

cse15l-lab-reports

Lab Report 5: Find command options

Source used: <https://www.redhat.com/sysadmin/linux-find-command>

1.) -iname

This option allows you to ignore case when using the find command.

```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -iname "*history*.txt"
./written_2/travel_guides/berlitz1/HistoryDublin.txt
./written_2/travel_guides/berlitz1/HistoryEdinburgh.txt
./written_2/travel_guides/berlitz1/HistoryEgypt.txt
./written_2/travel_guides/berlitz1/HistoryFrance.txt
./written_2/travel_guides/berlitz1/HistoryFWI.txt
./written_2/travel_guides/berlitz1/HistoryGreek.txt
./written_2/travel_guides/berlitz1/HistoryHawaii.txt
./written_2/travel_guides/berlitz1/HistoryHongKong.txt
./written_2/travel_guides/berlitz1/HistoryIbiza.txt
./written_2/travel_guides/berlitz1/HistoryIndia.txt
./written_2/travel_guides/berlitz1/HistoryIsrael.txt
./written_2/travel_guides/berlitz1/HistoryIstanbul.txt
./written_2/travel_guides/berlitz1/HistoryItaly.txt
./written_2/travel_guides/berlitz1/HistoryJamaica.txt
./written_2/travel_guides/berlitz1/HistoryJapan.txt
./written_2/travel_guides/berlitz1/HistoryJerusalem.txt
./written_2/travel_guides/berlitz1/HistoryLakeDistrict.txt
./written_2/travel_guides/berlitz1/HistoryLasVegas.txt
./written_2/travel_guides/berlitz1/HistoryMadeira.txt
./written_2/travel_guides/berlitz1/HistoryMadrid.txt
./written_2/travel_guides/berlitz1/HistoryMalaysia.txt
./written_2/travel_guides/berlitz1/HistoryMallorca.txt
./written_2/travel_guides/berlitz2/Algarve-History.txt
./written_2/travel_guides/berlitz2/Amsterdam-History.txt
./written_2/travel_guides/berlitz2/Athens-History.txt
./written_2/travel_guides/berlitz2/Bahamas-History.txt
./written_2/travel_guides/berlitz2/Bali-History.txt
./written_2/travel_guides/berlitz2/Barcelona-History.txt
./written_2/travel_guides/berlitz2/Beijing-History.txt
```

Search for any file with the word "history" at the end, whether it was capitalized or not.

```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -iname "vallarta-history.txt"
./written_2/travel_guides/berlitz2/Vallarta-History.txt
```

Search for a .txt file named "vallarta-history" regardless of case.

Note: useful when you do not remember the capitalization of a file, or the capitalization system of your project is not consistent.

2.) -exec

This option allows you to basically run multiple commands in a single command. In this case, I used the find command, then grep on the results of this find command.

```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -name "*.txt" -exec grep -Hi lucayans {} \;
./written_2/travel_guides/berlitz2/Bahamas-History.txt:Centuries before the arrival
of Columbus, a peaceful Amerindian people who called themselves the Luccuairi had
settled in the Bahamas. Originally from South America, they had traveled up throug
h the Caribbean islands, surviving by cultivating modest crops and from what they c
aught from sea and shore. Nothing in the experience of these gentle people could ha
ve prepared them for the arrival of the Pinta, the Niña, and the Santa Maria at San
Salvador on 12 October 1492. Columbus believed that he had reached the East Indies
and mistakenly called these people Indians. We know them today as the Lucayans. Co
lumbus claimed the island and others in the Bahamas for his royal Spanish patrons,
but not finding the gold and other riches he was seeking, he stayed for only two we
eks before sailing towards Cuba.
./written_2/travel_guides/berlitz2/Bahamas-History.txt:The Spaniards never bothered
to settle in the Bahamas, but the number of shipwrecks attest that their galleons
frequently passed through the archipelago en route to and from the Caribbean, Flori
da, Bermuda, and their home ports. On Eleuthera the explorers dug a fresh-water wel
l – at a spot now known as “Spanish Wells” – which was used to replenish the suppli
es of water on their ships before they began the long journey back to Europe with t
heir cargoes of South American gold. As for the Lucayans, within 25 years all of th
em, perhaps some 30,000 people, were removed from the Bahamas to work – and die – i
n Spanish gold mines and on farms and pearl fisheries on Hispaniola (Haiti), Cuba,
and elsewhere in the Caribbean.
```

Search for only .txt files containing “lucayans” (case ignored).

```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -name "Vallarta-History.txt" -exec grep -Hi lucayans {} \;
```

Search for a file named “Vallarta-History.txt” and then whether it contains the string “lucayans” (case ignored).

