

UNIX Course Module 3

Hands-on: 1

UNIX/Linux Training



Everything is a File in UNIX

Files: The first character of flags indicates the type of file. '-' represents that it is an ordinary file

```
intellipaat@localhost:~
File Edit View Search Terminal Help
[intellipaat@localhost ~]$ vi test.txt
[intellipaat@localhost ~]$ ls -l
total 12
-rw-rw-r--. 1 intellipaat intellipaat
                                        32 Nov 14 08:34 '\'
drwxr-xr-x. 2 intellipaat intellipaat
                                        6 Nov 11 02:36
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36
drwxr-xr-x. 2 intellipaat intellipaat
                                        6 Nov 11 02:36
drwxrwxr-x. 2 intellipaat intellipaat
                                        38 Nov 14 06:12
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36 Music
drwxr-xr-x. 2 intellipaat intellipaat 4096 Nov 13 23:17
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36
                                                         Public
drwxr-xr-x. 2 intellipaat intellipaat
                                        6 Nov 11 02:36
-rw-rw-r--. 1 intellipaat intellipaat
                                        12 Nov 15 02:34
                                                         test.txt
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36
```

Directories: 'd' represents that it is a directory, which is a special file.

```
intellipaat@localhost:~
 File Edit View Search Terminal Help
[intellipaat@localhost ~]$ mkdir Hello
[intellipaat@localhost ~]$ ls -l
total 12
-rw-rw-r--. 1 intellipaat intellipaat
                                        32 Nov 14 08:34 '\'
drwxr-xr-x. 2 intellipaat intellipaat
                                       6 Nov 11 02:36 Desktop
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36 Documents
drwxr-xr-x. 2 intellipaat intellipaat
                                        6 Nov 11 02:36
drwxrwxr-x. 2 intellipaat intellipaat
                                        38 Nov 14 06:12
drwxrwxr-x. 2 intellipaat intellipaat
                                         6 Nov 15 03:30 Hello
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36
drwxr-xr-x. 2 intellipaat intellipaat 4096 Nov 15 02:38
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36
drwxr-xr-x. 2 intellipaat intellipaat
                                         6 Nov 11 02:36
-rw-rw-r--. 1 intellipaat intellipaat
                                       12 Nov 15 02:34 test.txt
```



Executable: Executables are files too. As you can see command 'ls' is indicated with '-' which means that too is a file.

```
intellipaat@localhost:/bin
File Edit View Search Terminal Help
[intellipaat@localhost bin]$ ls -l *ls*
rwxr-xr-x. 1 root root 85480 May 14 2019 alsaloop
-rwxr-xr-x. 1 root root 78072 May 14 2019 alsamixer
-rwxr-xr-x. 1 root root 13368 May 14 2019 alsatplg
rwxr-xr-x. 1 root root 17904 May 14 2019 alsaucm
-rwxr-xr-x. 1 root root 123 May 14 2019 alsaunmute
rwxr-xr-x. 1 root root 171304 May 17 09:43 brltty-lsinc
-rwxr-xr-x. 1 root root 13408 May 13 2019 enchant-lsmod
rwxr-xr-x. 1 root root 13416 May 13 2019 enchant-lsmod-2
-rwxr-xr-x. 1 root root 41832 May 11 2019 false
-rwxr-xr-x. 1 root root 254816 Jun 4 08:10 grub2-menulst2cfg
-rwxr-xr-x. 1 root root 13392 May 14 2019 gupnp-dlna-ls-profiles-2.0
-rwxr-xr-x. 1 root root 13600 May 11 2019 idiag-socket-details
-rwxr-xr-x. 1 root root 166448 May 11 2019 ls
```

Processes: Say we are running the 'vim' editor in background. It will give us an id, which is our process id.

\$ vim &

Now go inside the /proc directory, you will see the process id for 'vim' editor

\$ cd /proc



Run the following command inside /proc and you will see the process is also listed as a directory which is nothing but a special file.

\$ Is -I

```
intellipaat@localhost:/proc
 File Edit View Search Terminal Help
[intellipaat@localhost proc]$ ls -l
total 0
dr-xr-xr-x. 9 root
                                    root
                                                                       0 Nov 14 22:18 1
dr-xr-xr-x. 9 root
dr-xr-xr-x. 9 root
dr-xr-xr-x. 9 gdm
dr-xr-xr-x. 9 gdm
dr-xr-xr-x. 9 root
dr-xr-xr-x. 9 root
dr-xr-xr-x. 9 root
                                                                       0 Nov 14 22:18 10
                                    root
                                                                       0 Nov 15 00:05 10286
                                    root
                                                                       0 Nov 14 22:19 1065
                                    gdm
                                                                       0 Nov 14 22:19 1075
                                    gdm
                                   root
                                                                       0 Nov 14 22:18 11
                                                                       0 Nov 14 22:18 12
                                    root
                                                                       0 Nov 15 03:41 12737
                                    root
dr-xr-xr-x. 9 root
                                   root
                                                                      0 Nov 14 22:18 13
                                                                      0 Nov 15 04:30 13267
dr-xr-xr-x. 9 root
                                   root
dr-xr-xr-x. 9 gdm
                                                                       0 Nov 14 22:19 1327
                                    gdm
dr-xr-xr-x. 9 intellipaat
                                                                       0 Nov 15 04:30 13289
                                    intellipaat
                                                                      0 Nov 15 04:36 13381
dr-xr-xr-x. 9 root
                                    root
```