN IN**

A complete Class Description as a Word file (or some other word processing file), and a zipped copy of the complete project directory. (Zipping the project is covered in the handout “Using the Eclipse IDE”.) Submit everything at the Dropbox for this assignment.