

Level Up Linux: 20 Advanced Commands for Mid-Level Users

Ravi Saive | Last Updated: February 27, 2024 | Read Time: 10 mins | [Linux Commands](#) | [56 Comments](#)

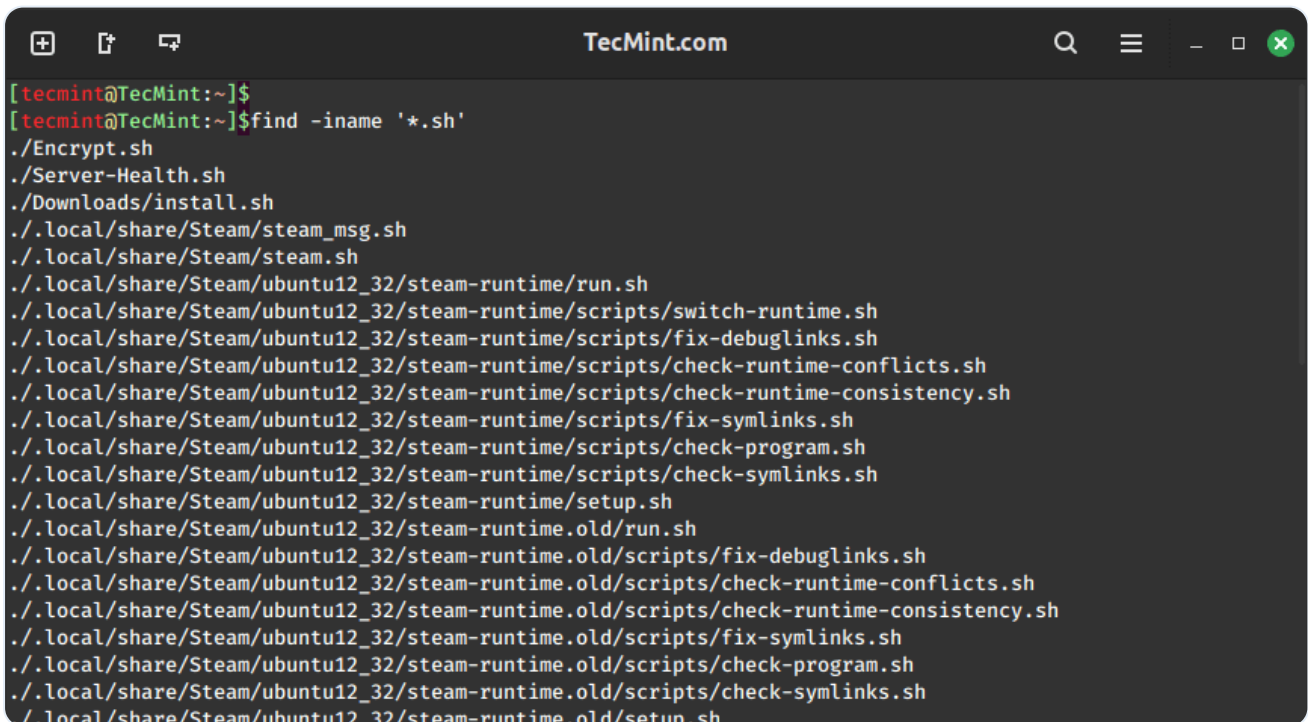
You may have found the first article, '[Useful Commands for Beginners](#)' very helpful, as it was intended for newbies, this article is tailored for middle-level and advanced users.

It covers topics such as customizing search, [understanding processes](#) and how to [terminate them](#), optimizing the [Linux terminal for productivity](#), and compiling C, C++, and Java programs in a Unix-like environment.

21. find Command

The [find command](#) is used to search for files in the given directory, hierarchically starting at the parent directory and moving to sub-directories.

```
find -name *.sh
```



```
TecMint.com
[tecmint@TecMint:~]$
[tecmint@TecMint:~]$ find -iname '*.sh'
./Encrypt.sh
./Server-Health.sh
./Downloads/install.sh
./local/share/Steam/steam_msg.sh
./local/share/Steam/steam.sh
./local/share/Steam/ubuntu12_32/steam-runtime/run.sh
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/switch-runtime.sh
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/fix-debuglinks.sh
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-runtime-conflicts.sh
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-runtime-consistency.sh
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/fix-symlinks.sh
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-program.sh
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-symlinks.sh
./local/share/Steam/ubuntu12_32/steam-runtime/setup.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/run.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/fix-debuglinks.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-runtime-conflicts.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-runtime-consistency.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/fix-symlinks.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-program.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-symlinks.sh
./local/share/Steam/ubuntu12_32/steam-runtime.old/setup.sh
```

Find All Files with Extension

The `-name` option makes the search case sensitive. You can use the `-iname` option to find case-insensitive files with different capitalization patterns in the extension.

The `*` is a wildcard and searches all the files having an extension `.sh` you can use a filename or a part of the file name to customize the output.

```
find -iname *.SH
```

The following command is used to search for all files having extension `".tar.gz"` in the current directory and its subdirectories including mounted devices.

```
find -name *.tar.gz
```

22. grep Command

The [grep command](#) searches a specified file for lines that contain a match to provided strings or words.

In this case, it is used to search for the 'tecmint' user in the '/etc/passwd' file.

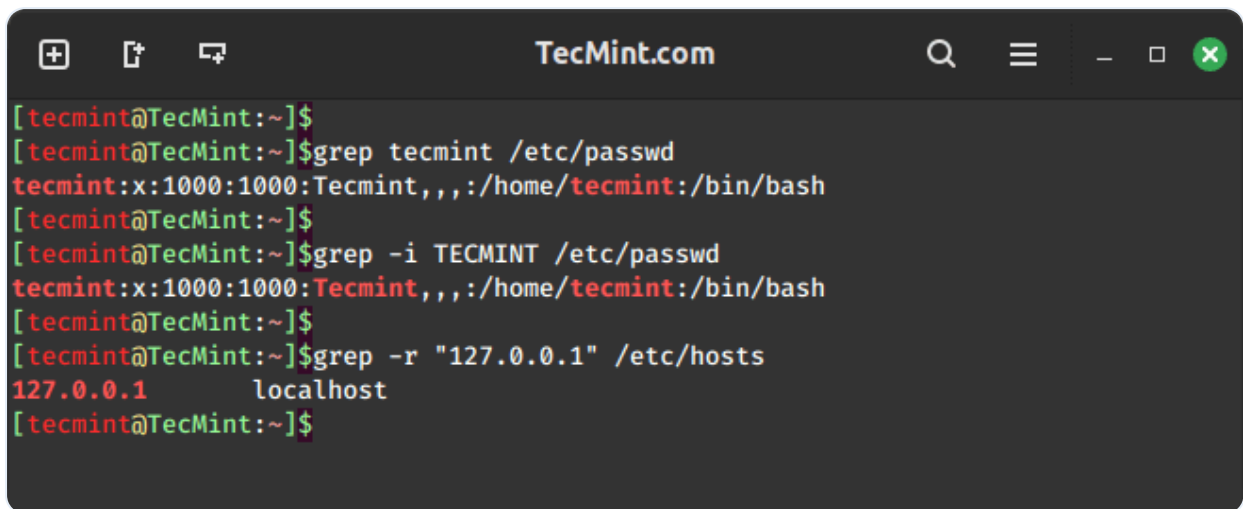
```
grep tecmint /etc/passwd
```

The `-i` option is used to search for the string "TECMINT" (case-insensitive) in the '/etc/passwd' file.

```
grep -i TECMINT /etc/passwd
```

The `-r` option is used to recursively search for the string "127.0.0.1" in the '/etc/hosts' file.

```
grep -r "127.0.0.1" /etc/hosts
```



```
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$grep tecmint /etc/passwd  
tecmin:x:1000:1000:Tecmint,,:/home/tecmin:/bin/bash  
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$grep -i TECMINT /etc/passwd  
tecmin:x:1000:1000:Tecmint,,:/home/tecmin:/bin/bash  
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$grep -r "127.0.0.1" /etc/hosts  
127.0.0.1      localhost  
[tecmint@TecMint:~]$
```

Grep Case-Insensitive String in File

23. man Command

The [man command](#) is the system's manual pager, which provides online documentation for all the possible options with a command and its usage.

