1. Linux

NOTE:

➢ Shell -> through shell user can talk to the kernel (heart of operating system). It provide interface. We use shell command to talk to the kernel.
➢ GRUB(Grand unified Bootloader) is the bootloader (it run initial file after we power on the CPU) in linux.
➢ Everything starts in linux from root-node (/).
➢ Every thing is stored as a folder and files inside linux in a hierarchy manner.

Steps to login instance in Ec2 to our local system:

Step1: open terminal

Step2: ssh

For checking is it available in system or not

Step3: go to the folder where key folder is save using   cd   command.

Step4: ssh -i keyfoldername username@address

Username and address all are in aws->ec2->instance->connect->sshclient>from bottom

Two types of key

a) Private key: it is use from host side, and download in our system at the time of instance creation.
b) Public key: it is use from server side.

2. Shell command

command	Full meaning	example	Uses
clear			Clear the screen
ls	list		Show files inside the folder
ls -a			Show hidden folder inside the folder
ls -l			Show details about the files
ls -ltr			Show full details about the files
sort folder_name		sort nayan	Sort the file inside folder according to alphabetic (a – z)
diff file1 file2	Difference	diff nayan1.txt nayan2.txt	Compare file
date			Show current date and time
pwd	Present work directory		Show current working directory
touch file_name		touch nayan.txt	Create a empty file according to the extension
cd folder_name	Change document	cd home	Change directory
cd ..			Go to the previous directory
mkdir folder_name	Make directory	mkdir nayan	Make directory
rm file_name	remove	rm nayan.txt	Remove file
rm -r folder_name	-r -> recursively	rm -r nayan	Remove directory
rmdir foldername	Remove directory		
cat filename		cat nayan.txt	Read the data stored in the file without opening the file
zcat file_name		zcat nayan.zip	Read the data of zip file
echo "input_text"		echo "hello nayan"	Print output as hello nayan
echo "input-text" > file_path		echo "hello nayan" > nayan.txt	It print and save output inside the file, in case file not exits it create a new file and save the data
echo "input-text" | tee file_name	Add text to the file	echo "hello nayan" | tee nayan.txt	It add text to the file.
head file_name		head nayan.txt	print starting 10 lines of the file
head -n count file_name		head -n 5 nayan.txt	print first five line from top
tail filename		tail nayan.txt	Print 10 lines from bottom
tail -n count file_name		tail -n 3 nayan.txt	Print 3 line from bottom

tail -f filename		tail -f nayan.txt	Print automatically, if any line added to the file. For (exit we use ctrl + c)
less file_name		less nayan.txt	Show page by page of the file (exit we use q)
more file_name		more nayan.txt	Show more pages at a time
cut -b s1-Sn file_name	(-b -> byte)	cut -b 3-6 nayan.txt	It slice part and print.
cp source_path destination_path	Copy file	cp /home/nayan.txt /desktop/	Copy file (nayan.txt) home to destktop
cp -r source_path destination_path	Copy folder	cp -r /home /desktop/	Copy folder home to desktop
mv source_path destination path	Move file	mv /home/nayan.txt /desktop/	move file (nayan.txt) home to destktop
mv file_name newfile_name	Rename the file	mv nayan.txt nayan1.txt	Rename the file nayan.txt to nayan1.txt
wc fil1,file2,file3,….	Word count	wc nayan.txt	Print number of lines. Number of words, number of bytes in a file or multiple files
ln source_path filename	link	ln /home/nayan.txt tex	Create shortcut of file, it is hard link means if original file deleted then it still present
ln -s source_path filename		ln -s /home/nayan.txt tex	Create shortcut of file, it is hard link means if original file deleted then it automatically deleted present
vi file_name	Vi editor	vi nayan.txt	Open vi editor for modifying data inside the text. (for exist :wq then press enter) (for insert press i for exit from insert press esc button)
vmstat	Virtual state		Show virtual state
vmstat -a			Show all virtual state
uname			Tell us about the name of platform
uptime			Total time of machine (start)
who			Total number of users and its login time.
whoami			Current user
which file_name			Provide path of application or file and its version
id			Gives id of current user
sudo	Supper user do		Access of all permission through super user or root user.
sudo shutdown			Shutdown the machine
sudo shutdown -c			Cancel shutdown

sudo reboot			Reboot the machine