LINUX COMMAND LINE CHEAT SHEET

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1 - SYSTEM INFORMATION

```
uname –a                    # Display Linux system information
uname -r                    # Display kernel release information
cat /etc/redhat-release     # Show which version of redhat installed
uptime                      # Show how long the system has been running + load
hostname                    # Show system host name
hostname -I                 # Display the IP addresses of the host
last reboot                 # Show system reboot history
```

date # Show the current date and time

cal # Show this month's calendar

w # Display who is online

whoami # Who you are logged in as

2 - HARDWARE INFORMATION

Dmesg # Display messages in kernel ring buffer

cat /proc/cpuinfo # Display CPU information

cat /proc/meminfo # Display memory information

free –h # Display free and used memory (-h for human readable,-m for MB, -g for GB.)

lspci –tv # Display PCI devices

lsusb -tv # Display USB devices

dmidecode # Display DMI/SMBIOS (hardware info) from the BIOS

hdparm -i /dev/sda # Show info about disk sda

hdparm -tT /dev/sda # Perform a read speed test on disk sda

badblocks -s /dev/sda # Test for unreadable blocks on disk sda

3 - PERFORMANCE MONITORING AND STATISTICS

Top # Display and manage the top processes

Htop # Interactive process viewer (top alternative)

mpstat 1 # Display processor related statistics

vmstat 1 # Display virtual memory statistics

iostat 1 # Display I/O statistics

tail 100 /var/log/messages # Display the last 100 syslog messages (Use/var/log/syslog for Debian based systems.)

tcpdump -i eth0 # Capture and display all packets on interface eth0

tcpdump -i eth0 'port 80' # Monitor all traffic on port 80 (HTTP)

lsof # List all open files on the system

lsof -u user # List files opened by user

free -h # Display free and used memory (-h for human readable, -m for MB, -g for GB.)

watch df -h # Execute "df -h", showing periodic updates

4 - USER INFORMATION AND MANAGEMENT

id # Display the user and group ids of yourcurrent user.

last # Display the last users who have logged ontothe system.

who # Show who is logged into the system.

w # Show who is logged in and what they are

doing.

groupadd test # Create a group named "test".

useradd -c "John Smith" -m john # Create an account named john, with a comment of "John Smith" and create the user's home directory.

userdel john # Delete the john account.

usermod -aG sales john # Add the john account to the sales group

5 - FILE AND DIRECTORY COMMANDS

ls -al # List all files in a long listing (detailed) format

pwd # Display the present working directory

mkdir directory # Create a directory

rm file # Remove (delete) file rm -r directory # Remove the directory and its contents recursively

rm -f file # Force removal of file without prompting for confirmation

rm -rf directory # Forcefully remove directory recursively

cp file1 file2 # Copy file1 to file2cp -r source directory

destination # Copy source directory recursively to destination. If destination exists, copy source directory into destination, otherwise create destination with the contents of source directory.

mv file1 file2 # Rename or move file1 to file2. If file2 is an existing directory, move file1 into directory file2

ln -s /path/to/file link name # Create symbolic link to linkname

touch file # Create an empty file or update the access and modification times of file.

cat file # View the contents of file

less file # Browse through a text file

head file # Display the first 10 lines of file

tail file # Display the last 10 lines of file

tail -f file # Display the last 10 lines of file and "follow" the file as it grows.

6 - PROCESS MANAGEMENT

Ps # Display your currently running processes

ps –ef # Display all the currently running processes on the system.

ps -ef | grep process name # Display process information for processname

top # Display and manage the top processes

htop # Interactive process viewer (top alternative)