Almost all the [Linux commands](#) come with their corresponding manual pages. For example, the following 'man cat' (Manual page for [cat command](#)) and 'man ls' (Manual page for [command ls](#)) display the manual pages for a given command.

```
man cat  
man ls
```

User Commands		User Commands	
CAT(1)	CAT	LS(1)	LS(1)
<p>NAME</p> <p>cat - concatenate files and print on the standard output</p> <p>SYNOPSIS</p> <p>cat [OPTION]... [FILE]...</p> <p>DESCRIPTION</p> <p>Concatenate FILE(s) to standard output.</p> <p>With no FILE, or when FILE is -, read standard input.</p> <p>-A, --show-all equivalent to -vET</p> <p>-b, --number-nonblank number nonempty output lines, overrides -n</p> <p>-e equivalent to -vE</p> <p>-E, --show-ends display \$ at end of each line</p> <p>-n, --number number all output lines</p> <p>Manual page cat(1) line 1 (press h for help or q to quit)</p>		<p>NAME</p> <p>ls - list directory contents</p> <p>SYNOPSIS</p> <p>ls [OPTION]... [FILE]...</p> <p>DESCRIPTION</p> <p>List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.</p> <p>Mandatory arguments to long options are mandatory for short options too.</p> <p>-a, --all do not ignore entries starting with .</p> <p>-A, --almost-all do not list implied . and ..</p> <p>--author with -l, print the author of each file</p> <p>-b, --escape print C-style escapes for nongraphic characters</p> <p>Manual page ls(1) line 1 (press h for help or q to quit)</p>	

[View Command Manual Pages](#)

24. ps Command

The [ps command](#) gives the status of running processes with a unique ID called PID.

```
ps
```

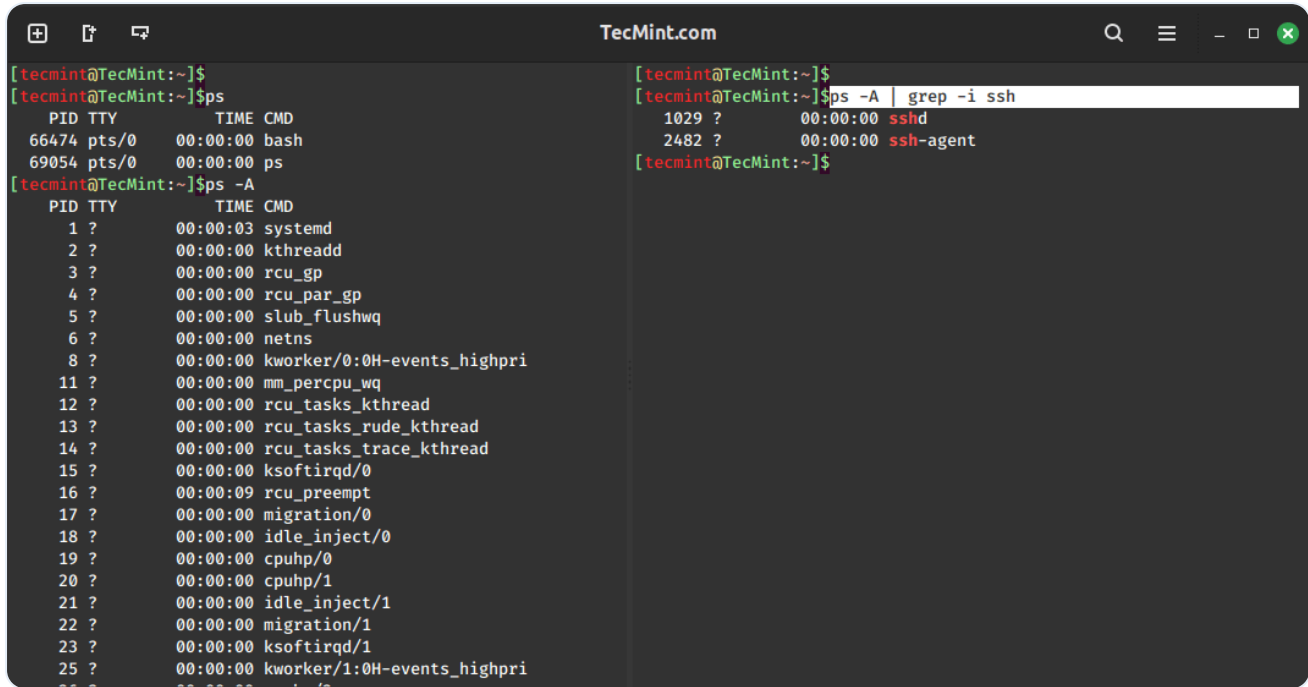
To [list status of all the processes](#) along with process ID and PID, use option **-A**.

```
ps -A
```

The ps command is very useful when you want to know which processes are running or may need PID sometimes, for a [process to be killed](#). You can use it with the grep command to find customized output.

```
ps -A | grep -i ssh
```

Here ps is pipelined with grep command to find customised and relevant output of our need.



```
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$ps  
  PID TTY          TIME CMD  
 66474 pts/0    00:00:00 bash  
 69054 pts/0    00:00:00 ps  
[tecmint@TecMint:~]$ps -A  
  PID TTY          TIME CMD  
    1 ?           00:00:03 systemd  
    2 ?           00:00:00 kthreadd  
    3 ?           00:00:00 rcu_gp  
    4 ?           00:00:00 rcu_par_gp  
    5 ?           00:00:00 slub_flushwq  
    6 ?           00:00:00 netns  
    8 ?           00:00:00 kworker/0:0H-events_highpri  
   11 ?           00:00:00 mm_percpu_wq  
   12 ?           00:00:00 rcu_tasks_kthread  
   13 ?           00:00:00 rcu_tasks_rude_kthread  
   14 ?           00:00:00 rcu_tasks_trace_kthread  
   15 ?           00:00:00 ksoftirqd/0  
   16 ?           00:00:09 rcu_preempt  
   17 ?           00:00:00 migration/0  
   18 ?           00:00:00 idle_inject/0  
   19 ?           00:00:00 cpuhp/0  
   20 ?           00:00:00 cpuhp/1  
   21 ?           00:00:00 idle_inject/1  
   22 ?           00:00:00 migration/1  
   23 ?           00:00:00 ksoftirqd/1  
   25 ?           00:00:00 kworker/1:0H-events_highpri  
[tecmint@TecMint:~]$ps -A | grep -i ssh  
  1029 ?           00:00:00 sshd  
  2482 ?           00:00:00 ssh-agent  
[tecmint@TecMint:~]$
```

List Currently Running Processes

25. kill Command

The [kill command](#) in Linux is crucial for terminating unresponsive or irrelevant processes efficiently. Unlike Windows, where restarting is often required after killing a process, Linux allows you to kill and restart processes without rebooting the entire system.

