Linux Commands

1. LS Command

What is LS?

ls is a basic Linux command used to list files and directories in the current working directory.

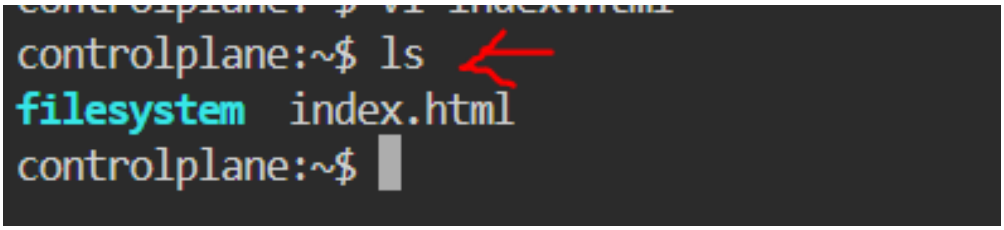
Why LS?

The ls command helps users see what files and folders are present before performing operations like opening, editing, or deleting them.

Purpose

- List files and directories
- View file structure
- Confirm file creation or deletion

Output:



2. touch index.html

What is touch?

touch is a Linux command used to create an empty file.

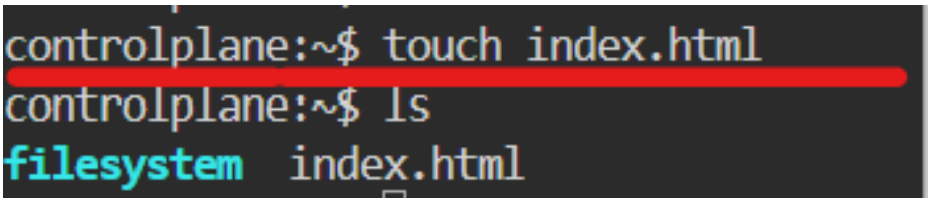
Why touch?

It allows users to quickly create new files without opening an editor.

Purpose

- Create empty files
- Update timestamp of existing files

Output:



3. cat index.html

What is cat?

cat displays the content of a file in the terminal.

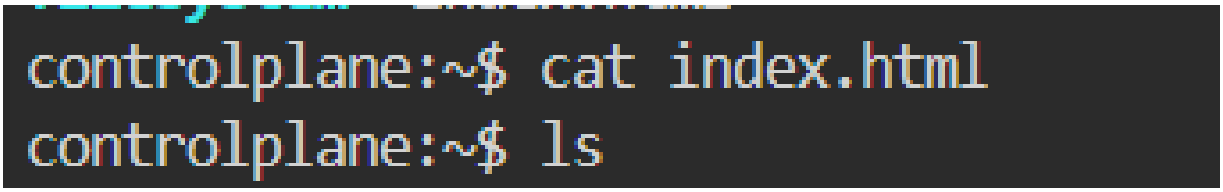
Why cat?

Used to quickly read file contents without opening an editor.

Purpose

- View file contents
- Combine files

Output:



4. vi login.html

What is vi?

vi is a text editor used inside the Linux terminal.

Why vi?

Allows editing files directly from the command line.

Purpose

- Create and edit text files

Output:

5. mv login.html

What is mv?

mv is used to move or rename files and directories.

Why mv?

Helps in organizing files and changing file names.

Purpose

- Rename files
- Move files to another directory

Output:

```
mv index.html
ls
```

6. mkdir wipro-devops-training

What is mkdir?

mkdir creates a new directory (folder).

Why mkdir?

Used to organize files into folders.

Purpose

- Create directories

Output:

```
controlplane:~$ mkdir wipro-devops-training
controlplane:~$ ls
filesystem  index.html  wipro-devops-training
```

7. cd DevOps/

What is cd?

cd changes the current directory.

Why cd?

Used to move between folders in the file system.

Purpose

- Navigate directories

Output:

```
controlplane:~$ cd DevOps
controlplane:~/DevOps$
```

8. pwd

What is pwd?

pwd shows the present working directory.

Why pwd?

Helps users know their exact location in the file system.

Purpose

- Display current directory path

Output:

```
controlplane:~$ pwd
/home/controlplane
```

9. rmdir DevOps/

What is rmdir?

rmdir removes an empty directory.

Why rmdir?

Used to delete folders that are no longer needed.

