

## SYSTEM COMMANDS

**hostname** > shows system hostname  
**uname -a** > linux system information  
**uname -r** > kernel release information  
**uptime** > how long is the system running  
**last reboot** > when was the system last rebooted  
**date** > current date  
**cal** > calendar on display  
**w** > displays who's online  
**whoami** > displays who is logged in  
**man <command>** > manual for the selected command  
**head -n1 etc/issue** > Show distribution info

## PROCESS MANAGEMENT

**ps** > process snapshot  
**ps aux | grep 'ssh'** > find all processes for 'ssh'  
**top** or **htop** > real time processes  
**kill <pid>** > kill process with id <pid>  
**kill <name>** > kill process with name <name>  
**killall <name>** > kill all processes containing <name>

## DISK USAGE

**df -h** > Show free space of mounted filesystems  
**du -sh** > total disk usage on the current directory  
**findmnt** > Target mount point for all filesystems  
**mount <device path> <mount point>** > mount a device  
**umount <device path>** > disconnect a mounted device

## FILE PERMISSIONS

**chmod 777 /folder/subfolder** > set rwx permission for owner/group/everyone  
**chmod 755 /folder/subfolder** > set rwx permission for owner, rx for group and everyone  
**chmod +x <filename>** > set <filename> as executable  
**chmod -x <filename>** > remove executable permission from <filename>  
**chmod a+x <filename>** > assign execute privilege for everyone on this <filename>  
**chmod u+x <filename>** > assign execute privilege for current user on this <filename>  
**chmod --reference=file1 file2** > file2 permission will be set like file1 permission  
**chmod -R 755 directory-name/** > apply 755 permission to all files under a directory  
**chmod u+X \*** > change execute permission only on folders (files not affected)

**chown root <filename>** > change owner to root on <filename> file  
**chown :janostech <filename>** > change group to users on <filename> file  
**chown root:janostech <filename>** > change owner(root) and group(janostech) on <filename> file  
**chown -R root foldername/** > change ownership of directory to root  
**chown -c janostech <file1> <file2>** > change ownership to janostech on <file1> <file2>

## NETWORK

**ip addr** > display all network interfaces and ip addresses  
**ip address add 10.5.5.10 dev enp0s25** > Set IP on enp0s25 to 10.5.5.10  
**ethtool enp0s25** > Show ethernet status on enp0s25 interface  
**ping <host or IP>** > ping host or IP address  
**hostname** > shows system hostname  
**hostname -i** > local ip address  
**netstat -tupl** > listing all active listening ports  
**netstat | grep "ESTABLISHED"** > listing all "ESTABLISHED" connections  
**host google.com** > DNS lookup and reverse lookup on google.com  
**wget <web address to file>** > Download file from the web  
**iw dev** > display wireless interface info  
**iw wlp3s0 link** > display wireless connection info for wlp3s0 interface

## ARCHIVING, COMPRESSION

**tar -cvzf archive\_name.tar.gz directoy\_name/** > create a compressed file of this directory  
**tar -xvzf archive\_name.tar.gz** > extract a compressed file

## INSTALL APPLICATION FROM SOURCE

Download and uncompress (if compressed) files and use the following commands to install  
**./configure**  
**make**  
**make install**

## LOGIN TO REMOTE SYSTEMS (SSH)

**ssh username@10.5.5.10** > Connect to IP with SSH  
**ssh -p 22 username@10.5.5.10** > Connect to IP on port 22 with SSH

## FILE TRANSFER

**scp file1.txt SERVER2:/home/janostech** > secure copy file1.txt to the /home/janostech directory on SERVER2  
**rsync -a /home/janostech /backup/** > synch source (home/janostech) to destination (/backup)