For example, if you need to terminate the 'firefox' program if it's not responding, you can use the `ps` command along with `grep` to find the process pid and then use the 'kill' command to stop the process.

```
ps -A | grep -i firefox  
kill 69881
```

Every time you re-run a process or start a system, a new pid is generated for each process and you can know about the currently running processes and their pid using the command 'ps'.



Another way to kill the same process is.

```
pgkill apache2
```

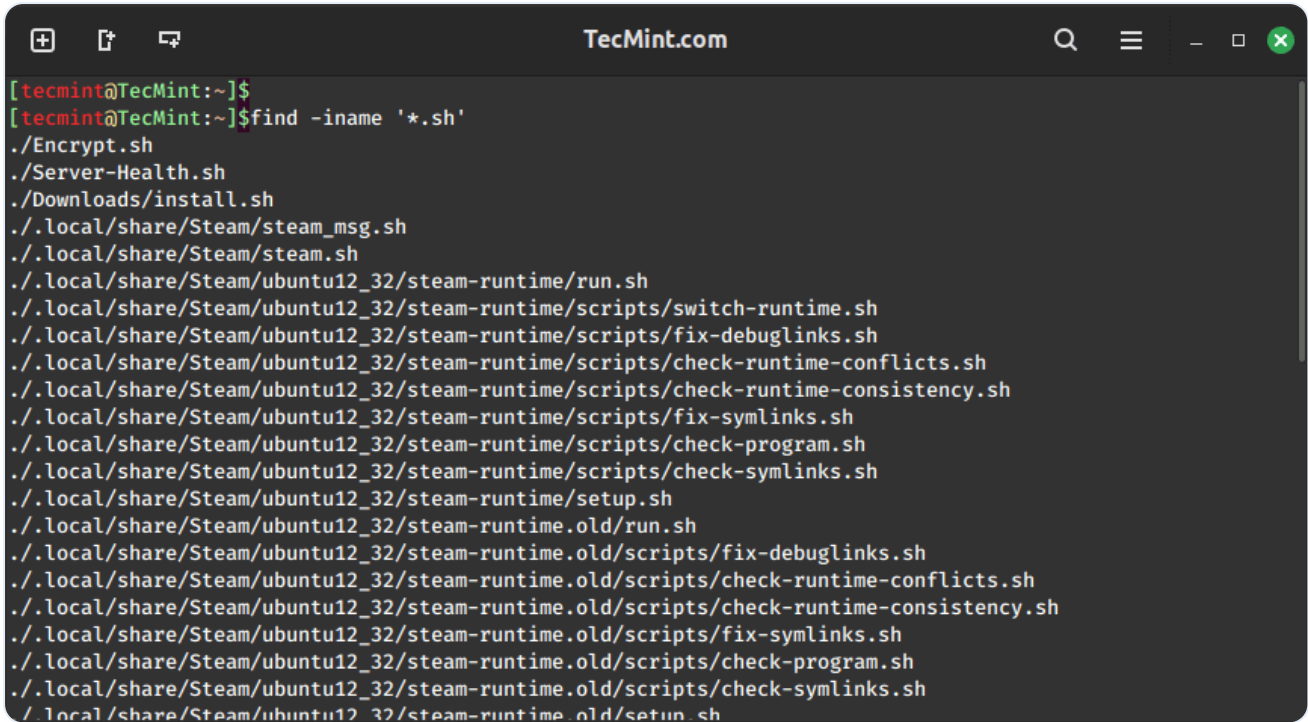
The kill command requires job id/process id for sending signals, whereas, in pkill, you have an option of using a pattern, specifying process owner, etc.

26. whereis Command

The [whereis command](#) is used to locate the Binary, Sources, and Manual Pages of the command.

For example, to locate the Binary, Sources, and Manual Pages of the command 'ls' and 'kill'.

```
whereis ls  
whereis kill
```



```
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$find -iname '*.sh'  
./Encrypt.sh  
./Server-Health.sh  
./Downloads/install.sh  
./local/share/Steam/steam_msg.sh  
./local/share/Steam/steam.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/run.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/switch-runtime.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/fix-debuglinks.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-runtime-conflicts.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-runtime-consistency.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/fix-symlinks.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-program.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/scripts/check-symlinks.sh  
./local/share/Steam/ubuntu12_32/steam-runtime/setup.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/run.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/fix-debuglinks.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-runtime-conflicts.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-runtime-consistency.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/fix-symlinks.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-program.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/scripts/check-symlinks.sh  
./local/share/Steam/ubuntu12_32/steam-runtime.old/setup.sh
```

Find Command Binary Location

The `whereis` command is useful to know where the binaries are installed for manual editing sometimes.

27. `systemctl` Command

The [systemctl command](#) controls the starting, stopping, restarting, enabling, disabling, and checking of the status of a service or program.

```
sudo systemctl start sshd  
sudo systemctl stop sshd  
sudo systemctl restart sshd  
sudo systemctl enable sshd  
sudo systemctl disable sshd  
sudo systemctl status sshd
```

28. `alias` Command

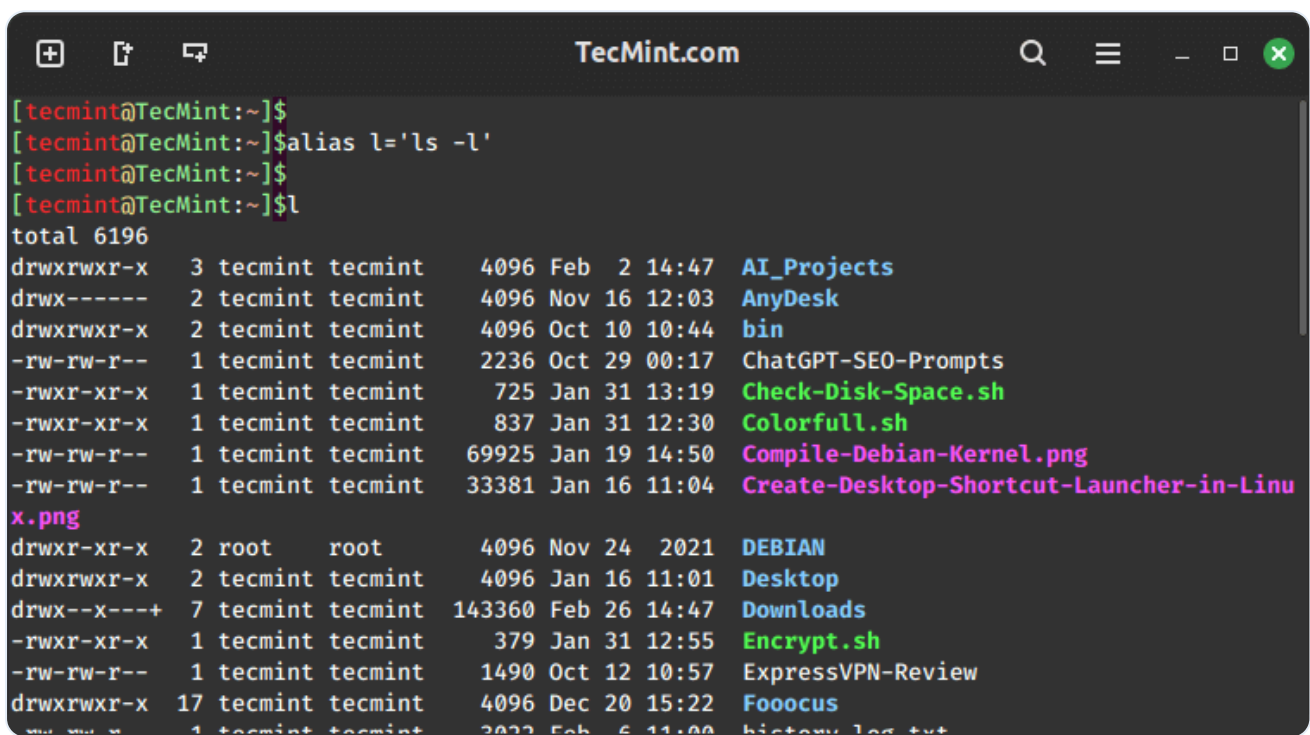
The [alias command](#) is a built-in shell command that lets you assign a name for a long command or [frequently used command](#).

