

Basic Linux Commands:

(A)

ls

ls -l

ls -a,

ls -b, ls -c, ls -d, ls -e, ls -f,, ls -z? **what is these all about?**

Explanation:

The **ls -l** command in Linux provides a "long listing" format, displaying detailed information about files and directories. The output is organized into several columns, each representing a specific attribute:

- **File Type and Permissions:** The first character indicates the file type (e.g., - for a regular file, d for a directory, l for a symbolic link). The subsequent nine characters represent the read, write, and execute permissions for the owner, group, and others, respectively (e.g., rwxrw-r--).
- **Number of Hard Links:** This column shows the number of hard links pointing to the file or directory.
- **Owner:** The username of the file's owner.
- **Group:** The name of the group that owns the file.
- **Size:** The size of the file in bytes. For directories, this often reflects the size of the directory entry itself, not the cumulative size of its contents.
- **Last Modified Date and Time:** The timestamp indicating when the file or directory was last modified.
- **File or Directory Name:** The name of the file or directory. If it's a symbolic link, it will also show the target file or directory (e.g., link_name -> target_name).

Activity-1:

1. Using "**man command**" can you provide me the explanations of the output for the following commands:

ls -b, ls -c, ls -d,, ls -z.

Example already given in the above format.

2. Can you explore the following commands on your own:

- whoami, pwd
- cd

- `cd /`
- `cd <space> ..`
- `cd <space> <path>`

(B)

`tree -l -L 1`

`tree -l -L 2`

`tree -l -L 3`

`tree /var/log/apt -La 1`

Explanation:

```

~> tree -d /proc/self/
/proc/self/
|-- attr
|-- cwd -> /proc
|-- fd
| `-- 3 -> /proc/15589/fd
|-- fdinfo
|-- net
| |-- dev_snmp6
| |-- netfilter
| |-- rpc
| | |-- auth.rpcsec.context
| | |-- auth.rpcsec.init
| | |-- auth.unix.gid
| | |-- auth.unix.ip
| | |-- nfs4.idtoname
| | |-- nfs4.nametoid
| | |-- nfsd.export
| | `-- nfsd.fh
| `-- stat
|-- root -> /
`-- task
    `-- 15589
        |-- attr
        |-- cwd -> /proc
        |-- fd
        | `-- 3 -> /proc/15589/task/15589/fd
        |-- fdinfo
        `-- root -> /
27 directories

```

Activity-2:

3. Using “**man command**” can you provide me the explanations of the output for the following commands:

tree -a, tree -d, tree -u,, tree -p.

****[Example already given in the 'ls' command].**

4. Can you explore the following commands on your own:

- ifconfig
- ping
- traceroute
- nmap
- mkdir