

Lab Report 3 - Researching Commands

grep [🔗](#)

grep -c

The `grep -c` combination shows a count of the lines that have a word that matches with the String you are looking for. It specifically helps you determine how many times the word appears in a file.

[Link to source.](#)

This code block shows me applying `grep -c` to look for the string "the" in a text file. The count comes out to be 68. In the two last commands I stored the results of a normal `grep` to a text file and then did a word count to verify it was the correct number of lines.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -c the non-fiction/OUP/Abernathy/ch1.txt
68
```

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep the non-fiction/OUP/Abernathy/ch1.txt > grep-results.txt
```

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ wc grep-results.txt
68 6884 46232 grep-results.txt
```

In this code block I am applying `grep -c` to the file I know has the string "Lucayans". And indeed, it appears two times.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -c Lucayans travel_guides/berlitz2/Bahamas-History.txt
2
```

grep -r

The `grep -r` command looks for a word in a data structure recursively.

Source: A classmate told me about this combination when studying for the skill demo. Apparently, chatGPT told her about it.

This code block shows how I used `grep -r` to figure out what files contained the string “Lucayans”.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -r Lucayans ./
./travel_guides/berlitz2/Bahamas-History.txt:Centuries before the arrival of Columbus, a peaceful Ameri
./travel_guides/berlitz2/Bahamas-History.txt:The Spaniards never bothered to settle in the Bahamas, but
```

This code block shows how I used `grep -r` to look for the string “Biology” in the file structure. Here I actually pressed Enter before writing the directory by accident and I discovered that you don’t need to include it. It just looks in the working directory.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -r Biology
non-fiction/OUP/Kauffman/ch1.txt:Prolegomenon to a General Biology
non-fiction/OUP/Kauffman/ch1.txt:As long ago as 1971, I had published my own first foray into the origi
non-fiction/OUP/Kauffman/ch8.txt:The Biology
```

grep -rl

This command combination searches recursively for a specific string in a file structure. It also only shows the name of the files that contain the String once.

[Link to source.](#)

In this code block I looked for the string “Lucayans” in the working directory.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -rl Lucayans ./
./travel_guides/berlitz2/Bahamas-History.txt
```

This code block shows how I used `grep -rl` to look for the string “Biology” in the file structure.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -rl biology ./
./non-fiction/OUP/Berk/ch1.txt
./non-fiction/OUP/Kauffman/ch1.txt
./non-fiction/OUP/Kauffman/ch10.txt
./non-fiction/OUP/Kauffman/ch3.txt
./non-fiction/OUP/Kauffman/ch6.txt
./non-fiction/OUP/Kauffman/ch7.txt
./non-fiction/OUP/Kauffman/ch8.txt
./non-fiction/OUP/Kauffman/ch9.txt
```

grep -n

This command combination displays the line number in which the string is in the file.

[Link to source.](#)

In this code block I looked for the string “Lucayans” the text file Bahamas-History.txt.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -n Lucayans travel_guides/berlitz2/Bahamas-History.txt
6:Centuries before the arrival of Columbus, a peaceful Amerindian people who called themselves the Lucc
7:The Spaniards never bothered to settle in the Bahamas, but the number of shipwrecks attest that their
```

This code block shows how I used grep -n to look for the string “Biology” in the text file ch1.txt.

```
leezz@Lisa MINGW64 ~/OneDrive/Documents/UCSD/WI23/docsearch/written_2 (main)
$ grep -n biology ./non-fiction/OUP/Berk/ch1.txt
123:Look closely at these ideas—that children are aected by interwoven factors in biology, everyday con
131:How does early experience join with biology to aect brain development? The cerebral cortex, seat of
```