I frequently use the ['ls -l' command](#), which consists of 5 characters, including spaces. Therefore, I created an alias for it as `'l'`.

```
alias l='ls -l'
```

check if it works or not.

```
l
```



The screenshot shows a terminal window titled "TecMint.com" with the following commands and output:

```
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$alias l='ls -l'  
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$l  
total 6196  
drwxrwxr-x  3 tecmint tecmint  4096 Feb  2 14:47 AI_Projects  
drwx----- 2 tecmint tecmint  4096 Nov 16 12:03 AnyDesk  
drwxrwxr-x  2 tecmint tecmint  4096 Oct 10 10:44 bin  
-rw-rw-r--  1 tecmint tecmint  2236 Oct 29 00:17 ChatGPT-SEO-Prompts  
-rwxr-xr-x  1 tecmint tecmint   725 Jan 31 13:19 Check-Disk-Space.sh  
-rwxr-xr-x  1 tecmint tecmint   837 Jan 31 12:30 Colorfull.sh  
-rw-rw-r--  1 tecmint tecmint 69925 Jan 19 14:50 Compile-Debian-Kernel.png  
-rw-rw-r--  1 tecmint tecmint 33381 Jan 16 11:04 Create-Desktop-Shortcut-Launcher-in-Linux.png  
drwxr-xr-x  2 root    root    4096 Nov 24  2021 DEBIAN  
drwxrwxr-x  2 tecmint tecmint  4096 Jan 16 11:01 Desktop  
drwx--x---+ 7 tecmint tecmint 143360 Feb 26 14:47 Downloads  
-rwxr-xr-x  1 tecmint tecmint   379 Jan 31 12:55 Encrypt.sh  
-rw-rw-r--  1 tecmint tecmint  1490 Oct 12 10:57 ExpressVPN-Review  
drwxrwxr-x 17 tecmint tecmint  4096 Dec 20 15:22 Fooocus  
-rw-rw-r--  1 tecmint tecmint  3072 Feb  6 11:00 history.log.txt
```

Create Command Alias in Linux

To remove alias `'l'`, use the following 'unalias' command.

```
unalias l
```

check, if 'l' still is an alias or not.

```
l
```



```
l: command not found
```

Adding a bit of [fun to Linux commands](#) by creating aliases for specific important commands to other important commands.

```
alias cd='ls -l' (set alias of ls -l to cd)
alias su='pwd'   (set alias of pwd to su)
```

Now, imagine the humor when your friend types the [cd command](#), expecting to change directories but instead gets a directory listing. Similarly, if he attempts 'su', all he sees is the location of the working directory.

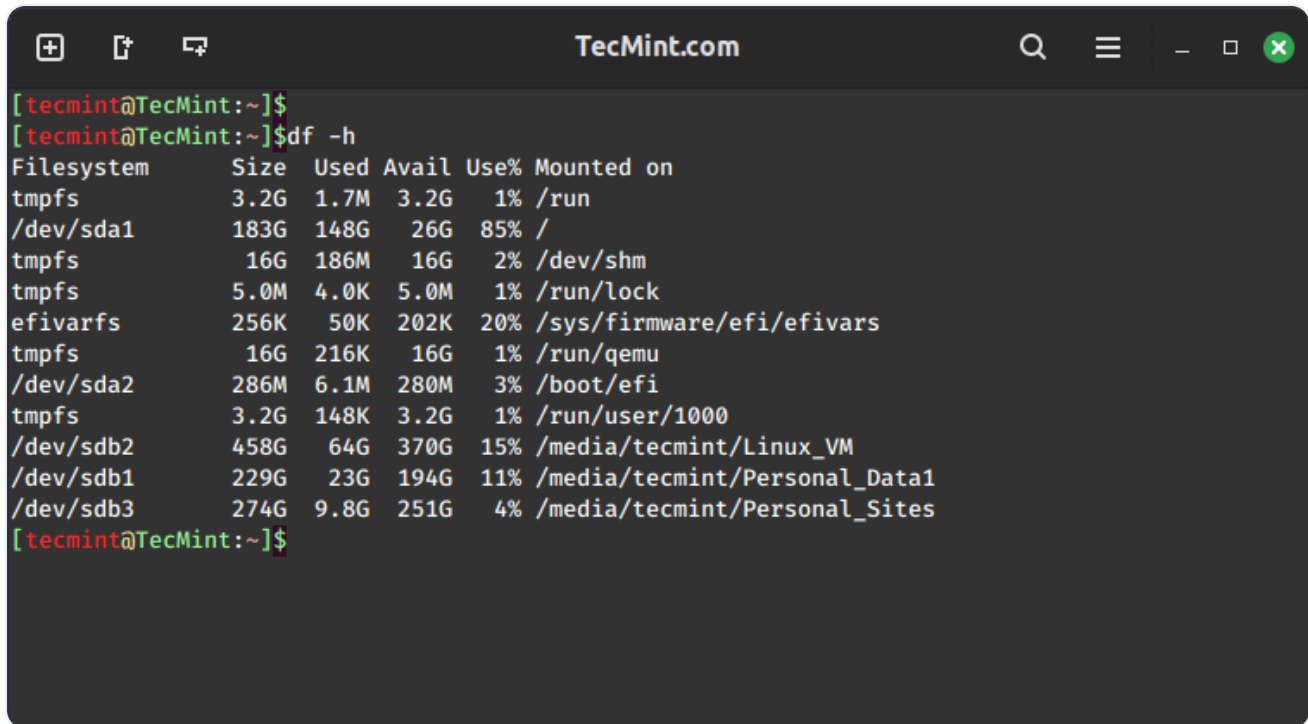
You can remove the alias later using the 'unalias' command, as explained above.

