LINUX COMMAND LINE CHEAT SHEET

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 his tor y
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 mess ages in kernel ring buffer
cat /proc/cpuinfo	# Display CPU information
cat /proc/meminfo	# Display memory information
free -h	# Display free and used memor y (-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	# Per form 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 inter face eth0
tcpdump -i eth0 'por t 80'	# Monitor all traffic on por t 8 0 (HT TP)
lsof	# List all open files on the system
lsof -u user	# List files opened by user
free -h	# Display free and used memor y (-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 onto the 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

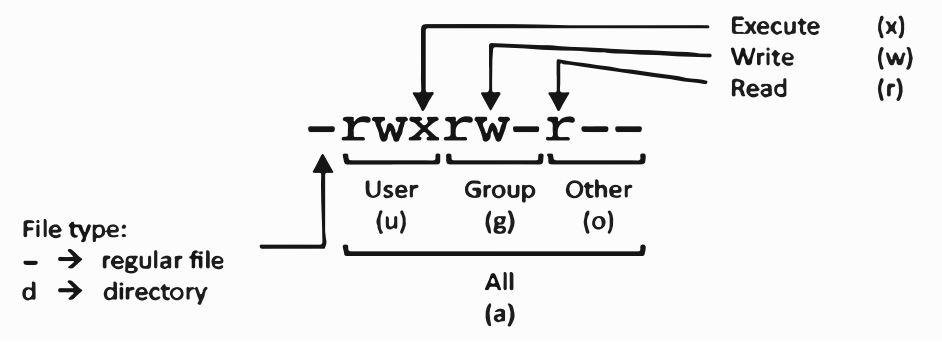
5 - FILE AND DIRECTORY COMMANDS

ls -al	# List all files in a long lis ting (det ailed) format
pwd	# Display the present working directory
mkdir directory	# Create a directory
rm file	# Remove (delete) file
rm -r directory	# Remove the director y and its contents recursively
rm -f file	# Force removal of file without prompting for confirmation
rm -r f directory	# Forcefully remove director y recursively
cp file1 file2	# Copy file1 to file2
cp -r source_directory destination	# Copy source_director y recursively to destination . If destination exists, copy source_director y into dest inat ion ,otherwise create dest inat ion with the contents of source_directory
mv file1 file2	# Rename or move file1 to file2 . If file2 is an exis ting direc tor y, move fi mv file1 file2 le1 into direc tor y file2.
ln -s /path / to/ file linkname	# Create symbolic l ink to l inkname
touch file	# Create an empt y file or update the access and modific ation times of file.
cat file	# View the content s of file
less file	# Browse through a text file
head file	# Display the first 10 lines of file
t ail file	# Display the last 10 lines of file
t ail -f file	# Display the last 10 lines of file and " follow " the file as it grows.

6 - PROCESS MANAGEMENT

ps s	# Display your currently running processes
ps -ef	# Display all the currently running processes on thesystem.
ps -ef | grep processname	# 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 &	# Star t program in the background
bg	# Display s topped 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

LEGEND

U = User
G = Group
W = World
r = Read
w = write
x = execute
- = no access

8 - NETWORKING

ifconfig -a	# Display all net work inter faces and ip address
ifconfig eth 0	# Display eth 0 address and details
ethtool eth 0	# Quer y or control net work driver and hardware settings
ping host	# Send ICMP echo reques t to host
whois domain	# Display whois information for domain
dig domain	# Display DNS information for domain
dig -x IP_ A DDRESS	# Reverse lookup of IP_ A DDRESS
hos t domain	# Display DNS ip address for domain
hos tname - i	# Display the network address of the host name.
hos tname - I	# Display all local ip addresses
wget http://domain.com/file	# Download http: //domain.com/file
net s t at - nutlp	# Display lis tening 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 direc ory	# 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 zxv f sourcecode.tar.gz# Install software from source code
cd sourcecodE
./configure
make
make install
```

11 - SEARCH

grep pattern file	# Search for pattern in file
grep -r pattern directory	# Search recursively for pattern in directry
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:/tm	# 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 from server 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 .. T	# 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 directory