**LINUX OPERATING SYSTEM**

* uname **=** It will show you in which platform you are currently working.
* uname –a **=** Use to display system information.
* uptime **=** It will show you uptime as we as how many users are login to your system.
* who **=** It will show you the list of user in which when the users are login to your system.
* whoami **=** It will show you current logged user.
* pwd **=** Gives the path of your present working directory.
* mkdir **=** Use for making the new directory.
* rm **=** Use to remove the files.
* rm –r **=** Use to remove the directory recursively/forcefully.
* ls **=** Use to list down the content in the file/folder/directory.
* cd **=** Use to change the directory.
* cd .. **=** Use to go back in exciting directory.
* id **=** Use to know the user id which is logedin || id root
* touch **=** To create an empty file.
* cat **=** create & read files on terminal itself **||** Ctrl+D = To exit from the file.
* sudo shutdown **=** Use to totally turn off the system.
* sudo reboot **=** Use to restart the system.
* sudo apt –get update **=** Use to install the required updates on the system.
* sudo apt install **=** Use to install the packages.
* sudo apt list **=** Use to display all packages.
* sudo apt remove **=** Use to remove the packages.
* vi (file name) **=** Use to create a file in vi editor.

[Enter I - for start writing in the editor, Esc – for command mode & write this for forcefully exit from vi editor- (:x!), DD – For cut the line.]

* cat/more/less (file name) **=** Use to read the small files in terminal itself.
* echo **=** Act like a mirror.
* echo Apple > fruits.txt **=** It will create a file fruit.txt and add apple in it.
* echo Banana >> fruits.txt **=** It will append banana next to apple (in short create a new line there.)
* head **=** Use to read the top 10 lines in any file.
* tail **=** Use to read the bottom 10 lines in any file.
* head/tail -n 5 (file name) **=** Use to read specific lines.
* sort (file name) **=** Use to sorting out from A-Z.
* sort –r (file name) **=** Use for reverse sorting out from Z-A.
* history **=** Use to check all the past commands. || !25 (command no) = To run those command.
* grep –i (info || file name) **=** It will show you all the lines related or which include info word.
* grep –il (word) \* .txt **=** When we did not know the exact file, at that time we can use this attribute.
* grep –v (apple) fruits.txt **=** Use to read all content excluding apple.
* sudo apt list **=** To see all install packages on the system.
* sudo cat/etc/passwd **=** It contains all the username.
* sudo cat/etc/group **=** It store all user’s groups.
* sudo/etc/shadow **=** It contains all the passwords.
* sudo adduser **=** Use to create new user.
* sudo deluser **=** Use to delete the user.
* su (user name) **=** Use to switch from one user to another.
* sudo passwd (user name) **=** Use to reset the password.
* sudo usermod –l (new user || old user) **=** Use to modify the username.
* sudo gpasswd –a (user name || groups) **=** Use to add one user at a time.
* sudo gpasswd –m (user name || groups) **=** Use to add multi user at a time.
* Sudo delgroup (group name) **=** Use for deleting the group.
* Sudo chown (yash || demofile.txt) **=** Use to change the ownership of a file.
* Sudo chgrp (yash || yash) **=** Use to change the ownership of a group.
* cp (contact.txt || call list.txt) **=** Use to create a copy of file at same folder.
* cp –r (demo files || practise folder) **=** Use to copy folder.
* mv (fruits.txt || demo file) **=** Use to move the file from one place to another.
* ln (original.txt || dublicate.txt) **=** Use to create hard-link (means if any chance original file will delete then also it’s duplicate file will alive.)
* ln –s (softlink.txt || softcopy.txt) **=** Use to create soft-link (means if any chance original file will delete then its copy will also die.)
* echo “Hello” **|** tee hello.txt **=** Use to see the output on the terminal as well as it will print into the file.
* cut –b 1-5 (file name) **=** It will give you the text whose index is in between 0-4.
* diff (hello.txt || hii.txt) **=** Use to see the difference between two files.
* zip –r (hello.zip || hello.txt) **=** Use to zip txt file.
* unzip (hello.zip) **=** Use to unzip the file.

