C201 Homework #1 Due 2/3/14

This program inputs a manuscript in text form from standard input device and analyzes the lengths of all the words encountered. Only alphabetic characters, numbers and apostrophes within a word contribute to the word length. Basically you need to write a program that reads words from a standard input, either from the keyboard or from a file via DOS redirection and then outputs a table showing the frequencies of words of various lengths. The output could either be to screen or redirected to a file. Words longer than 15 characters are treated as 15 character word. Example output follows: This is output when run program with file WORDS.5:

Word Length	Frequency
1	5
2	7
3	15
4	12
5	8
6	6
7	4
8	4
9	2
10	0
11	1
12	0
13	0
14	0
15	0

Average word length: 4.328125

Notes:

A) The average word length is from:

(Total length of all words combined) / (Number of words)

B) For test data come up with four of your own plus test my five files called WORDS.1, WORDS.2, WORDS.3, WORDS.4, and WORDS.5 These files are found on my website under the Homework link. You will need to copy these files to your disk or location were your program will run from. All of the files have text in them except for WORDS.3, this file is empty.

C) To get your program to read from a file instead of keyboard you'll have to run the program from the DOS prompt and use redirection. Refer to the handout on *I/O Redirection*. Capturing the screen output can be done several ways. In Windows XP, in output window, right click, then select Mark, then select text, then press Enter, where it is placed on clipboard. This can then be placed in Note Pad to print out. Could also redirect output to another file.

D) When turning in homework refer to handouts, *Rules for programming assignments* and *Turning in Programming Assignments*. Make sure to comment well, and tell what is considered a word.

E) Think carefully on algorithm design and what determines a word. We will discuss this in more detail in class.