Linux Command

- **ls →** list the files and directories in the current directory
- **ls dir_name/ →** list the files and directories of dir_names without going inside the dir (ls Python/)
- **ls *.csv →** list of files and dir end with .csv
- **ls x* →** list of files and dir starts with x
- **cd →** change the current directory
- **cd/a/b →** jump directly to the destination directory
- **mkdir →** Create a new directory
  - **mkdir -p mobile/iphone →** to create iphone dir inside mobile dir
- **rmdir →** remove directory
- **pwd →** present working directory
- **cp <file> <dest_path/> →** copy files or directories (cp example.txt backup/)
- **cp ../about.txt . →** copy file from one dir back to present dir

Linux Command

- **cd ..** → move one level back
- **cd ../..** → directly jump two folder back
- **cd /** → move to the root directory
- **clear or ctrl + L** → clears the terminal
- **mv** → move or rename files or directory (mv example.txt backup/)
- **rm** → remove files or directories (rm example.txt)
  - **rm -rf <dir name>** → to remove a dir
  - **-v** → to show verbose/ message of action (rm -v main.py)
- **touch** → create a new empty file or update the timestamp (touch Rahul.txt)
  - **- -no-create** → if file available it'll update timestamp but if file is not available it'll not create file (touch --no-create index.cpp)

Linux Command

- **cat →** concatenate and display files (cat example.txt)
  - **cat > filename →** creates a new file →write anything →press “CTRL + d” to save and close
  - **cat >>filename →** to update file content
  - **cat file1 file2 > file3 →** copy one or more than one file content in a new file (cat index.html main.py > program.c)
- **script →** To start recording Linux terminal action THEN press “CTRL + d” to stop recording (after this every action with their result will be saved into typescript file)
- **head -n <filename> →** read top n line from file (head -5 test.csv)
- **tail -n <filename> →** read bottom n line from file (tail -5 test.csv)
- **sort <filename> →** sorting the file content (sort sortFile.txt)
- **sort -r <filename> →** sorting the file content in reverse order (sort -r sortFile.txt)
- **wc -l <filename> →** count number of lines (wc -l sortFile)

Linux Command

- **find ./ -name <finename>** → find any file (find ./ -name about_cp.txt or find ./ -name *.csv)
- **updated -> locate <filename>** → to find any file (updatedb -> locate paul.csv)
- **;** → to run multiple commands at once (mkdir newdir; cd newdir; touch aws.py)
- **uniq** → show uniq data (sort sortFile | uniq)
  - **"|"** sign is used to combine multiple function one top of other
- **Shuf** → for shuffle the data (shuf mini.csv)
- **Split -l 4 <filename>** → split file content into different files (split -l 4 sortFile)
- **less <file>** → read a file and search for a word (less Sample_Superstore.csv →)
  - "/West" to search top to bottom
  - "?US" to search bottom to up
  - "n" for next
  - "shift + G" for last/END
  - "p" for start
  - "q" to quit

Linux Command

- **grep “Searching word” <filename>** → Search for a word from file (grep “West” Sample_Superstore.csv)
- **egrep “search word1|word2” <filename>** → Search multiple word from a file (egrep “West|US” Sample_Superstore.csv)
- **history | grep <command>** → to show history of similar command (history | grep sort)
- **Vim Editor**
  - Vi <filename> to create a file and open in editor mode (vi newFile)
  - Press “i” for editing/to insert mode (write whatever you want)
  - Press “Esc key” to close editor mode
  - Press “Shift + :” to save file or press “shift + zz” to directly save and close editor
  - Press “wq and enter” to close vim editor
  - Esc mode

Linux Command

- x → single character delete
- 5x → 5 character delete
- dw → delete single word
- 5dw → 5 words delete
- 5dd → 5 line delete
- dd → single line delete
- u → undo
- chrt + r → redo
- shift + zz → save and exit from esc mode

Linux Command

➢ Nano editor

- nano <filename> opens a text editor for editing files with hint
- Ctrl+O: Saves the current file
- Ctrl+X: Exits nano
- Ctrl+G: Displays the help menu
- Ctrl+K: Cuts the current line
- Ctrl+U: Pastes the cut line
- Ctrl+W: Searches for text within the file

Linux Command

- **cmp fileA fileB →** to check two file are identical or not
- **diff -u fileA fileB →** compare and display difference between two files
- **bc →** binary calculator
- **cal →** to show present month calender
- **cal <month> <year> →** to show any past or future calendar (cal or cal 2020 or cal JAN 2030)
- **uptime →** to check how long server has been running
- **More <file> →** read a file page by page
- **man →** manual for a command
- **top →** Details on all Active Processes
- **ls -al or ls -lart or ls -lt or ls -ltr→** Lists files and directories with detailed information like permissions, size, owner, etc.