**- r w x r w - r - - 1 Ubuntu Ubuntu 43 Aug 26 Fruits.txt**

Read Execute Owner Group File size Date File name

|  |  |  |  |
| --- | --- | --- | --- |
| 0 | - | - | - |
| 1 | - | - | X |
| 2 | - | W | - |
| 3 | - | W | X |
| 4 | R | - | - |
| 5 | R | - | X |
| 6 | R | W | - |
| 7 | R | W | X |

Write

* chmod 777 (File name) **=** Use to change file permission from 775 to 777
* umask **=** (0002) permission of new file by default.
* ps aux **=** Use to see all active processes in Linux system.
* ps **=** We use ps command to check the unique id behind every process.
* pa **=** Shows processes for all users
* pu **=** Display the processes user/owner
* px **=** Show the processes not attached to a terminal.
* ps –e /-ef **=** Use to see the running processes on a secure server.
* top **=** Use to see Linux task manager.
* df /df –h **=** Use to display risk storage.
* free –h **=** To see the status of ram.
* du **=** Disk Utility.
* kill (process-id) **=** Use to kill the running process.
* nohup (free –h) **=** It will basically create a new file and store the output of free –h in it.
* nohup (df –h) **=** It will add the output of df –h below the existing data.
* vmstat **=** Use to see the status of memory.
* vmstat –a **=** It will show the active status.
* wc (Fruits.txt) **=** Use to count the size of a file/ To see the difference between files.
* gzip(data.txt) **=** Use to zip any type of file.
* gunzip(data.txt) **=** Use to decompress the file.
* Tar –c zvf appfolder.tar.gz app-folder/

**-c for folder-zip** **Compress folder-name** **Directory that we have to compress**

**-x for folder-unzip**

* **NETWORKING – LINUX COMMANDS.**
* ping (google.com) **=** This command will ping a host and check if it is responding.
* netstat **=** To see active connections/protocols on a server.
* ifconfig **=** To see network interface.
* tracerought/tracepath
* mtr(my-trace-route) **=** Combination of ping and tracepath.
* nslookup(google.com) **=** On particular website to check the active ip-address.
* telnet **=** Help us to connect with port numbers
* tnc <server name> -port <port> **=** This is test network connection command. It displays diagnostic information for a connection.
* hostname **=** It will show up all the host logged in the system.
* iwconfig **=** To see wireless attachments.
* dig(google.com) **=** It will dig & give detail info of any ip-address.
* arp **=** Use to find the mack address.
* ifplugstatus **=** This command is used to check interfaces are running or not.
* Curl **=** To get response from the server.
* Curl –x get (link)
* wget(copy-link-add) **=** Use to download the packages from online.
* watch –n 5 top
* nmap –v (google.com) **=** Use to scan the website.
* route
* awk ‘{print $1 $2 $3}’ app.log **=** This command will return only the 1st 2nd & 3rd rows of the given data.
* sed ‘/info/p’ app.log
* sed –n ‘/info/p’ app.log
* sed ‘s/info/log/g’ app.log **=** wherever info word occurs it will replace it by log.
* sed –n –e ‘/info/=’ app.log **=** It will basically print the line number which include the info word.
* sed –n –e ‘/info/=’ –e ‘/info/p’ ap.log **=** It will basically print the line number along-with it will print the rows which include the info word.
* sed ‘1,10 s/info/log/g’ app.log **=** It will change info>log for only 1-10 lines from top.
* sed ‘1,10 s/info/log/g;11q’ app.log **=** It will only print 1-10 lines and then it will exit.
* ssh **=** Secure shell use to connect to a server.
* scp **=** Secure copy command use to copy file from your laptop to a server.
* apt-get **=** This Command is used to install, update & remove packages as well as to manage the package repository sources.
* lsof **=** It is used to display a list of all the open files on a Linux system.
* **CRON-TAB –** If we want to run particular command every sec every month at that time to schedule such type of task we use CRON-TAB.
* crontab –l **=** Use to see all active crontab.
* crontab –e **=** Use to create a new crontab or we can edit it.
* Crontab –r **=** Use to delete the crontab.

\* \* \* \* \* touch data.txt /home/Ubuntu

Min Hour D.of.M Month D.of. week Command

* **Note –**
* sudo **=** Super user Permission (Use sudo to do the work forcefully)
* apt **=** Application package manager. (To install online packages)
* ctrl + r **=** Use for reverse search
* -i **=** Use to break the case sensitive rule of Linux.
* **>** **=** Use to Overwrite
* **>>** **=** Use to append
* **||** **=** That means space only.