Note: this option is very useful for getting more specific results (i.e. using grep on only certain files in your project)

3.) -type

This allows you to search for all instances of a specific type, like files or directories.

```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -type f
./.git/config
./.git/description
./.git/HEAD
./.git/hooks/applypatch-msg.sample
./.git/hooks/commit-msg.sample
./.git/hooks/fsmonitor-watchman.sample
./.git/hooks/post-update.sample
./.git/hooks/pre-applypatch.sample
./.git/hooks/pre-commit.sample
./.git/hooks/pre-merge-commit.sample
./.git/hooks/pre-push.sample
./.git/hooks/pre-rebase.sample
./.git/hooks/pre-receive.sample
./.git/hooks/prepare-commit-msg.sample
./.git/hooks/push-to-checkout.sample
./.git/hooks/update.sample
./.git/index
./.git/info/exclude
./.git/logs/HEAD
./.git/logs/refs/heads/main
./.git/logs/refs/remotes/origin/HEAD
./.git/objects/pack/pack-b98cb6a4ca64cc7b2944f0fa07d3e03927d66064.idx
./.git/objects/pack/pack-b98cb6a4ca64cc7b2944f0fa07d3e03927d66064.pack
./.git/packed-refs
./.git/refs/heads/main
./.git/refs/remotes/origin/HEAD
./written_2/non-fiction/OUP/Abernathy/ch1.txt
./written_2/non-fiction/OUP/Abernathy/ch14.txt
./written_2/non-fiction/OUP/Abernathy/ch15.txt
./written_2/non-fiction/OUP/Abernathy/ch2.txt
./written_2/non-fiction/OUP/Abernathy/ch3.txt
./written_2/non-fiction/OUP/Abernathy/ch6.txt
./written_2/non-fiction/OUP/Abernathy/ch7.txt
./written_2/non-fiction/OUP/Abernathy/ch8.txt
./written_2/non-fiction/OUP/Abernathy/ch9.txt
./written_2/non-fiction/OUP/Berk/ch1.txt
./written_2/non-fiction/OUP/Berk/ch2.txt
./written_2/non-fiction/OUP/Berk/CH4.txt
./written_2/non-fiction/OUP/Berk/ch7.txt
./written_2/non-fiction/OUP/Castro/chA.txt
```

Search for all files in the current directory (response shortened to save space).


```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -type d
.
./.git
./.git/hooks
./.git/info
./.git/logs
./.git/logs/refs
./.git/logs/refs/heads
./.git/logs/refs/remotes
./.git/logs/refs/remotes/origin
./.git/objects
./.git/objects/info
./.git/objects/pack
./.git/refs
./.git/refs/heads
./.git/refs/remotes
./.git/refs/remotes/origin
./.git/refs/tags
./written_2
./written_2/non-fiction
./written_2/non-fiction/OUP
./written_2/non-fiction/OUP/Abernathy
./written_2/non-fiction/OUP/Berk
./written_2/non-fiction/OUP/Castro
./written_2/non-fiction/OUP/Fletcher
./written_2/non-fiction/OUP/Kauffman
./written_2/non-fiction/OUP/Rybczynski
./written_2/travel_guides
./written_2/travel_guides/berlitz1
./written_2/travel_guides/berlitz2
```

Search for all subdirectories in the current directory.

Note: this command may be useful when there are few instances of a certain type, or you are unsure whether a file/directory exists.

4.) -empty

This allows you to search for only empty files in the specified directory.

```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -type f -empty
```

Searches for all empty files in skill-demo1-data (there are none initially, so it does not return anything).

```
wucon@DESKTOP-EGE4GMK MINGW64 ~/Desktop/skill-demo1-data (main)
$ find -type f -empty
```

After adding an empty file to skill-demo1-data, the find -empty command now returns that file.

Note: Handy when cleaning up a project with unnecessary empty files.