29. df Command

The [df command](#) is used to show the information about disk space usage on the file system. It shows the total, used, and available space on each mounted file system.

```
df -h
```

The `-h` option is used to print the disk space usage in a human-readable format, showing sizes in gigabytes (GB) and megabytes (MB) for each mounted file system on your system.



```
[tecmint@TecMint:~]$  
[tecmint@TecMint:~]$df -h  
Filesystem      Size  Used Avail Use% Mounted on  
tmpfs           3.2G  1.7M  3.2G   1% /run  
/dev/sda1       183G  148G   26G  85% /  
tmpfs           16G   186M   16G   2% /dev/shm  
tmpfs           5.0M   4.0K   5.0M   1% /run/lock  
efivarfs        256K   50K   202K  20% /sys/firmware/efi/efivars  
tmpfs           16G   216K   16G   1% /run/qemu  
/dev/sda2       286M   6.1M  280M   3% /boot/efi  
tmpfs           3.2G  148K   3.2G   1% /run/user/1000  
/dev/sdb2       458G   64G   370G  15% /media/tecmint/Linux_VM  
/dev/sdb1       229G   23G   194G  11% /media/tecmint/Personal_Data1  
/dev/sdb3       274G   9.8G  251G   4% /media/tecmint/Personal_Sites  
[tecmint@TecMint:~]$
```

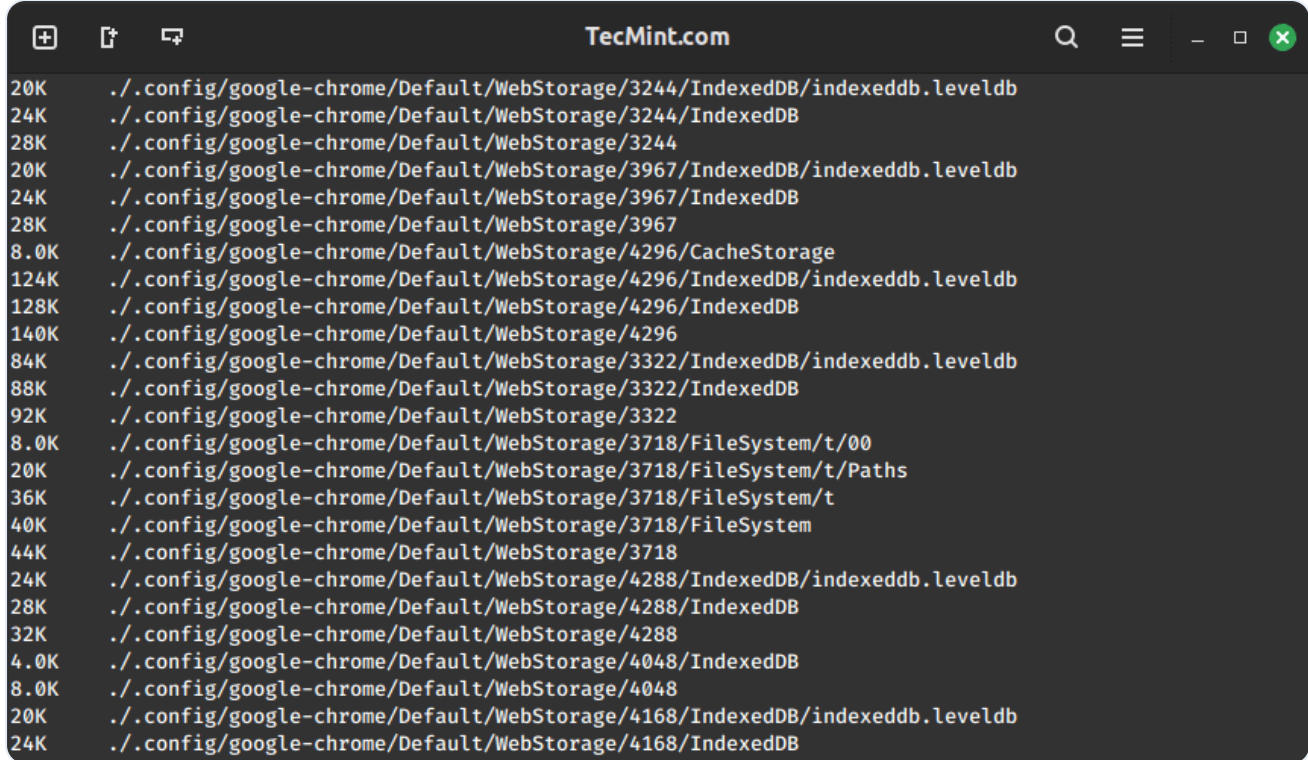
Show Linux Disk Usage

30. du Command

The [du command](#) is used to show the disk space usage of files and directories, which includes the total disk space occupied by a specific file or directory, including the space used by its subdirectories.

```
du -h
```

The `-h` option is used to print the file usage in a human-readable format, showing sizes in gigabytes (GB) and megabytes (MB).



```
20K  ./config/google-chrome/Default/WebStorage/3244/IndexedDB/indexeddb.leveldb
24K  ./config/google-chrome/Default/WebStorage/3244/IndexedDB
28K  ./config/google-chrome/Default/WebStorage/3244
20K  ./config/google-chrome/Default/WebStorage/3967/IndexedDB/indexeddb.leveldb
24K  ./config/google-chrome/Default/WebStorage/3967/IndexedDB
28K  ./config/google-chrome/Default/WebStorage/3967
8.0K ./config/google-chrome/Default/WebStorage/4296/CacheStorage
124K ./config/google-chrome/Default/WebStorage/4296/IndexedDB/indexeddb.leveldb
128K ./config/google-chrome/Default/WebStorage/4296/IndexedDB
140K ./config/google-chrome/Default/WebStorage/4296
84K  ./config/google-chrome/Default/WebStorage/3322/IndexedDB/indexeddb.leveldb
88K  ./config/google-chrome/Default/WebStorage/3322/IndexedDB
92K  ./config/google-chrome/Default/WebStorage/3322
8.0K ./config/google-chrome/Default/WebStorage/3718/FileSystem/t/00
20K  ./config/google-chrome/Default/WebStorage/3718/FileSystem/t/Paths
36K  ./config/google-chrome/Default/WebStorage/3718/FileSystem/t
40K  ./config/google-chrome/Default/WebStorage/3718/FileSystem
44K  ./config/google-chrome/Default/WebStorage/3718
24K  ./config/google-chrome/Default/WebStorage/4288/IndexedDB/indexeddb.leveldb
28K  ./config/google-chrome/Default/WebStorage/4288/IndexedDB
32K  ./config/google-chrome/Default/WebStorage/4288
4.0K ./config/google-chrome/Default/WebStorage/4048/IndexedDB
8.0K ./config/google-chrome/Default/WebStorage/4048
20K  ./config/google-chrome/Default/WebStorage/4168/IndexedDB/indexeddb.leveldb
24K  ./config/google-chrome/Default/WebStorage/4168/IndexedDB
```

Show File Disk Usage

31. rm Command

The [rm command](#) stands for remove, which is used to remove or delete files and directories permanently from the file system.

The basic syntax for removing a file is:

```
rm file
```

The basic syntax for removing a directory is:

```
rm -rf directory
```

The `-r` (recursive, removes directories and their contents) and `-f` (force remove files without prompts for confirmation).

The `"rm -rf"` command is a destructive command. If you accidentally execute it in the wrong directory, all files and the directory itself are permanently lost.

32. echo Command

The [echo command](#) as the name suggests echoes a text on the standard output. It has nothing to do with the shell, nor does the shell read the output of the echo command.

However, in an interactive script, an echo passes the message to the user through the terminal. It is one of the commands that is commonly used in scripting, interactive scripting.

```
echo "Tecmint.com is a very good website"
```

```
Tecmint.com is a very good website
```

Let's create a small interactive bash script that will display a personalized welcome message on the terminal.

```
#!/bin/bash
```

```
echo "Welcome to the Interactive Welcome Script!"
```

```
echo "-----"
```

```
# Prompt the user to enter their name
```

```
echo "Please enter your name:"
```

```
read name
```

```
# Display a personalized welcome message
```


```
echo "Hello, $name! Welcome to the interactive script. Have a great day!"
```

Save this script in a file, for example, `welcome_script.sh`, and make the script executable using the command.

```
chmod +x welcome_script.sh
```

Then, you can run it by typing in the terminal.

```
./welcome_script.sh
```



```
[tecmint@TecMint:~]$vi welcome_script.sh
[tecmint@TecMint:~]$chmod +x welcome_script.sh
[tecmint@TecMint:~]$./welcome_script.sh
Welcome to the Interactive Welcome Script!
-----
Please enter your name:
Ravi Saive
Hello, Ravi Saive! Welcome to the interactive script. Have a great day!
[tecmint@TecMint:~]$
```

Interactive Bash Script

33. passwd Command

The `passwd` command is used to change own password or another user's password when executed by the `sudo` privileges.

