Basic Linux Commands

Command	Description
hostnamectl	Get system information including, operating system, kernel, and release version
date	Display the current system date and time
hostname	Display the hostname of the system
ifconfig	Display the IP and Mac Address of the system
w	Display currently logged in users in the system
top	Display all running processes
ls	List all files and directories in the current working directory
ls -al	List all files and directories including, hidden files and other information like permissions, size, and owner
cd	Change the directory to the home directory
cd ..	Change the directory to one level up
cat filename	Display the content of the file
cat file1 file2 > file3	Combine two files named file1 and file2 and store the output in a new file file3
tail filename	Display the last 10 lines of a file
head filename	Display the first 10 lines of a file
mv oldfile newfile	Rename a file
rm filename	Delete a file
mkdir dirname	Create a directory

Command	Description
rm -rf dirname	Remove a directory
history	Print a history list of all commands
clear	Clear the terminal
shutdown -h now	Shut down the system
reboot	Restart the system
ping host-ip	Check connectivity between two hosts

File Permission Commands

Command	Description
ls -l filename	Check the current permission of any file
chmod 777 filename	Assign full(read, write, and execute) permission to everyone
chmod -R 777 dirname	Assign full permission to the directory and all sub-directories
chmod 766 filename	Assign full permission to the owner, and read and write permission to group and others
chmod -x filename	Remove the execution permission of any file
chown username filename	Change the ownership of a file
chown user:group filename	Change the owner and group ownership of a file
chown -R user:group dirname	Change the owner and group ownership of the directory and all sub-directories

User and Group Management Commands

Command	Description
w	Display all login users
useradd username	Add a new user account
userdel -r username	Delete a user account
usermod [option] username	Change the user account information including, group, home directory, shell, expiration date
usermod -aG groupname username	Add a user to a specific group
groupadd groupname	Create a new group
groupdel groupname	Remove a group
last	Display information of the last login user
id	Display UID and GID of the current user

Process Management Commands

When you run any application in Linux. The application will get a process ID or PID.
Process Management helps you to monitor and manage your application.

Command	Description
ps	Display all active processes
ps -ef | grep processname	Display information of specific process
top	Manage and display all processes in realtime
pstree	Display processes in the tree-like diagram

Command	Description
lsof	List all files opened by running processes
kill pid	Kill a specific process using process ID
killall processname	Kill all processes by name
bg	Display stopped or background jobs
pidof processname	Get the PID of any process

Disk Management Commands

mount /dev/sda1 /mnt	Mount any partition to any directory

Package Management Command

In this section, we will show a list of all commands to install, remove and manage packages in Linux.

Command	Description
apt-get install packagename	Install the package on Debian based distributions
apt-get remove packagename	Remove a package on Debian based distributions
dpkg -l | grep -i installed	Get a list of all packages on Debian based distributions
dpkg -i packagename.deb	Install .deb package
apt-get update	Update the repository on Debian based distributions
apt-get upgrade packagename	Upgrade a specific package on Debian based distributions

Command	Description
apt-get autoremove	Remove all unwanted packages on Debian based distributions
yum install packagename	Install the package on RPM-based distributions
yum remove packagename	Remove a package on RPM-based distributions
yum update	Update all system packages to the latest version on RPM-based distributions
yum list --installed	List all installed packages on RPM-based distributions
yum list --available	List all available packages on RPM-based distributions

Compress and Uncompress Commands

Tar, Zip, and Unzip are the most popular command-line utility in Linux used to compress and uncompress files and directories.

Command	Description
tar -cvf filename.tar filename	Compress a file in the Tar archive
tar -xvf filename.tar	Uncompress a Tar file
tar -tvf filename.tar	List the content of the Tar file
tar -xvf filename.tar file1.txt	Untar a single file from Tar file
tar -rvf filename.tar file2.txt	Add a file to the Tar file
zip filename.zip filename	Compress a single file to a zip
zip filename.zip file1.txt file2.txt file3.txt	Compress multiple files to a zip
zip -u filename.zip file4.txt	Add a file to a zip file
zip -d filename.zip file4.txt	Delete a file from a zip file

Command	Description
unzip -l filename.zip	Display the content of zip archive file
unzip filename.zip	Unzip a file
unzip filename.zip -d /dirname	Unzip a file to a specific directory

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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 from server to the
                                        current system's /tmp folder.

passwd                                  # Change the current user's password.
sudo -i                                 # Switch to the root account with root's environment. (Login
                                        shell.)
visudo                                  # Edit the sudoers configuration file.

uname -a                                # Display Linux system information
uname -r                                # Display kernel release information
cat /etc/redhat-release                 # Show which version of Red Hat installed
lsb_release -a                          # Show which version of Ubuntu installed
uptime                                  # Show how long the system has been running + load
hostname                                # Show system host name
hostname -I                             # Display all local 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
```