man

- *man <command>*
  Display a built-in manual for a command

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ls

Lists all the files and directories inside the current directory in which you are.

- *ls <dirpath>*
  Lists for specified directory path
- *ls -laSh*
  -a to show hidden files, -l to show details, -S to sort by decreasing modified time, -h for human readable size

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pwd

Show directory you are currently working in

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clear

Clears the terminal i.e. no previous command will be visible on the screen now.

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hostname

Shows the name of the system host.

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whoami

This command displays the name with which you are logged in. (username)

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sudo

Allows a regular user to run the programs with the security privileges of a superuser or root.

- *sudo -i*
  Log in as root

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df

- *df -h*
  Display the free disc space of a specific file system.

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du

- *du -h <dirname>*
  This command stands for disk usage and is used to estimate the space usage for a file or directory

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free

- *free -h*
  This command is used to display the free and used memory. -h is used for converting the information (to be displayed) to human-readable form.

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cd

- *cd <dirpath>*
  Change directory to specified path
- *cd ~ (or cd)*
  Go to user home directory
- *cd ..*

Move to one level up directory

- *cd /*
  Move to the root directory

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mv

- *mv <filename> <new file path>*
  It moves the file to the new path specified.
- *mv <oldname> <newname>*
  Rename file command. It changes the name of the file from the old name i.e. the oldname to the newname.

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cp

- *cp [file_name1] [file_name2]*
  Copy the contents of one file to another file
- *cp -r [directory_name1] [directory_name2]*
  Recursively copy the contents of one file to a second file

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vim

- *vim <file_name>*
  Opens file in vim editor

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nano

- *nano <file_name>*
  Opens file in nano editor

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gedit

- *gedit <file_name>*

Opens file in graphical text editor (doesn't work on black window)

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cat

- *cat > filename*
  This command creates a file in the current directory.
- *cat <file_name>*
  This command displays the content in a file.

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touch

- *touch [file_name]*
  Creates a file in the current directory.

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echo

- *echo <text>*
  Outputs entered string as it is.
- *echo $Variable*
  This command displays the environment variable.

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env

This command displays all the environment variables.

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date

This command is used to show the current date and time.

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cal

Shows the calendar of the current month.

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history

This command displays the list of all the typed commands in the current terminal session.

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grep

Search for a specific pattern in a file with grep

- *grep [pattern] [file_name]*

|

The Pipe is a command in Linux that lets you use two or more commands such that output of one command serves as input to the next. In short, the output of each process directly as input to the next one like a pipeline.

- *cat <file_name>* | *grep <text_to_search>*
  Searches for the given string in the file.
- *history* | *grep <command>*
  Searches for the given command in history.

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lsof

- *lsof -i :<port>*
  Find the process/service listening on a particular port.
- *fuser <port>/tcp*
  Find the process/service listening on a particular port.

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kill

- *kill <process_id>*
  Kills a process having the given process_id

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gzip

- *gzip <filename>*
  It is used to compress a file with gzip compression.

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gunzip

- *gunzip <filename.gz>*
  It is used to unzip a file that has gzip compression.

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tar

- *tar cf <my_dir.tar> my_dir*
  It is used to create an uncompressed tar archive.
- *tar xf file*
  It is used to extract the contents of any type of tar archive.

!!

run previous command again

- *sudo !!*
  run previous command with root privilege

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mkdir

- *mkdir <dirname>*
  This command creates a directory.

- *head -n 100 <file_name>*
  Display the first 100 lines of a file
- *tail -n 100 <file_name>*
  Display the last 100 lines of a file

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wc

- *wc <file_name>*
  Show the number of words, lines, and bytes in a file
- *ls <dir_path> | wc -l*
  Shows number of files in the specified directory.

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rm

- *rm <filename>*
  Deletes a file
- *rm -r [directory_name]*
  Removes specified directory recursively.

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rmdir

- *rmdir <dirname>*
  It deletes the specified directory.

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ip

- *ip a*
  Shows network related information and local machine IP address.

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ifconfig

Shows network related information and local machine IP address.

- source [filename]
  Read and execute the file content in the current shell

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nohup

- *nohup [command] &*
  Run a Linux process in the background

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top

This command is used to get the details of all active processes.

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ps aux

This command is used to get the details of all active processes.

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pidof

- *pidof <processname>*
  This command is used to give the process ID of a particular process.

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which

Locates the executable file matching the given command.

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whereis

- *whereis <filename>*
  This command is used to find the location of source/binary file of a command and manuals sections for a specified file in Linux System.

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apt-get (or apt)

This command is used to install and add new packages.

- *apt update*
  To update the repositories
- *apt upgrade*
  To upgrade the already installed packages
- *apt install <package name>*
  To install new package
- *apt autoremove*
  To remove unused, dangling packages

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wget

- *wget [server_file_name]*
  Download a file from a domain

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find

- *find <starting/directory> -name <file/directory name>*
  Find all files and directories related to a particular name

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locate

- *locate [name]*
  Find all files and directories related to a particular name

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ssh

login into a remote Linux machine using ssh

- *ssh username@ip-address(or hostname)*

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scp

- *scp [file_name.txt] username@ip-address(or hostname):<upload_path>*
  Upload file to server.
- *scp username@ip-address(or hostname):<file_path> ./*
  Download file from server

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crontab

- *crontab -e*
  Opens crontab configuration file.

- *sudo su <username>*
  Login as specified username.

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adduser

- *sudo adduser <username>*
  This command is used to add a user.

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chown

- *chown user filename*
  For changing the ownership of a file/directory
- *chown user:group filename*
  change the user as well as group for a file or directory

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chgrp

- *chgrp [group-name] [directory-name]*
  Change directory group

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chmod

- *chmod 777 [file_name] (or chmod a+rwx [file_name])*
  Assign read, write, and execute permission to everyone
- *chmod 764 [file_name] (or chmod u=rwx, g=rw, o=r [file_name])*
  Assign read, write and execute permissions to user, read and write permission to group and read permission to others
- *chmod 210 [file_name] (or chmod u=w, g=x, o-rwx [file_name])*
  Assign write permission to user, execute permission to group and no permission to others

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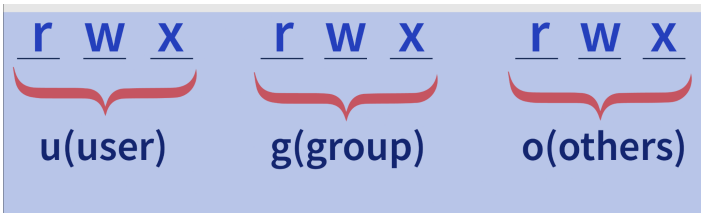
Bonus Section:

File Permissions



There are 3 types of people accessing a file and they are:
User (u)
Group (g)
Others (o)

Also, the access that we want to give to each of them is of three types:
Read (r)
Write (w)
Execute (x)