For example, to change the password for the current user, simply type:

```
passwd
```

If you have the `sudo` privileges, you can change another user's password by specifying the username:

```
sudo passwd username
```

34. lpr Command

The `lpr` command is used for submitting print jobs to a printer. It sends files to a printer's print queue, allowing users to print documents from the command line.

```
lpr document.txt
```

The 'lpq' command lets you view the status of a printer (whether it's up or not), and the jobs (files) waiting to be printed.

35. cmp Command

The `cmp` command compares two files of any type and writes the results to the standard output. By default, 'cmp' returns 0 if the files are the same; if they differ, the byte and line number at which the first difference occurred is reported.

To provide examples for the `cmp` command, let's consider two files:

```
cat file1.txt
```

```
Hi My name is Tecmint
```

```
cat file2.txt
```

```
Hi My name is tecmint [dot] com
```

Now, let's compare two files and see the output of the command.

```
cmp file1.txt file2.txt
```

```
file1.txt file2.txt differ: byte 15, line 1
```

36. wget Command

The [wget command](#) is a free utility for non-interactive (i.e., can work in the background) download of files from the web. It supports HTTP, HTTPS, FTP protocols, and HTTP proxies.

For example, to download a file named "[Server-Health.sh](#)" from a website, you would use:

```
wget https://www.tecmint.com/wp-content/scripts/Server-Health.sh
```

37. mount Command

The `mount` command is used to mount a filesystem that doesn't mount itself. You need root permission to mount a device.

First, run '`lsblk`' after plugging in your filesystem and identify your device, and note down your device's assigned name.

```
lsblk
```

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINT
sda	8:0	0	931.5G	0	disk	
_sda1	8:1	0	923.6G	0	part	/
_sda2	8:2	0	1K	0	part	
_sda5	8:5	0	7.9G	0	part	[SWAP]
sr0	11:0	1	1024M	0	rom	
sdb	8:16	1	3.7G	0	disk	
_sdb1	8:17	1	3.7G	0	part	

From this screen it was clear that I plugged in a 4 GB pendrive thus '`sdb1`' is my filesystem to be mounted. Become a root to perform this operation and change to the `/dev` directory where all the file system is mounted.

```
su  
cd /dev
```

Create a directory named anything that should be relevant for reference.

```
mkdir usb
```

Now mount filesystem '`sdb1`' to directory '`usb`'.

```
mount /dev/sdb1 /dev/usb
```

Now you can navigate to `/dev/usb` from the terminal or X-windows system and access files from the mounted directory.

38. gcc Command

The gcc is the in-built compiler for the 'c' language in the linux environment. A simple c program, save it on your desktop as Hello.c (remember the '.c' extension is a must).

```
#include <stdio.h>
int main()
{
    printf("Hello world\n");
    return 0;
}
```

Next, compile and run it.

```
gcc Hello.c
./a.out

Hello world
```

On compiling a c program the output is automatically generated to a new file "a.out" and every time you compile a c program same file "a.out" gets modified.

Hence it is good advice to define an output file during compilation and thus there is no risk of overwriting to output file.

```
gcc -o Hello Hello.c
```

Here '-o' sends the output to the 'Hello' file and not 'a.out'.

39. g++ Command

The g++ is the in-built compiler for 'C++', the first object-oriented programming language. A simple C++ program, save it on your desktop as Add.cpp (remember the '.cpp' extension is a must).


```
#include <iostream>

using namespace std;

int main()
{
    int a;
    int b;
    cout<<"Enter first number:\n";
    cin >> a;
    cout <<"Enter the second number:\n";
    cin>> b;
    cin.ignore();
    int result = a + b;
    cout<<"Result is"<<" " <<result<<endl;
    cin.get();
    return 0;
}
```

Next, compile and run it.

```
g++ Add.cpp
./a.out

Enter the first number:
...
...
```

On compiling a C++ program the output is automatically generated to a new file "a.out" and every time you compile a C++ program same file "a.out" gets modified.

Hence it is good advice to define an output file during compilation and thus there is no risk of overwriting to output file.

```
g++ -o Add Add.cpp
./Add
```

Enter the first number:

...
...

40. java Command

Java is one of the world's highly used programming languages and is considered fast, secure, and reliable. Most of the web-based service of today runs on Java.

Create a simple Java program by pasting the below test to a file, named `tecmint.java` (remember the `.java` extension is a must).

```
class tecmint {  
    public static void main(String[] arguments) {  
        System.out.println("Tecmint ");  
    }  
}
```

Next, compile and run it.

```
javac tecmint.java  
java tecmint
```

Almost every distribution comes packed with a `gcc` compiler, major number of distros have inbuilt `G++` and Java compilers, while some may not. You can [apt](#) or [yum](#) the required package.

Don't forget to mention your valuable comment and the type of article you want to see here. I will soon be back with an interesting topic about the [lesser-known facts about Linux](#).

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Ravi Saive

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```
tecmin@tecmin ~/testing $ find . -type f \( -name "*.txt" -o -  
name "*.sh" -o -name "*.c" \)  
./emails.txt  
./script-1.sh  
./header.c  
./examples.txt  
./script.sh  
./expenses.txt
```

Find Multiple Filenames (File Extensions) Using 'find' Command in Linux

How to Search Files by Name or Extension Using find Command



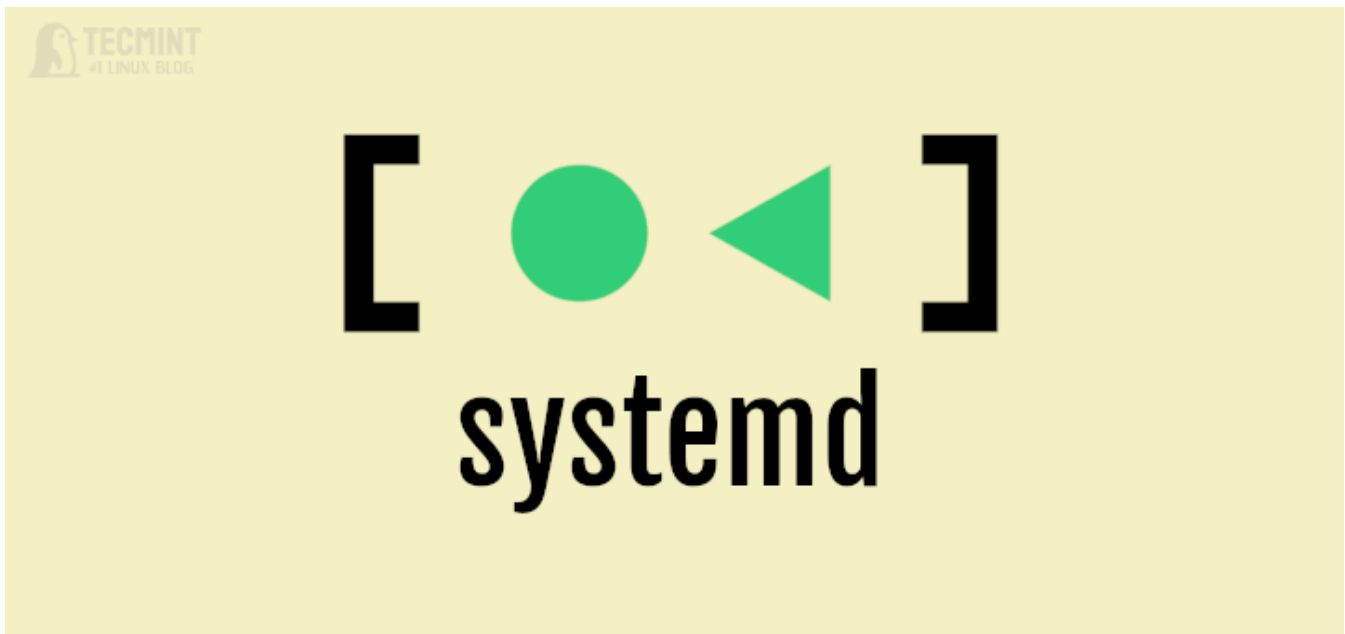
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How to Remove Systemd Services on Linux

