

Finding files based on time

We have different options to find the file based on time

-ctime : Created time

-atime : access time

-mtime : modified time

specify values in
days

-cmin : created min

-amin : access min

-mmin : modified min

specify values
in min

Example 1: find files which are created 10 days back

Ans: `find . -type f -ctime -10`

Example 2: find files which are modified 10 days back

Ans: `find . -type -mtime -10`

Example 3: find files which are accessed 10 days back

Ans: `find . -type atime -10`

Example 4: find files which are accessed 1 min back

```
find . -type f -amin -1
```

Example 5: find files which are modified 1 min back

```
find . -type f -mtime -1
```

Example 6: find files which are created 2 min back

```
Ans: find . -type f -cmin -2
```

Find command with -exec option

Once files are found, if we want to perform some operation on the result like copy, move or delete then we need to use -exec option

```
find . -type f -name '*.txt' -exec mv {} C \;
```

```
find . -type f -name '*.bz2' -exec cp {} C \;
```

1) There is space between -exec and command name (like cp)

2) There is space between command name (cp) and {} bracket

3) There is space between {} bracket and destination directory (C)

4) There is space between destination directory (C) and \;

5) There is no space between \ and semicolon

These two parameters are changeable

From above example

First example finds all txt files from current location and moves them into directory C

Second example finds all .bz2 files and copies them into directory C

locate command

-> locate command is used to search a file or directory

-> Basic difference between find and locate command is

- i) find command searches file in the **linux file system**
- ii) locate command searches file in the **linux database**

-> by default locate command is not available in linux but we can install using below command

```
sudo apt install mlocate
```

-> Syntax of locate command

```
locate file_or_directory_name
```

-> note: for locate command no need to specify location because it always searches in database

-> Example : find all files with .bz2 extension

```
Ans: locate '*.bz2'
```

-> Example : find all files with .txt extension

```
Ans: locate '*.txt'
```

-> Example : Find all directory whose name start with D

```
Ans :   locate 'D*'
```

We can limit the number of lines in the result by using --limit option

Example : search all text files but in the result display only first 10 lines

```
Ans: locate --limit 10 '*.txt'
```

Before display the result you can check a file is exist or not with -e option or --existing option

Example : locate -e 'D*'

to specify the limit we can use --limit or -l option

-L : To check whether symbolic links are pointing to original file or not
or we can use --follow

-> locate command using database to search a file.
-> This database is update only ones per day by default
-> Explicitely we can update database

-> To update database we need to use below command

```
sudo updatedb  
[sudo] password for rrd:
```

If we want to see the database we can use locate command with -S option
locate -S

Note : to switch to root user use this command : sudo -i
and provide password

we can display the database file like

from root user to normal user switch use -> su username