**How to use “find” command in Linux**

Find command is a powerful tool that allows us to quickly and easily scan through the file systems to find files and directories that match a certain criterion and we can also perform some actions on the results returned.

**Command 1-To find all the files and directories starting in this current directory**

**$** find .

.(dot) represents the current directory

We get all the directories and subdirectories below our current directory.

**Command 2-To find all the files and directories in a specific directory**

**$** find dir\_name

**Command 3-To find only the directories and no files**

**$** find . -type d

**Command 4-To find only the files and no directories**

**$** find . -type f

**Command 5-To find a specific file present below the current directory**

**$** find . -type f -name “filename”

**Command 6-To find all the files which starts/ends with a certain string**

**$** find . -type f -name “\*log”

\* is for wildcard

**Command 7-To find all the files which starts/ends with a certain string but case insensitive**

**$** find . -type f -iname “\*log”

**Command 8- To find all python files inside the current directory**

**$** find . -type f -name “\*.py”

**Find files based on their metadata**

**mmin - modified minutes**

**mtime - modified days**

**amin - access minutes**

**atime - access days**

**cmin - changed minutes**

**ctime - changed days**

**Command 9- Find all the files modified in the last 10 mins**

**$** find . -type f -mmin -10

* Less than 10 mins ago
* More than 10 mins ago

**Command 10- Find all the files modified more than 1 min ago but less than 5 min ago**

**$** find . -type f -mmin +1 -mmin -5

**Command 11- Find all the files modified in the last 10 days ago**

**$** find . -type f -mtime -10

Let’s say we have some files eating up our disk space, and we don’t know where those are.

We could run a search and try to find all the files over a certain size.

**Command 12- Find all the files over 5 MB**

**$** find . -size +5M

k - KB

M - MB

G - GB

**Command 13- Finding any files that are empty**

**$** find . -empty

**Search based on permissions**

**Command 14- Finding files to check that certain permissions are what they should be**

**$** find . -perm 777

**Perform actions on our results**

**Ex-1**

**Let’s say that we find many files and directories inside our current directory that have wrong permissions and by mistake everything is set to 777 which gives everyone the right to read, write and execute permissions. Now, we want to change the user and group for every file and directory and then we want to set the permission level of all directories to 775 and all the files to have 664.**

**This could be done in 3 commands**

**$ find . -exec chown coreyschafer:www-data {} +**

**$ find . -type d -exec chmod 775 {} +**

**$ find . -type f -exec chmod 664 {} +**

First of all we want to change the user and group for every file and directory inside our current directory .

-exec -> is used to execute a command on the results returned

chown -> It will change the owner of each result

$ chown coreyschafer:www-data

1. If we run this command normally we would put the name of the file at the end of command , but since we are getting these results through find command we need to put a placeholder at the end instead.

1. ( coreyschafer is the user, www-data is the group )
2. Placeholder is the {}
3. To end our command we put +

$ find . -exec chown coreyschafer:www-data {} +

Now we have to set files to 664 and directories 775

$ find . -type d -exec chmod 775 {} +

$ find . -type f -exec chmod 664 {} +

**Let’s say we want to delete all the image files that ended with .jpeg extension**

**Since we are performing a delete command it's advised to first look at the result and then perform delete in the next command.**

**Command -1**

**$** find . -type f -name “\*.jpg”

**Command - 2**

**$** find . -type f -name “\*.jpg” -maxdepth 1

Maxdepth 1 will delete only in the current directory and not in subdirectories

If we won’t have done maxdepth 1 , it would have deleted in all the directories and subdirectories below.

**Command -3**

**$** find . -type f -name “\*.jpg” -maxdepth 1 -exec rm {} +