```
TecMint.com
ravi@TecMint:~/glibc-2.39/build$
ravi@TecMint:~/glibc-2.39/build$ ../configure --prefix=/usr/local/glibc-2.39
checking build system type... x86_64-pc-linux-gnu
checking host system type... x86_64-pc-linux-gnu
checking for gcc... gcc
checking for suffix of object files... o
checking whether the compiler supports GNU C... yes
checking whether gcc accepts -g... yes
checking for gcc option to enable C11 features... none needed
checking for g++... g++
checking whether the compiler supports GNU C++... yes
checking whether g++ accepts -g... yes
checking for g++ option to enable C++11 features... none needed
checking whether g++ can link programs... yes
checking for sysdeps preconfigure fragments... aarch64 alpha arc arm csky hppa i386 loong
arch m68k microblaze checking for grep that handles long lines and -e... /usr/bin/grep
checking for egrep... /usr/bin/grep -E
mips nios2 orlk powerpc riscv s390 sh checking for grep that handles long lines and -e...
(cached) /usr/bin/grep
```

How to Install and Run Multiple glibc Libraries in Linux

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juan

June 1, 2017 at 9:49 pm

Good tutorial about Linux commands, but you cannot say something like for 'C++', the first object oriented programming language" check the information before, please.

[Reply](#)

namecentos

December 8, 2016 at 1:46 pm

Great tutorial, useful commands and clear explanation. Benefited a lot. Thanks for this article.

[Reply](#)

Kristen Nygaard

November 27, 2015 at 1:42 am

C++ was not the first OO programming language

<https://en.wikipedia.org/wiki/Simula>

[Reply](#)

srinivas

October 9, 2015 at 2:55 pm

i have created 2 files named file1 & file2
in file 1 i had given : abcd
1234
in file2 i had given : abc
123
when i tried to execute cmp file1 file2
it is showing file1 file2 differ line 1, byte 4
why it is not showing difference in line 2 ???

[Reply](#)

lw_leecher

November 9, 2016 at 11:00 pm

You can read the manual "man cmp" if you like, I don't really know how does this command work, maybe and i say maybe it shows you just the first different byte but you can use this command ["diff"](#) or ["sdiff"](#). have a nice day.

[Reply](#)

Anns

May 13, 2018 at 3:25 pm

Because it shows first difference and stops comparing. First difference occurs at first line = abcd

[Reply](#)

Louis Dominguez

September 21, 2015 at 10:49 am

Im glad I found this, most of the articles I read did not help but this got me there and made me learn new commands as well.

thanks for your effort and i hope you keep giving back the IT community!

[Reply](#)

Dragos

September 4, 2015 at 6:35 pm

Systemd new system and service manager with systemctl a new way to manipulate services on Centos7/Redhat7.

ex: systemctl enable/disable/start/restart, etc....network.service.

Great work. Learning a lot from you.

Thanks!!!!!!!!!!!!!!!!!!!!

[Reply](#)

Rakesh Gosai

January 17, 2015 at 3:46 pm

indeed helpfull,

i must appreciate your effort.

[Reply](#)**Karthik**

December 12, 2014 at 6:43 am

Thank you for this article. It really helps us newbies! :)

Avishek, could you please suggest good books/learning material for beginners?

[Reply](#)**Prado**

October 9, 2014 at 1:18 pm

Thanks Avishek,

Great work! I somehow lost touch of some of these commands. Your tutorial is a refresher to me. Keep up the good work

[Reply](#)**Avishek Kumar**

October 9, 2014 at 10:18 pm

Welcome Prado

[Reply](#)

**Avishek Kumar**

October 2, 2014 at 3:06 pm

Thanks

[Reply](#)**Frank**

September 29, 2014 at 6:22 pm

Thanks for the useful commands, I had forgotten some and your article helped me relearn the basics again. Cheers

[Reply](#)**Avishek Kumar**

October 2, 2014 at 3:06 pm

Tecmint is pleased to know this.

[Reply](#)**Dipak**

September 12, 2014 at 3:37 pm

awesome material.

[Reply](#)**Avishek Kumar**

October 2, 2014 at 3:07 pm

Thanks

[Reply](#)**Shamjith**

September 12, 2014 at 4:51 am

This is really helpful, Helps a lot to refresh my knowledge

[Reply](#)**Avishek Kumar**

October 2, 2014 at 3:08 pm

Thanks

[Reply](#)**Srinivas**

August 21, 2014 at 3:28 pm

Really Useful stuff :) Good job :)

[Reply](#)



Avishek Kumar

August 23, 2014 at 3:28 pm

Thanks @ Srinivas for your feedback.

[Reply](#)

Alok

July 25, 2014 at 2:58 am

Nice and Very useful commands!

[Reply](#)



Avishek Kumar

July 25, 2014 at 3:32 pm

Our Pleasure @ Alok

[Reply](#)

arunprasad

July 5, 2014 at 2:42 pm

thank you very much for ur wonderful lecture and I want to know more abt Linux and ethical hacking could you refer the best books and ideas

[Reply](#)**Avishek Kumar**

July 9, 2014 at 12:12 pm

Dear arunprasad,
We work to bring to you Linux How-TO, Linux/Package/Tool Installation, Shell Scripting, and every other Genre of Linux but we at this point of time and in recent future have no plan to deal in Ethical Hacking.

[Reply](#)**Tapan Kumar Samal**

May 21, 2014 at 7:15 pm

Its Very useful commands For Linux User!!!!

[Reply](#)**Avishek Kumar**

July 9, 2014 at 12:13 pm

Dear Tapan,
Thanks for the recognition.

[Reply](#)



sushant

April 28, 2014 at 10:58 pm

Hi Avi,

thanks so much for all ur last Q&A interview series and bash learning series.would u please extend ur series with new how configure DNS & DHCP servers in deep level, i believe we will get so many questions and answers and as of like me new sysadmins have so much issues , trouble to configure this servers :) !!

[Reply](#)



Avishek Kumar

July 9, 2014 at 12:14 pm

Dear sushant,
keep connected we will be coming up with your recommendation very soon and don't forget to remind us, if we forget.

[Reply](#)

James

February 24, 2014 at 8:30 am

very aswsome! thanx for providing lots of informations about linux always!

[Reply](#)



Avishek Kumar

July 9, 2014 at 12:15 pm

Dear James,

Thanks for such a WOW-comment :)

[Reply](#)

Mark Dean

December 30, 2013 at 10:37 pm

Good deal and good stuff (although I'd agree that a lot of this is more beginner than advanced but all good). Regarding file name extensions as in your example of the .sh, that requirement is a Windows/DOS construct and not a *nix one. There is no requirement that a shell script have a .sh at the end. It is a convention that some/many distros recognize and a good practice but it is not required. A script is executable by setting the execute bit and not by its extension. So myscript.sh and myscript both are valid as is myscript.bob or myscript.great—it doesn't matter what the extension is or even if it has one.

Also, in order for it to work, the first line **must** have the so-called she-bang and path to the shell/binary you want to handle the script as in `#!/bin/bash` or `#!/bin/ksh` etc. or other binary if using perl, `#!/usr/bin/perl` or python and so on. Without this it will not work.

