**COMP 1451 Lab 3-B**

**Take-Home lab**

For this lab you will work with the Scanner class and the HashMap class

Create a Utilities class, the class has one instance variable which is

hashmap of String keys and Integer values

Add the following to the class:

A constructor that takes no parameters and creates the hash map collection

Methods:

* Method populateHashMap(), the method will use the scanner and get a text piece from the user. Each word will be used as a key, the integer will be the number of times the word appears in the text.
* Method displayCollection(), the method will display each key and the number of times it appeared in the given text.
* Method getCount(String word), the method will take String parameter , if the String was in the hash map, the method will display the value associated with given String otherwise, a message stating that the string was not found in the hash map will be displayed.
* Method displayTheWord(int number), the method will take an integer parameter and displays all the words from the hash map that appeared the given number of times
* Method removeWord(String word), the method will check if the given word was in the hash map and remove the mapping that has the given word as a key. If the word was not in the hash map a message stating that the given String was not found in the hash map will be displayed
* Create a main method. In the main method do the following:
  + create and object of type Utilities
  + invoke method populateHashMap()
  + invoke method displayCollection()
  + invoke method getCount() on one of the words in the collection
  + invoke method displayTheWord() on one of the words in the collection
  + invoke method removeWord() on one of the words in the collection
  + invoke method displayCollection ()

The take-home lab is due the deadline posted on the drop box. Zip the project and upload it to the appropriate D2L dropbox by the deadline. A suggested solution will be discussed in class and labs not already in the dropbox will not receive any points.