CS2263 Assignment 4 – Isaac Shoebottom

Design:

The design of the program is very simple. The html file is taken in as a file, processed into one long string. A function called readUntilNext is run that searches for the next valid HTML tag. It then returns the location of the tag as a pointer to the long input string. This is then stored in a new string in a separate list. This is done until the readUntilNext is done going down the file. Upon certain conditions when a tag is an exact match to another a function called areEqualTags is run that examines the two tags as pointers to locations on the long string. If they end up being the same, the counter for that tag is incremented. If else, then it is a new tag and new memory is allocated to store its string and its count. At the end an external function called printStats prints the count and name of the tags. The memory is then freed, and the program exits.

Test:

```
"C:\Users\isaac\OneDrive - University of New Brunswick\Year 2 UNB\CS2263\Assigments\4\CLionProject\cmake-build-debug\test.exe"
html    1
title   1

Process finished with exit code 0
```

HelloWorld:

```
"C:\Users\isaac\OneDrive - University of New Brunswick\Year 2 UNB\CS2263\Assigments\4\CLionProject\cmake-build-debug\htags.exe"
html    1
head    1
title   1
body    1
p       1

Process finished with exit code 0
```

Sample.html:

```
"C:\Users\isaac\OneDrive - University of New Brunswick\Year 2 UNB\CS2263\Assigments\4\CLionProject\cmake-build-debug\htags.exe"
html    1
head    1
meta    1
title   1
body    1
strong  1
ol      1
li      2
blink   1
p       2

Process finished with exit code 0
```