Now, maybe distros are getting smarter and assuming a .sh means use the default shell or X is assuming that but it is a bad practice to use assumptions like that.

Also, using `chmod 777` is a dangerous thing unless you are sure that you want **everyone** and **everything** on the system to be able to read/write/execute the file/script. A better way is to use `chmod 755` or `775` or `764` — really it depends on what you want you and others on the system to be able to do. Or simply make it executable via the alpha way—`chmod +x` and leave other permissions as they are. Make sure that you do a `ls -l` and review what the permissions are.

[Reply](#)

Mark Dean

December 30, 2013 at 10:49 pm

Oops, I meant `chmod a+x` to make it executable and leave the other permissions as they are...

[Reply](#)



Avishek Kumar

January 2, 2014 at 3:03 pm

@ Mark Dean, Your concern is very important, and we welcome your views. we did above 777, just to ensure that a newbie dont get trapped into any kind of permission issue.

[Reply](#)

ikarus

December 23, 2013 at 4:05 pm

Thanks Avishek

This one actually works for me. Very useful. Looking forward to the rest.

Regards

IK

(beginner for 10 years)

[Reply](#)

**Avishek Kumar**

December 25, 2013 at 1:37 pm

Welcome @ ikarus, Thanks for your feedback. All of articles of this series has already been published, and is highly appreciated by our reader. Please find the links below, to navigate to other articles of this series.

<https://www.tecmint.com/useful-linux-commands-for-newbies/>

<https://www.tecmint.com/20-advanced-commands-for-linux-experts/>

other suggested readings are:

<https://www.tecmint.com/20-funny-commands-of-linux-or-linux-is-fun-in-terminal/>

<https://www.tecmint.com/chaining-operators-in-linux-with-practical-examples/>

[Reply](#)

**Yaro**

October 31, 2013 at 12:31 pm

Not a perfect list, some of these I'd actually consider beginner-level stuff, but I wanna go over a few things.

"sudo" is not guaranteed to be on a Linux system. It's one of my personal essentials but most Linux distributions outside of those centered almost exclusively on desktops actually don't install it by default. They figure any administrator knows how to become root without sudo. In my opinion its still a good idea to have sudo since it can protect you from yourself. (Heck, you could just do a `su root -c "` for roughly the same effect as sudo.)

gcc and g++ are not built in commands. In fact, a lot of distributions don't install them by default and many others use alternatives like egcc or even llvm (Somehow.). Like sudo, they are on my essentials list.

A shame your daemon commands here are Ubuntu-centric. Upstart is considered almost universally in the *nix sphere to be an abysmal init replacement compared to systemd or openrc. Largely because it has a completely backwards unit dependency system (It makes no sense to launch EVERY unit possible that depends on a unit you launch, instead it makes more sense to NOT launch a particular unit unless explicitly asked for or if required by another unit.), but either way, for a general "Linux" command listing it's bad form to suggest anything more than perhaps `"/etc/init.d/ "` with no command to invoke the service.

[Reply](#)**Ilyas Sharif**

October 29, 2013 at 2:10 am

Useful commands for beginners, you have written "service /etc/init.d/apache2 start". while it should be "/etc/init.d/apache2 start" you can't use service while using /etc/init.d/

[Reply](#)

Author



Ravi Saive

October 29, 2013 at 4:56 pm

Dear Muzhda,

Thanks corrected in write-up.

[Reply](#)

Hitesh Patel

August 28, 2013 at 7:24 am

Very useful commands!

[Reply](#)



Avishek Kumar

January 2, 2014 at 3:01 pm

thanks @ Hitesh Patel, for Your wonderful Feedback.

[Reply](#)**Sabounchi**

August 20, 2013 at 10:25 pm

How can I run and compile visual c on Ubuntu System

[Reply](#)**Avishek Kumar**

July 9, 2014 at 12:19 pm

Dear Sabounchi, I am not sure if it is going to work or not but you may try wine. Although i don't think it is going to work as i have an instinct you might face library issue.

The only option you are left with is to get Virtualbox.

[Reply](#)**Rick Stanley**

August 8, 2013 at 11:07 pm

@Anonymous

All the commands are available in all Linux Distros, with one exception. sudo is not turned on in all Distros as it is for Ubuntu. Please keep in mind that Ubuntu is just

another Linux Distro, and not some unique O/S by itself!

[Reply](#)

Anonymous

August 8, 2013 at 10:49 am

There are good explanations, but it's sad that it is so much Ubuntu-centric.

[Reply](#)



Avishek Kumar

January 2, 2014 at 3:00 pm

@ Anonymous, it is non-centric. All the command runs on all the machine.

[Reply](#)

kenneth karlsson

August 8, 2013 at 9:09 am

Your example of using find will not work. You have to quote the text if you use a meta character.

find . -name abc will work

find . -name *abc will not work

find . -name "*abc" will work

[Reply](#)**tim**

August 8, 2013 at 6:48 am

removing dir should be rmdir not rm -rf imo, or the title should be changed

[Reply](#)**Michael Belisle**

June 4, 2013 at 9:45 am

I tried those example programs. They worked except for the g++ program.

The errors I received:

Add.cpp:1:1: error: 'include' does not name a type

include

^

Add.cpp: In function 'int main()':

Add.cpp:9:11: error: 'cout' was not declared in this scope

cout<< a;

^

Add.cpp:15:44: error: 'endl' was not declared in this scope

cout<<"Result is"<<" "<<result<<endl;

[Reply](#)**Avishek**

June 4, 2013 at 3:42 pm

@ Michael Belisle, sorry! that was an error on our part, we forgot to put pre-processor directive (#).

Please paste the above code again and then compile it and run. Let us know if the problem is solved or still persisting.

[Reply](#)

Mahesh

June 3, 2013 at 7:18 pm

Explanation is too simple to understand. I learnt few more things here. Would love to know more :)

Please keep posting.

[Reply](#)



Avishek Kumar

January 2, 2014 at 2:59 pm

Thanks @ Mahesh, for such a wonderful feedback.

[Reply](#)

ilaiyaraja

May 28, 2013 at 5:46 pm

it's very useful commands for linux users

[Reply](#)



Avishek Kumar

January 2, 2014 at 2:57 pm

Thanks @ ilaiyaraja, for the recognition.

[Reply](#)



Avishek

May 28, 2013 at 3:13 pm

Thanks Mahabir, Your response to our hard-work means a lot and encourages us to write more.

[Reply](#)

Mahabir

May 28, 2013 at 9:32 am

This is one of the best Article on linux commands with very simple examples easily understandable

[Reply](#)

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