find examples

Find command used to search and locate list of files and directories

Syntax:-
find <searching from path> -name search file

Find all the files whose name is emp.csv in a current working directory.

root@krosumlabs Day3]# pwd
/root/ShellScript/Day3

root@krosumlabs Day3]# find -name emp.csv
./emp.csv
./L1/emp.csv
./L1/L2/emp.csv
./L1/L2/L3/emp.csv

find command search the input files recursively

Find all the files whose name is emp.csv in a login directory .

root@krosumlabs Day3]# find ~ -name emp.csv

/root/emp.csv

/root/Demo/emp.csv

/root/ShellScript/Day3/emp.csv

/root/ShellScript/Day3/L1/emp.csv

/root/ShellScript/Day3/L1/L2/emp.csv

/root/ShellScript/Day3/L1/L2/L3/emp.csv

/root/Temp/emp.csv

Find Files Using Name and Ignoring Case

- **root@krosumlabs Day3]# find ~ -iname emp.csv**

./EMP.csv

./emp.csv

./L1/emp.csv

./L1/Emp.csv

./L1/L2/emp.csv

./L1/L2/L3/emp.csv

Search a file with pattern

- **root@krosumlabs Day3]# find -name "*.log"**
- ./r1.log
- ./r2.log
- ./L1/temp.log

Find list of regular files in a current directory.

root@krosumlabs Day3]# find -type f
./ab.txt
./EMP.csv
./emp.csv
./L1/emp.csv
./L1/Emp.csv
./L1/L2/emp.csv
./L1/L2/L3/emp.csv
./r1.log
./r2.log
./L1/temp.log
./p1.sh
./temp.log

Find list of directory files in a current directory.

root@krosumlabs Day3]# find -type d

.

./L1

./L1/L2

./L1/L2/L3

Find list of character type device files in a /dev directory

- **root@krosumlabs Day3]# find /dev -type c**
- /dev/hidraw0
- /dev/rfkill
- /dev/vcsa5
- /dev/tty1
- …
- /dev/mem
- /dev/vga_arbiter

Find Files Based on their Permissions

- Find all the files whose permissions are 777

- **root@krosumlabs Day4]# find -perm 0777**
- ./p1.sh
- ./p2.sh
- ./p3.sh

- **root@krosumlabs Day4]# find -perm -u=rwx**
- ./p1.sh
- ./p2.sh
- ./p3.sh

mindepth and maxdepth

- using mindepth and maxdepth limiting search to a specific directory.

- maxdepth levels : Descend at most levels (a non-negative integer) levels of directories below the starting-points.
- -maxdepth 0 means only apply the tests and actions to the starting-points themselves.

- mindepth levels : Do not apply any tests or actions at levels less than levels (a non-negative integer).
- -mindepth 1 means process all files except the starting-points.

Find the passwd file under all sub-directories starting from root directory.

- **root@krosumlabs ~]# find / -name passwd**
- /usr/bin/passwd
- /sys/fs/selinux/class/passwd
- /usr/share/bash-completion/passwd
- /etc/pam.d/passwd
- /etc/passwd

Find the passwd file under / directory and one level down

(i.e root — level 1, and one sub-directory — level 2)

root@krosumlabs ~]# find / -maxdepth 2 -name passwd

/etc/passwd

Find the passwd file under / directory (search from level 3)

root@krosumlabs ~]# find / -mindepth 3 -name passwd

/usr/bin/passwd

/sys/fs/selinux/class/passwd

/usr/share/bash-completion/passwd

/etc/pam.d/passwd

Find the passwd file under / directory (search from level 4)

- **root@krosumlabs ~]# find / -mindepth 4 -name passwd**
- /sys/fs/selinux/class/passwd
- /usr/share/bash-completion/passwd

Find Files and Directories Based on Date and Time

- As units you can use:
- b – for 512-byte blocks (this is the default if no suffix is used)
- c – for bytes
- w – for two-byte words
- k – for Kilobytes (units of 1024 bytes)
- M – for Megabytes (units of 1048576 bytes)
- G – for Gigabytes (units of 1073741824 bytes)
- we can search for exact file size, or just for bigger (+) or smaller (–) files.

For example all bigger than 512k files

root@krosumlabs ~]# find / -size +512k

search only reg.files

root@krosumlabs ~]# find / -type f -size +512k

To find all 50MB files.

root@krosumlabs ~]# find / -size 50M

To find all the files which are greater than 50MB and less than 100MB.

root@krosumlabs ~]# find / -size +50M -size -100M

To find all the files which are modified 30 days back.

root@krosumlabs ~]# find / -mtime 30

To find all the files which are accessed 30 days back.

root@krosumlabs ~]# find / -atime 30

- To find all the files which are modified more than 50 days back and less than 100 days.

- root@krosumlabs ~]# find / -mtime +50 –mtime -100

To find all the files which are changed in last 1 hour.

root@krosumlabs ~]# find / -cmin -60

To find all the files which are modified in last 1 hour.

root@krosumlabs ~]# find / -mmin -60

xargs

- xargs converts input from standard input into arguments to a command.

- root@krosumlabs ~]# echo "one
- two
- three
- four"

- one
- two
- three
- four

- By default xargs displays whatever comes to its stdin as shown below.

```
root@krosumlabs ~]# echo "one
two
three
four"|xargs

one two three four
```

root@krosumlabs~]# find -name "*.txt"
./ab.txt
./sab.txt
./temp.txt

delete all the .txt files

root@krosumlabs~]# find -name "*.txt"|xargs rm

- find list of emp.csv files under /root directory
- search a sales keyword from filtered files

find /root -name "*.csv" |xargs grep -n sales

exec

- execute command
- **find -exec command {} \;**
- **find /root -name "*.csv" -exec grep -n sales {} \;**
- search all files with size more than 100MB and delete them.
- **find / -size +100M -exec /bin/rm {} \;**