

## Display All Information About Files/Directories Using ls -l

\$ ls -l : To show long listing information about the file/directory.

```
maverick@maverick-Inspiron-5548: ~
maverick@maverick-Inspiron-5548:~$ ls -l
total 44892
-rw-rw-r--  1 maverick maverick    1176 Feb 16 00:19 1.c
-rwxrwxr-x  1 maverick maverick   9008 May 10 22:54 a.out
-rw-rw-r--  1 maverick maverick    484 Mar 29 22:18 ass8_1.c
-rw-rw-r--  1 maverick maverick  19920 Feb 16 00:20 binary.txt
-rw-rw-r--  1 maverick maverick    67 May 31 13:16 cfile.c
-rw-rw-r--  1 maverick maverick   187 May 31 13:21 c++file.cpp
-rw-rw-r--  1 maverick maverick  1552 May 31 13:37 cfile.o
-rwxrwxr-x  1 maverick maverick   8120 May 31 13:37 cfile.so
-rw-rw-r--  1 maverick maverick   1017 Feb 17 04:43 client.c
drwxr-xr-x  2 maverick maverick   4096 May 27 22:28 Desktop
drwxr-xr-x  2 maverick maverick   4096 Apr  2 04:11 Documents
drwxr-xr-x  2 maverick maverick   4096 May 31 13:12 Downloads
-rw-rw-r--  1 maverick maverick    54 Mar 29 22:23 end.txt
drwxrwxr-x 11 maverick maverick   4096 Nov 18  2016 Exam
-rw-r--r--  1 maverick maverick   8980 Nov  6  2016 examples.desktop
drwxr-xr-x  6 maverick maverick   4096 Nov 18  2016 FALCONN-1.2
-rw-rw-r--  1 maverick maverick    513 May 10 22:47 fifo1.c
-rw-rw-r--  1 maverick maverick    496 May 10 22:47 fifo2.c
-rw-rw-r--  1 maverick maverick    152 Jun  3 16:43 first.txt
-rw-r--r--  1 maverick maverick  10856 Nov 18  2016 glove.cc
-rw-rw-r--  1 maverick maverick 45750028 Nov  1  2016 google-chrome-stable_cu
nt_amd64.deb
```

***-rw-rw-r-- 1 maverick maverick 1176 Feb 16 00:19 1.c***

1st Character – File Type: First character specifies the type of the file.

In the example above the hyphen (-) in the 1st character indicates that this is a normal file. Following are the possible file type options in the 1st character of the ls -l output.

### Field Explanation

- - normal file
- d : directory
- s : socket file
- l : link file
- **Field 1 – File Permissions:** Next 9 character specifies the files permission. The every 3 characters specifies read, write, execute permissions for user(root), group and others respectively in order. Taking above example, -rw-rw-r-- indicates read-write permission for user(root) , read permission for group, and no permission for others respectively. If all three permissions are given to user(root), group and others, the format looks like -rwxrwxrwx
- **Field 2 – Number of links:** Second field specifies the number of links for that file. In this example, 1 indicates only one link to this file.
- **Field 3 – Owner:** Third field specifies owner of the file. In this example, this file is owned by username 'maverick'.
- **Field 4 – Group:** Fourth field specifies the group of the file. In this example, this file belongs to "maverick" group.
- **Field 5 – Size:** Fifth field specifies the size of file in bytes. In this example, '1176' indicates the file size in bytes.

- **Field 6 – Last modified date and time:** Sixth field specifies the date and time of the last modification of the file. In this example, 'Feb 16 00:19' specifies the last modification time of the file.
- **Field 7 – File name:** The last field is the name of the file. In this example, the file name is 1.c.