

Word Count

This is a **challenge** exercise. It is **not compulsory**, and may be completed **individually or with your lab partner**.

In this activity, you will make a program called `wordCount.c`.

This program should read in characters using `getchar()` until the end of input is reached.

Your program should count the number of words it reads. For simplicity, characters that are part of a word are

- lowercase and uppercase letters,
- numbers,
- the apostrophe,
- the hyphen (`-`), and
- underscore (`_`). Every other character is considered a separator between words.

Remember, you may not always *start* or *end* with a word and multiple word separators doesn't indicate multiple words.

For example:

```
$ ./wordCount
The quick brown fox jumped over the lazy dog.
Ctrl+D
9 words
```

```
$ ./wordCount
only
three
words
Ctrl+D
3 words
```

Remember, `getchar()` will read in the next character from input and return it. When it reaches the end of input, it will return the value `EOF`. You can tell a program to stop reading characters by using `Ctrl+D` which will cause `getchar()` to return the `EOF` value.

To read from a file instead of typing in text, you can use `<`. For example:

```
$ ./frequencyAnalysis < myTestFile.txt
```

To tell the program you have finished typing, you can press `Ctrl+D`.

To run some simple automated tests:

```
$ 1511 autotest wordCount
```

To run Styl-o-matic:

```
$ 1511 stylomatic wordCount.c  
Looks good!
```

You'll get advice if you need to make changes to your code.

Submit your work with the `give` command, like so:

```
$ give cs1511 wk05_wordCount
```

Or, if you are working from home, upload the relevant file(s) to the `wk05_wordCount` activity on [Give Online](#).