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| **for files we will be giving permission: -** |
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| 1.read permission: - only they can be able to read the file |
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| 2.write: - Only modify (modify data)  3. execute:- they can only execute the task |
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| **roles:** - |
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| Owner: - root |
| Groups: -dev,test,hr,IT |
| Others(users):- all the employees |
|  |
| How to give the permission: |
| chmod=the chmod command is **used to change the access mode of a file**.  Syntax:chmod <file-permission> <file name> |
| chmod 777  The command chmod -R 777 / **makes every single file on the system under / (root) have rwxrwxrwx permissions**. This is equivalent to allowing ALL users read/write/execute permissions. |
|  |
| 7:- |
|  |
| 7 7 7 |
| owner group others |
| r+w+x  eg: owner read permission  for group write permission  others execute permission |
|  |
| r—4, w—2, x--1  chmod 421 pavi  where 421 is the file permission given to the file pavi  To check the respecitve network related data  1)ifconfig:  [ifconfig](https://www.tecmint.com/ifconfig-command-examples/) is a command-line interface tool for network interface configuration and is also used to initialize interfaces at system boot time. Once a server is up and running, it can be used to assign an IP Address to an interface and enable or disable the interface on demand.  It is also used to view the IP Address, Hardware / MAC address, as well as MTU (Maximum Transmission Unit) size of the currently active interfaces. ifconfig is thus useful for debugging or performing system tuning  Syntax: ifconfig  2)ping:  [ping](https://www.tecmint.com/block-ping-icmp-requests-to-linux/) (**Packet INternet Groper**) is a utility normally used for testing connectivity between two systems on a network (**Local Area Network** (**LAN**) or **Wide Area Network** (**WAN**)). It uses **ICMP** (**Internet Control Message Protocol**) to communicate to nodes on a network.    Syntax: ping <app-name>  E.g.: ping facebook.com  3)route:  The **route** is a command-line utility for displaying or manipulating the IP routing table of a Linux system. It is mainly used to configure static routes to specific hosts or networks via an interface.  4)netstat:  [netstat](https://www.tecmint.com/20-netstat-commands-for-linux-network-management/) is a command-line tool that displays useful information such as network connections, routing tables, interface statistics, and much more, concerning the Linux networking subsystem. It is useful for network troubleshooting and performance analysis.  Additionally, it is also a fundamental network service debugging tool used to check which programs are listening on what ports.  Syntax: netstat  5)host:  [host command](https://www.tecmint.com/linux-host-command-examples-for-querying-dns-lookups/) is a simple utility for carrying out DNS lookups, it translates hostnames to IP addresses and vice versa  syntax :host <app-name>  eg :host facebook.com  6)dig:    [dig](https://www.tecmint.com/10-linux-dig-domain-information-groper-commands-to-query-dns/) (**domain information groper**) is also another simple DNS lookup utility, that is used to query DNS related information such as A Record, CNAME, MX Record etc,  syntax :dig <app-name>  eg: dig facebook.com  7)last  The **last** command in Linux is used to display the list of all the users logged in and out since the file **/var/log/wtmp**was created. One or more usernames can be given as an argument to display their login in (and out) time and their host-name.  Syntax: last |
| Disk utility   1. Df   The df command primarily checks disk usage on a mounted filesystem. If you don't include a file name, the output shows the space available on all currently mounted filesystems.  Syntax: df [OPTION]... [FILE]...  If you want to run df in its human-readable format, use the --human-readable (-h for short) option:  Syntax: df -hT   1. Parted -l : create, re-organize the block , copy the disk data 2. Fdisk -l:   **fdisk** also known as format disk is a dialog-driven command in Linux used for creating and manipulating disk partition table. It is used for the view, create, delete, change, resize, copy and move partitions on a hard drive using the dialog-driven interface  syntax:fdisk -l   1. Lsblk   lsblk  lists  information  about  all  available or the specified block        devices.  The lsblk command reads the sysfs filesystem and udev  db  to gather  information.  Syntax: *lsblk [options] [device...]* |
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1. blkid

The blkid program is the **command-line interface to working with libuuid(3) library**. It can determine the type of content (e.g. filesystem, swap) a block device holds, and also attributes (tokens, NAME=value pairs) from the content metadata (e.g. LABEL or UUID fields).

Syntax: **blkid** [ **-hlv** ] [ [ **-c** *cachefile* ] **-w** *writecachefile* ] [ **-o** *format* ] [ **-s** *tag* ] [ **-t** *NAME*=*value* ] [ *device ...* ]