kill pid # Kill process with process ID of pid

killall processname # Kill all processes named processname

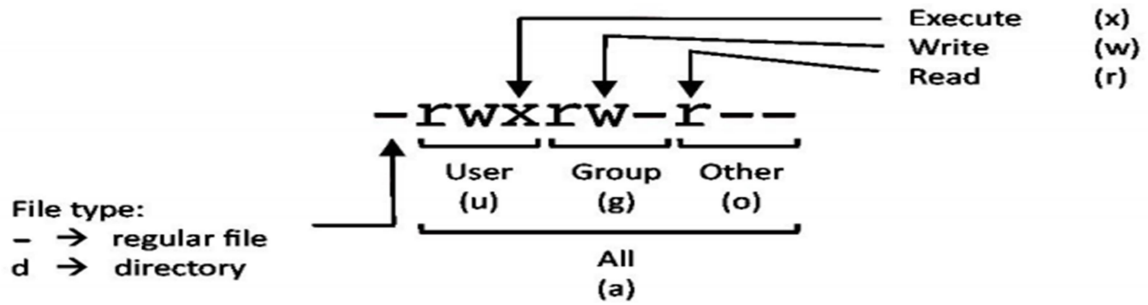
program & # Start program in the background

bg # Display stopped or background jobs

fg # Brings the most recent background job to foreground

fg n # Brings job n to the foreground

7 -FILE PERMISSIONS




```
PERMISSION       EXAMPLE

 U   G   W
rwx rwx rwx      chmod 777 filename  # Use sparingly!
rwx rwx r-x      chmod 775 filename
rwx r-x r-x      chmod 755 filename
rw- rw- r--      chmod 664 filename
rw- r-- r--      chmod 644 filename
```

U = User

G = Group

W = World

r = Read

w = write

x = execute

- = no access

8 - NETWORKING

ifconfig -a # Display all network interfaces and ip address

ifconfig eth0 # Display eth0 address and details

ethtool eth0 # Query or control network driver and hardware settings

ping host # Send ICMP echo request to host

whois domain # Display whois information for domain

dig domain # Display DNS information for domain

dig -x IP_ADDRESS # Reverse lookup of IP_ADDRESS

host domain # Display DNS ip address for domain

hostname -i # Display the network address of the host name.

hostname -I # Display all local ip addresses

wget http://domain.com/file # Download http://domain.com/file

netstat –nutlp # Display listening tcp and udp ports and corresponding programs

9 - ARCHIVES (TAR FILES)

tar cf archive.tar directory # Create tar named archive.tar containing directory.

tar xf archive.tar # Extract the contents from archive.tar.

tar czf archive.tar.gz directory # Create a gzip compressed tar file name archive.tar.gz.

tar xzf archive.tar.gz # Extract a gzip compressed tar file.

tar cjf archive.tar.bz2 directory # Create a tar file with bzip2 compression

tar xjf archive.tar.bz2 # Extract a bzip2 compressed tar file.

10 - INSTALLING PACKAGES

yum search keyword # Search for a package by keyword.

yum install package # Install package.

yum info package # Display description and summary information about package.

rpm -i package.rpm # Install package from local file named package.rpm

yum remove package # Remove/uninstall package.

tar zxvf sourcecode.tar.gzcd sourcecode./configure makemake install # Install software from source code.

11 - SEARCH

grep pattern file # Search for pattern in file

grep -r pattern directory # Search recursively for pattern in directory

locate name # Find files and directories by name find /home/john -name

'prefix*' # Find files in /home/john that start with "prefix".

find /home -size +100M # Find files larger than 100MB in /home 12 - SSH LOGINS

ssh host # Connect to host as your local username.

ssh user@host # Connect to host as user

ssh -p port user@host # Connect to host using port

13 -FILE TRANSFERS

scp file.txt server:/tmp # Secure copy file.txt to the /tmp folder on server

scp server:/var/www/*.html /tmp # Copy *.html files from server to the local /tmp folder.

scp -r server:/var/www /tmp # Copy all files and directories recursively fromserver to the current system's /tmp folder.

rsync -a /home /backups/ # Synchronize /home to /backups/home rsync -avz /home

server:/backups/ # Synchronize files/directories between the local and remote system with compression enabled

14 - DISK USAGE

df -h # Show free and used space on mounted filesystems

df -i # Show free and used inodes on mounted filesystems

fdisk –l # Display disks partitions sizes and types

du –ah # Display disk usage for all files and directories in human readable format

du -sh # Display total disk usage off the current directory

15 - DIRECTORY NAVIGATION

cd .. # To go up one level of the directory tree. (Change into the parent directory.)

cd # Go to the $HOME directory

cd /etc # Change to the /etc director