

Linux Command Guide

Linux is a powerful operating system used by developers worldwide.

Command line interface is a fundamental part of the system, and mastering it can be a game-changer when working in Linux. This guide provides an overview of some essential commands to help you get started.

 by Maloth Shashank

```
ayank/Study
ayank/Study/
Study$ ls -l

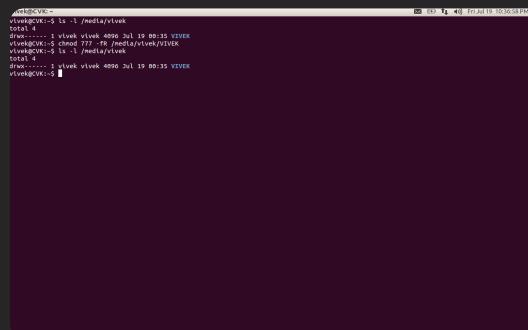
3 23:20 131026
3 23:22 131026.zip
5 2015 2bba7caff301510c5056f12f
0 04:58 config.bin
8 11:41 Entertainment
9 21:06 Games
9 21:12 Nirav
7 10:36 Programing
9 2014 $RECYCLE.BIN
8 21:08 Sem-1
8 16:19 Sem-2
5 2015 Sem-3
9 08:21 Sem-4
7 18:08 Sem-5
4 2015 Sets.pdf
0 23:02 Side Readings
0 10:42 Software
7 19:29 Sohum Backup
9 2014 System Volume Information
3 07:36 trysht
5 2015 vcredist-MSI_vc_red.msi.txt
Study$ █
```

File Management

```
root@vivek: ~# apt-get autoremove -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libfractyl6 os-prober
Use 'apt-get autoremove' to remove them.
The following extra packages will be installed:
  binutils cpp cpp-4.8 dpkg-dev fakeroot g++ g++-4.8 gcc gcc-4.8 gcc-4.8-base
  libalgorithm-diff-perl libalgorithm-merge-perl libatomic1 libc-dev-bin libc6 libcloog-is14 libdpkg-perl
  libasan0 libatomic1 libc-dev-bin libc6 libcloog-is14 libdpkg-perl
  libfakeroot libfile-fcntllock-perl libgcc-4.8-dev libgmp10 libgomp1 libis1l0
  libitm1 libmpc3 libmpfr4 libquadmath0 libstdc++-4.8-dev libstdc++6 libtsan0
  linux-libc-dev make manpages-dev
Suggested packages:
  binutils-doc cpp-doc gcc-4.8-locales debian-keyring g++-multilib
  g++-4.8-multilib gcc-4.8-doc libstdc++-4.8-dbg gcc-multilib autoconf
  automake1.9 libtool flex bison gdb gcc-doc gcc-4.8-multilib libgcc1-dbg
  libgomp1-dbg libitm1-dbg libatomic1-dbg libasan0-dbg libtsan0-dbg
  libquadmath0-dbg libgcc-doc libstdc++-4.8-doc make-doc
The following NEW packages will be installed:
  binutils build-essential cpp cpp-4.8 dpkg-dev fakeroot g++ g++-4.8 gcc
  gcc-4.8 libalgorithm-diff-perl libalgorithm-merge-perl libasan0 libatomic1 libc-dev-bin libc6-dev
  libcloog-is14 libdpkg-dev libfakeroot libfile-fcntllock libtsan0-dbg dev
root@vivek: ~#
```

mv

Moves a file or directory to a new location.



```
vivek@vivek:~$ ls -l /media/vivek
drwxr-xr-x 1 vivek vivek 4096 Jul 19 08:35 VIVEK
drwxr-xr-x 1 vivek vivek 4096 Jul 19 08:35 VIVEK
vivek@vivek:~$ ls -l /media/vivek
drwxr-xr-x 1 vivek vivek 4096 Jul 19 08:35 VIVEK
vivek@vivek:~$ ls -l /tmp
drwxr-xr-x 1 vivek vivek 4096 Jul 19 08:35 VIVEK
vivek@vivek:~$
```