Linux Command

- **alias emptycmd=”Full command” →** to set alias for any command (alias l=”ls -ltr”
- **help →** help command (ls --help or ls --help | more)
- **chown →** change the owner of a file or directory
- **sudo →** Allows regular users to run programs with the security privileges of the superuser or root
- **tar -czf <compressed folder name> <folder to be compressed> →** to archive folder (tar -czf compress.tar.gz newfolder/)
- **tar -xzf compress.tar.gz →** to decompress/unzip archive folder
- **tar →** create or extract compressed archive files
  - x: extract files from an archive
  - t: list the contents of an archive
  - r: append files to an existing archive
  - z: use gzip compression
  - j: use bzip2 compression
  - cf: create file
  - xf: extract file
  - tar cf archive.tar file1 file2 file3

Linux Command

- **gzip :** compress file
- **gzip -k <filename>** → To compress file and keep original as well
- **gunzip:** decompress compressed files (gunzip file.txt.gz)
- **gzip -d <zipped file>** → To decompress file (gzip -d about.txt.gz)
- **zip myfiles.zip file1 file2** → to compress multiple file in one zipped file
- **unzip myfiles.zip** → to unzip the zipped file
- **unzip -l myfiles.zip** → list the files in zipped file
- **ssh** → connect to a remote server securely (sh username@server_address)
- **scp** → securely copy files between systems (scp myfile.txt user@remotehost:/home?user/)
- **ping** → text network connectivity (ping 8.8.8.8)
- **ifconfig** → display or configure network interfaces
- **netstat** → display network connection information

Linux Command

- **route** → view or configure network routing tables (route [options] [add/delete/show])
- **top** → display system resource usage and processes
- **ps** → display information about running process (ps aux)
- **kill** → terminate a process (kill [PID])
- **df** → display disk space usage
- **du** → display disk usage by file or directory
- **date** → check the date
- **date** → display or set the current date and time
- **customized date** →
  - **date +%D** → for date
  - **date +%T** → for time
  - **date +%H:%M** → for hour:minute

Linux Command

- **whoami** → display the current logged-in user name
- **which** → locate a program or command in the system path (which ls)
- **finger** → display all the information about user
- **uname** → display system information
- **uname** → display system information in detail
- **history** → display a list of previously executed commands
- **echo** → display text or variables to the console (echo 'I need Tshirt from codeswear!')
- **wget <url_of_file>** → to download a file from internet
- **wget -o <any_name> <url_of_file>** → download and save with any_name
- **curl <api_link>** → to call an api (curl http://numbersapi.com/random)
- **apt or yum/dnf** → to install an application (yum install nginx or sudo yum install nginx)

Linux Command

- **rpm -qa | grep <app_name>** → to check if an app is installed or not
- **dnf list installed** → to list all installed packages
- **apt search <package_name>** → to list available packages to install
- yum/dnf list available
- **printenv** → list all existing environment variables
- **awk -F , '{print $2}' file.csv** → to show 2nd column of file.csv (awk –F 'print $1, $2}' file.csv)
- **cut -c1-2 file.txt** → to display starting two characters of file.txt(display sliced characters)
- **sed -n '5p' file.txt** → to display a specific line from a file (sed -n '5p' Sample_Superstore.csv)
- **sed 's/b/business/g' mini.csv** → to print with changes not permanent
- **sed 's/b/business/g' mini.csv>mini1.csv** → to save in another file with permanent changes

Linux Command

- **tr [:lower:] [:upper:] <file.txt →** to convert content lower case to upper case
- **tr -d % <test.txt →** delete % sign from file
- **tr "%" "&" <test.txt →** replace % to & from file
- **truncate -s 100M <filename> →** to extend or shrink size of a file (truncate -s 50M mini or truncate -s 1M mini.csv)
- **fold →** to show row data in column data (echo ABCDE | fold -w1)
- **su <user_name> →** to change user or login as different user in linux
- **sudo →** if you are not root user, then to execute admin commands (sudo yum install httpd)
- **ssh user@hostname →** to access remote linux server
- **scp file user@hostname:/tmp/ →** to copy a file to a remote linux server
- **ls -ltr →** to check permission of file (rwx)
- **chmod a+rwx file.txt →** to modify permissions of a file
  - u – user , g – group , o – other , a – all

Linux Command

- **free or free -h** → to check free RAM space
- **top** → to check % Memory and CPU Utilization
- **du or du -h** → to check disk utilization
- **df or df -h** → to check filesystem available and disk space allocated
- **hostname** → to check hostname
- **lscpu** → to check cpu/core/thread info of your linux server
- **arch** → to check type of architecture of your linux server
- **lsblk** → to see list of storage devices, dist partition
- **uname -a** → to see os name of linux server

USER CREATION

- **useradd <user_name>** → to create a new user on our linux server
- **id <user_name or group_name>** → to check Userid or Groupid of user
- **passwd <user_name>** → to change password for the user (set password)
- **exit** → to exit from the user
- **su** → to login as root user
- **su <user_name>** → to switch user
- **groupadd <group_name>** → to create a new group on our linux server
- **cat /etc/group** → to check group has been created or not
- **userdel <user_name>** → to delete a user
- **groupdel <group_name>** → to delete a group