Copy the file BankAccount.java from Blackboard. Open the file BankAccount.java and compile it. Ensure that you save the following exercises in the same directory or folder as BankAccount.java

1. Write a program called which instantiates a new `BankAccount` object. Test all the methods of this class.

2. Write a program in which you instantiate a single `BankAccount` object. Display a menu that will allow the user to continually deposit, withdraw and view the balance on the account until the user decides to quit. Each of the options 1 – 3 will result in calls to appropriate methods.

   *****LyIT Bank****

   1. Deposit
   2. Withdraw
   3. Get balance
   4. Quit

   Please select option:

3. Modify the `withdraw( )` method of the `BankAccount` class so that a user can only withdraw an amount if the account has sufficient funds. Test the method by adapting the program implemented above.

4. Add a new instance variable `accountNumber` to the BankAccount class. Add new methods called `getAccountNumber()` and `setAccountNumber()` that will allow the user to access this new instance variable. Test your new methods.

5. Implement the `Dog` class as discussed in the lecture (see UML). Write a program where you create a `Dog` object and test your class.

6. Modify the `Dog` class so that a small dog's bark is "yap, yap", a medium dog's bark is "bow, wow" and a large dog says "ruff, ruff".

Small dog	size < 10
Medium dog	size < 30
Large dog	size >= 30

   Note how the behaviour of an object can differ depending on the state of its instance variables.