chmod

Changes permissions of a file or directory.

```
root@localhost: ~# ls -l /var
total 72
drwxr-xr-x 18 root root 4096 Jul 19 22:43 .
drwxr-xr-x 2 root root 4096 May 14 00:19 account
drwxr-xr-x 11 root root 4096 Jul 31 22:28 cache
drwxr-xr-x 2 root root 4096 May 14 00:19 cron
drwxr-xr-x 3 root root 4096 May 18 16:03 empty
drwxr-xr-x 2 root root 4096 May 18 16:03 games
drwxr-xr-x 2 root root 4096 May 18 16:03 lib
drwxr-xr-x 38 root root 4096 May 18 16:03 lib
drwxr-xr-x 2 root root 4096 May 18 16:03 local
drwxr-xr-x 14 root root 4096 Sep 14 20:42 log
drwxr-xr-x 1 root root 4096 Jul 19 22:43 mail -> spool/mail
drwxr-xr-x 2 root root 4096 May 18 16:03 opt
drwxr-xr-x 2 root root 4096 May 18 16:03 preserve
drwxr-xr-x 2 root root 4096 May 18 16:03 printers
drwxr-xr-x 1 root root 4096 May 14 00:19 run -> ../run
drwxr-xr-x 14 root root 4096 May 18 16:03 spool
drwxr-xr-x 2 root root 4096 May 18 16:03 var
drwxr-xr-x 2 root root 4096 May 18 16:03 var -> ./run
root@localhost: ~#
```

rm

Removes a file or directory.

```
root@localhost: ~# ls -l /var
total 72
drwxr-xr-x 18 root root 4096 Jul 19 22:43 .
drwxr-xr-x 2 root root 4096 May 14 00:19 account
drwxr-xr-x 11 root root 4096 Jul 31 22:28 cache
drwxr-xr-x 2 root root 4096 May 14 00:19 cron
drwxr-xr-x 3 root root 4096 May 18 16:03 empty
drwxr-xr-x 2 root root 4096 May 18 16:03 games
drwxr-xr-x 2 root root 4096 May 18 16:03 lib
drwxr-xr-x 38 root root 4096 May 18 16:03 lib
drwxr-xr-x 2 root root 4096 May 18 16:03 local
drwxr-xr-x 14 root root 4096 Sep 14 20:42 log
drwxr-xr-x 1 root root 4096 Jul 19 22:43 mail -> spool/mail
drwxr-xr-x 2 root root 4096 May 18 16:03 opt
drwxr-xr-x 2 root root 4096 May 18 16:03 preserve
drwxr-xr-x 2 root root 4096 May 18 16:03 printers
drwxr-xr-x 1 root root 4096 May 14 00:19 run -> ../run
drwxr-xr-x 14 root root 4096 May 18 16:03 spool
drwxr-xr-x 2 root root 4096 May 18 16:03 var
drwxr-xr-x 2 root root 4096 May 18 16:03 var -> ./run
root@localhost: ~#
```

cp

Copies a file or directory to a new location.

```
root@localhost: ~# ls -l /var
total 72
drwxr-xr-x 18 root root 4096 Jul 19 22:43 .
drwxr-xr-x 2 root root 4096 May 14 00:19 account
drwxr-xr-x 11 root root 4096 Jul 31 22:28 cache
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drwxr-xr-x 1 root root 4096 May 14 00:19 run -> ../run
drwxr-xr-x 14 root root 4096 May 18 16:03 spool
drwxr-xr-x 2 root root 4096 May 18 16:03 var
drwxr-xr-x 2 root root 4096 May 18 16:03 var -> ./run
root@localhost: ~#
```

System Information

df

Displays disk space usage.

top

Displays and updates dynamic information about the system's processes, CPU usage, and memory utilization.

