Linux Commands Every DevOps/Cloud Engineer Should Know!

File **Management**:

- ls: List directory contents.

```
ls -l
```

- cd: Change the current directory.

```
cd /path/to/directory
```

- cp: Copy files or directories.

```
cp source.txt destination.txt
```

- mv: Move or rename files or directories.

```
mv oldname.txt newname.txt
```

- rm: Remove files or directories.

```
rm -rf /path/to/directory
```

- mkdir: Create directories.

```
mkdir new_directory
```

- touch: Create an empty file or update the timestamp of a file.

```
touch newfile.txt
```

File Viewing and Editing:

- cat: Concatenate and display file contents.

```
cat file.txt
```

- bat: use bat to preview files in a formated way (batcat default)

```
bat file.txt
```

- less: View file contents one screen at a time.

```
less file.txt
```

- nano or vi: Edit files.

```
nano file.txt
vi file.txt
```

System Information:

- uname: Print system information.

```
uname -a
```

- top: Display tasks and system resource usage.

```
top
```

- df: Report file system disk space usage.

```
df -h
```

- free: Display memory usage.

```
free -m
```

- uptime: Show how long the system has been running.

```
uptime
```

User Management:

- whoami: Display current username.

```
whoami
```

- id: Display user identity.

```
id
```

- adduser: Add a new user.

```
sudo adduser newusername
```

- passwd: Change user password.

```
passwd username
```

- usermod: Modify a user account.

```
usermod -aG sudo username
```

- deluser/userdel: Remove a user from the system.

```
sudo deluser username
```

Networking:

- ping: Send ICMP ECHO_REQUEST to network hosts.

```
ping google.com
```

- ifconfig: Configure a network interface.

```
ifconfig
```

- netstat: Print network connections, routing tables, interface statistics.

```
netstat -tuln
```

- curl: Transfer data from or to a server.

```
curl http://example.com
```

- ssh: Secure Shell to log into a remote machine.

```
ssh user@hostname
```

Permissions and Ownership:

- chmod: Change file access permissions.

```
chmod 755 script.sh
```

- chown: Change file owner and group.

```
chown user:group file.txt
```

Package Management:

- apt-get: Handle packages on Debian-based systems.

```
sudo apt-get update
sudo apt-get install package-name
```

- yum: Handle packages on Red Hat-based systems.

```
sudo yum update
sudo yum install package-name
```

Logs and Troubleshooting :

- tail: Output the last part of files.

```
tail -f /var/log/syslog
```

- journalctl: Query and display messages from the systemd journal.

```
journalctl -u servicename
```

- dmesg: Print or control the kernel ring buffer.

```
dmesg | grep error
```

Process Management:

- ps: Report a snapshot of current processes.

```
ps aux
```

- kill: Send a signal to a process.

```
kill -9 pid
```

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