TUTORIAL 2

Suggested order: Complete part 1 before completing part 2

Part 1

This practical will be based around Defining and Implementing Classes.

In this practice exercise you should create two files in your Java folder. One file should be called BankAccount.java, available for download in this week's moodle section. Make sure that after you have this file in your Java folder and compile it using javac. As long as you have this BankAccount class in your Java folder (and you have compiled it using javac), you can use the BankAccount class in any other programs you write stored in the same folder.

The second file you should write yourself. This file should be called FixedStartingBalanceBankAccount.java. This file should contain a class of the same name as the file with a main method (as in your other java programs). In this main method you should create a BankAccount object in a variable called myFirstAccount, with an initial balance of 5000.

After creating the object myFirstAccount of class BankAccount, you should use the withdraw method to withdraw 200 from that object. You should then use a JOptionPane MessageDialog to display the balance in myFirstAccount after that withdrawal, with a message like this:

myFirstAccount contains : XXX

where the XXX represents the current balance of the bank account. See "Lecture 5: Communication with JOptionPanes" for details.

When you have written and saved your program, you should compile it and run it using the command prompt as in practical 1 (look at part 2 of that practical for details on compiling and running programs). Make sure your program compiles and runs correctly; if any errors are produced by your program, fix them, save the file again, and recompile.

Part 2

In this practical exercise you should write a file called OptionalStartingBalanceBankAccount.java. This file should contain a class of that name with a main method (as in your other java programs). In this main method you should read a String from the user (using a JOptionPane showInputDialog method), and convert that String to a double (as in last week's exercise). You should then create a BankAccount object in a variable called myTestAccount, with an initial balance equal to the double amount read from the user.

After creating that BankAccount object, you should obtain another String from the user, convert it to a double, and use the withdraw method to withdraw that amount from the from the BankAccount myTestAccount. You should then use a JOptionPane MessageDialog to display the balance in the bankAccount after that withdrawal, with a message like this:

After that withdrawal, myTestAccount contains : XXX

where the XXX represents the current balance of the bank account. See "Lecture 5: Communication with JOptionPanes" for details.

you should give suitable instructions to the user in your showInputDialog messages (things like "Enter initial balance", "Enter amount to withdraw", and so on).

When you have written and saved your program, you should compile it and run it using the command prompt as in practical 1(look at part 2 of that practical for details on compiling and running programs). Make sure your program compiles and runs correctly; if any errors are produced by your program, fix them, save the file again, and recompile.