CSCI-101 Programming II

Lab 8a

Create a directory named **lab8** in your Git repo on cs.bridgewater.edu.

In the **lab8** directory, create a file named **file1.txt** that contains the following text:

```
The quick brown fox jumped over the lazy river
The quick brown fox jumped over the lazy river
The quick brown fox jumped over the lazy river
The quick brown fox jumped over the lazy river
The quick brown fox jumped over the lazy river
```

Write a program in a file named **Freq1.java** that reads a file named from the command line (which will be stored in **args**) and uses a **HashMap** to keep track of the number of times each word appears in the file.

For example, the program, when run on the text above, should report that each word is found 5 times in the text (assuming that the word "The" and the word "the" are considered different words - which is ok at this point).

To accomplish this, the program should do the following.

Get the name of the file from args.

Create a **HashMap** that maps **Strings** to **Integers**. That is, the keys are Strings and the values associated with the Strings are Integers.

Create a **Scanner** that can read the file. No need to modify the delimiters.

For each word in the file, check to see if the word is in the HashMap. If it is not, add the word (as a key) and the value 1 to the HashMap to indicate that the word has been found only once so far. If the word is already a key in the HashMap, get the value associated with the word, increment the value, and put the word and new value back in the HashMap.

When finished reading the file, print to the screen the key/value pairs in the HashMap.

When your program is run on **file1.txt**, your output should look similar to the following.

```
The: 5
quick: 5
brown: 5
fox: 5
jumped: 5
over: 5
the: 5
lazy: 5
river: 5
```