Purpose

- Remove empty directories

Output:

```
controlplane:~$ rmdir DevOps/
controlplane:~$ ls
filesystem wipro-devops-training
```

10. whoami Command

What is whoami?

whoami is a Linux command used to display the name of the currently logged-in user.

Output:

```
filesystem  index.html  wipro-devops-training
controlplane:~$ whoami
root
```

11. history

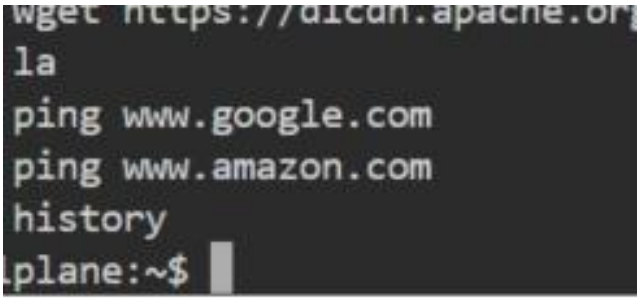
What is history?

history shows previously executed commands.

Why history?

Helps users track and reuse past commands.

Output:



12.PING Command

What is ping?

ping is a Linux command used to check network connectivity between your system and another system (server/website).

Why ping?

It helps to verify whether a server or website is reachable and how fast the network response is.Output:

```
controlplane:~$ ping google.com
PING google.com (172.217.20.46) 56(84) bytes of data.
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=1 ttl=116 time=16.8 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=2 ttl=116 time=12.7 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=3 ttl=116 time=13.3 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=4 ttl=116 time=13.9 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=5 ttl=116 time=15.5 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=6 ttl=116 time=12.7 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=7 ttl=116 time=13.9 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=8 ttl=116 time=17.0 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=9 ttl=116 time=13.0 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=10 ttl=116 time=12.7 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=11 ttl=116 time=13.1 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=12 ttl=116 time=12.5 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=13 ttl=116 time=13.8 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=14 ttl=116 time=15.0 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=15 ttl=116 time=13.0 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=16 ttl=116 time=13.8 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=17 ttl=116 time=12.7 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=18 ttl=116 time=13.2 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=19 ttl=116 time=13.0 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=20 ttl=116 time=15.0 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=21 ttl=116 time=12.9 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=22 ttl=116 time=13.6 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=23 ttl=116 time=13.7 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=24 ttl=116 time=13.1 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=25 ttl=116 time=13.2 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=26 ttl=116 time=12.9 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=27 ttl=116 time=12.8 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=28 ttl=116 time=13.2 ms
64 bytes from par10s09-in-f46.1e100.net (172.217.20.46): icmp_seq=29 ttl=116 time=12.9 ms
```

TOP Command

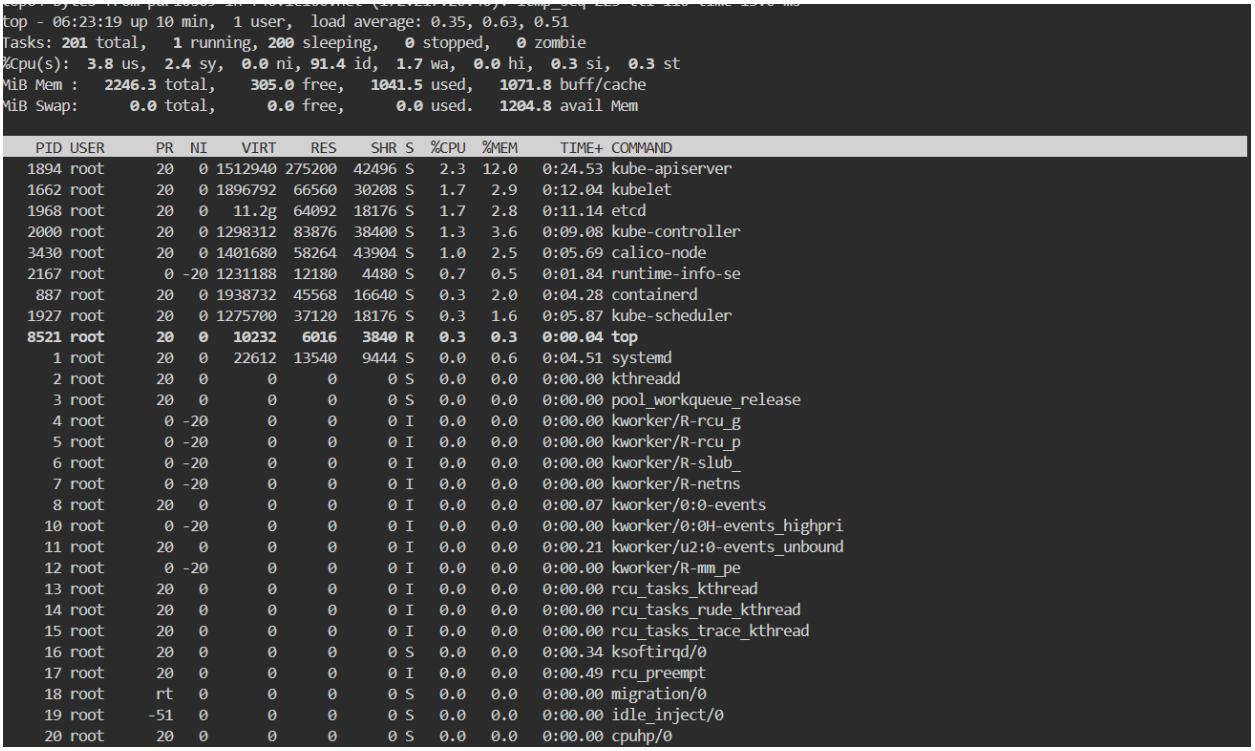
What is top?