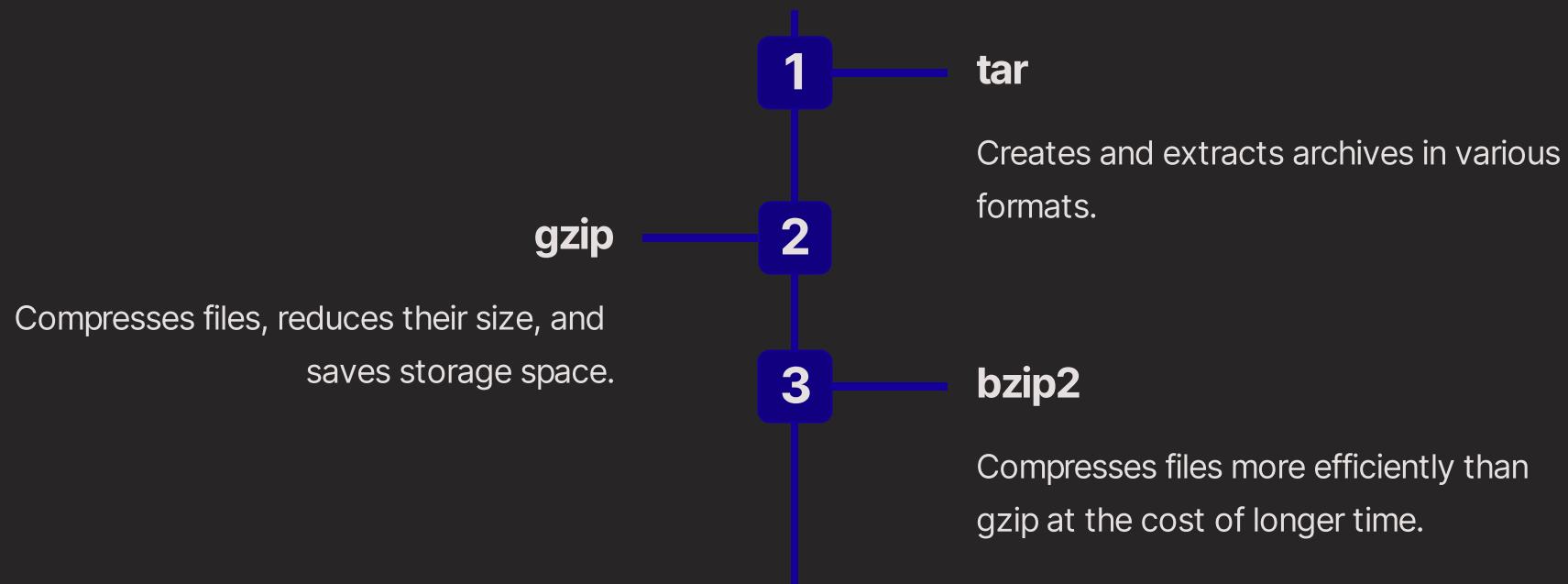
ps

Displays information about active processes in the system.



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Archive Management





System Management

1 **systemctl**

Manages system services.

2 **journalctl**

Views and manages log files.

3 **apt-get**

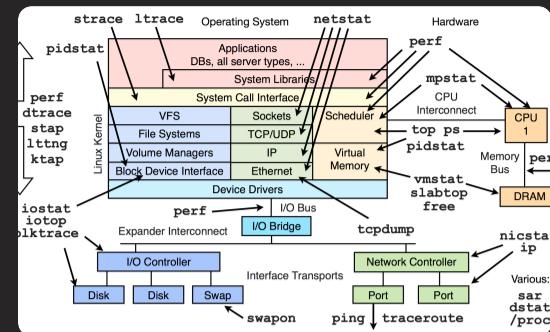
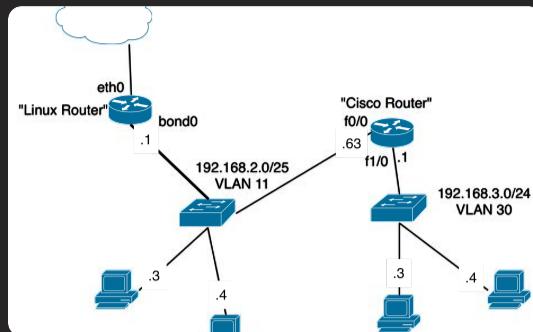
Installs, updates, and removes packages.



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Networking

```
site0 Link encap:IPv6-in-IPv4  
      MTU:1480 Metric:1  
      NOARP  
      RX packets:0 errors:0 dropped:0 overruns:0 frame:0  
      TX packets:0 errors:0 dropped:0 overruns:0 carrier:0  
      collisions:0 queueingdisc:0  
      RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)  
  
isupport@localhost ~]$ sudo /sbin/service network restart  
[sudo] password: No such file or directory  
isupport@localhost ~]$ sudo /sbin/service network restart  
Password:  
Shutting down interface eth0: [ OK ]  
Setting network parameters: [ OK ]  
Bringing up interface loopback: ip_tables: (C) 2000-2002 Netfilter core team  
ip_tables: (C) 2000-2002 Netfilter core team  
Bringing up interface eth0:  
Determining IP information for eth0... failed.  
[FAILED]
```



ifconfig

Displays and configures network interface parameters.

ping

Checks network connectivity by testing delays and packet loss between two points.

netstat

Displays active network connections and their status.new location.

...

rm

Removes a file or directory.

...

cp

Copies a file or directory to a new location.

...

chmod

Changes permissions of a file or directory.

...

:

System Information

df

Displays disk space usage.

...

top

Displays and updates dynamic information about the system's processes, CPU usage, and memory utilization.

...

ps

Displays information about active processes in the system.

...

:

:

Account Management

User Management

- useradd
- userdel
- usermod

Group Management

- groupadd
- groupdel
- groupmod

Password Management

- passwd
- chpasswd

Basic Commands

1 echo

Displays messages or variables on the screen or stores them in files.

2 cat

Displays file contents or combines multiple files into one.

3 find

Searches for files or directories matching a specific criteria in a given location.