top is a Linux command used to display real-time system processes and resource usage.

Why top?

It helps to monitor CPU usage, memory usage, and running processes in real time.

Output:



df Command

What is df?

df stands for Disk Filesystem.

It is a Linux command used to check disk space usage on the system.

Why df?

It helps users understand how much storage space is used and how much is free on each disk partition. This is very important in servers and Kubernetes environments to avoid running out of disk space.

```
controlplane:~$ df
Filesystem     1K-blocks     Used Available Use% Mounted on
tmpfs             230020     2560    227460   2% /run
/dev/vda1       19221248 10319912   8884952  54% /
tmpfs            1150084       84   1150000   1% /dev/shm
tmpfs               5120        0      5120   0% /run/lock
/dev/vda16        901520   119048    719344  15% /boot
/dev/vda15        106832     6250    100582   6% /boot/efi
tmpfs             230016       96    229920   1% /run/user/112
shm                65536        0     65536   0% /run/containerd/io.containerd.grpc.v1.cri/sandboxes/0baaa130602bc11a5cea79e419a498a81e326abe0c8d
72f70d5cb1ccac6cdd12/shm
shm                65536        0     65536   0% /run/containerd/io.containerd.grpc.v1.cri/sandboxes/cf858efe277a34f3ac90626356b575ca71bbc749ccf0
3b4faedb3cbcece32360/shm
shm                65536        0     65536   0% /run/containerd/io.containerd.grpc.v1.cri/sandboxes/6e9274dc047271884901b5154d4f76a17e39e8aab685
615916d0a95117dab281/shm
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/cf858efe277a34f3ac90626356b575ca71bbc749ccf
03b4faedb3cbcece32360/rootfs
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/0baaa130602bc11a5cea79e419a498a81e326abe0c8
d72f70d5cb1ccac6cdd12/rootfs
shm                65536        0     65536   0% /run/containerd/io.containerd.grpc.v1.cri/sandboxes/99c151d1330afffb0f06a34dc7d35eae0aa6f913a806
3515579cf277795b1683/shm
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/99c151d1330afffb0f06a34dc7d35eae0aa6f913a80
63515579cf277795b1683/rootfs
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/6e9274dc047271884901b5154d4f76a17e39e8aab68
5615916d0a95117dab281/rootfs
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/f4db0317012e3eb5239ddf8b37980096e70037f3ea7
2a9245c81ad03793435de/rootfs
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/cbd5a60a621f4b9097923806647106ad7873ff487af
2b9ad93afa2837d0483d3/rootfs
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/bba1544e565c099aab4f7402d575058d714546dfef2
ab43d6c9c686519a22f6c/rootfs
overlay         19221248 10319912   8884952  54% /run/containerd/io.containerd.runtime.v2.task/k8s.io/2e44e5cd5988a7a009de4e786c9addda9e382863fc2
5057d8ef1744159bddfdd/rootfs
tmpfs            2097416       12   2097404   1% /var/lib/kubelet/pods/9854fc42-dbc9-449e-a6ea-8be77d420ada/volumes/kubernetes.io~projected/kube-
```