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The chmod and chown commands

// TUTORIAL //

Top 50+ Linux Commands You MUST Know

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UNIX/Linux

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Top 50 Linux Commands you must know

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Using Linux command on a regular basis? Today we'll look at 50+ Linux commands you must know! The commands listed below are some of the most useful and most frequently used Linux commands. Let's get right into it!

Top 50 Linux Commands You Must Know as a Regular User

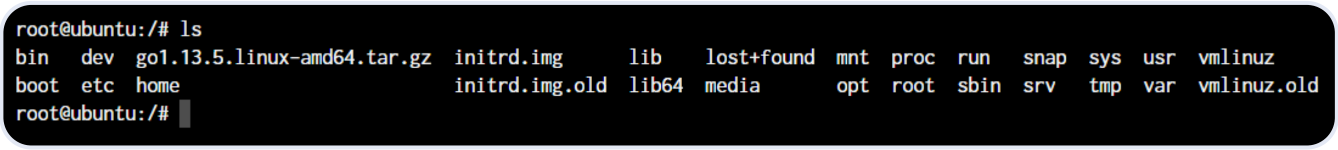
1. ls - The most frequently used command in Linux to list directories
2. pwd - Print working directory command in Linux
3. cd - Linux command to navigate through directories
4. mkdir - Command used to create directories in Linux
5. mv - Move or rename files in Linux
6. cp - Similar usage as mv but for copying files in Linux
7. rm - Delete files or directories
8. touch - Create blank/empty files
9. ln - Create symbolic links (shortcuts) to other files
10. cat - Display file contents on the terminal
11. clear - Clear the terminal display
12. echo - Print any text that follows the command
13. less - Linux command to display paged outputs in the terminal
14. man - Access manual pages for all Linux commands
15. uname - Linux command to get basic information about the OS
16. whoami - Get the active username
17. tar - Command to extract and compress files in Linux
18. grep - Search for a string within an output
19. head - Return the specified number of lines from the top
20. tail - Return the specified number of lines from the bottom
21. diff - Find the difference between two files
22. cmp - Allows you to check if two files are identical
23. comm - Combines the functionality of diff and cmp
24. sort - Linux command to sort the content of a file while outputting
25. export - Export environment variables in Linux
26. zip - Zip files in Linux
27. unzip - Unzip files in Linux
28. ssh - Secure Shell command in Linux
29. service - Linux command to start and stop services
30. ps - Display active processes
31. kill and killall - Kill active processes by process ID or name
32. df - Display disk filesystem information
33. mount - Mount file systems in Linux
34. chmod - Command to change file permissions
35. chown - Command for granting ownership of files or folders
36. ifconfig - Display network interfaces and IP addresses
37. traceroute - Trace all the network hops to reach the destination

43. cal - View a command-line calendar
44. alias - Create custom shortcuts for your regularly used commands
45. dd - Majorly used for creating bootable USB sticks
46. whereis - Locate the binary, source, and manual pages for a command
47. whatis - Find what a command is used for
48. top - View active processes live with their system usage
49. useradd and usermod - Add new user or change existing users data
50. passwd - Create or update passwords for existing users

Now let's dive a little deeper into each of these commands and understand them in more detail. We already have a lot of existing articles for each of those individual commands. For your convenience, we'll add links to all the existing articles, and continue to update the article as new topics are covered.

The ls command in Linux

The ls command is used to list files and directories in the current working directory. This is going to be one of the most frequently used Linux commands you must know of.



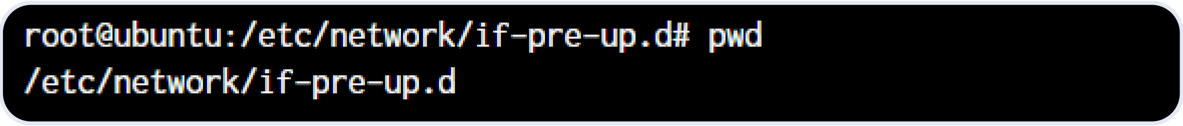
```
root@ubuntu:/# ls
bin   dev  go1.13.5.linux-amd64.tar.gz  initrd.img      lib    lost+found  mnt  proc  run   snap  sys  usr  vmlinuz
boot  etc  home                         initrd.img.old  lib64  media       opt  root  sbin  srv   tmp  var  vmlinuz.old
root@ubuntu:/# 
```

As you can see in the above image, using the command by itself without any arguments will give us an output with all the files and directories in the directory. The command offers a lot of flexibility in terms of displaying the data in the output.

Learn more about the ls command (link to full article)

The pwd command in Linux

The pwd command allows you to print the current working directory on your terminal. It's a very basic command and solves its purpose very well.



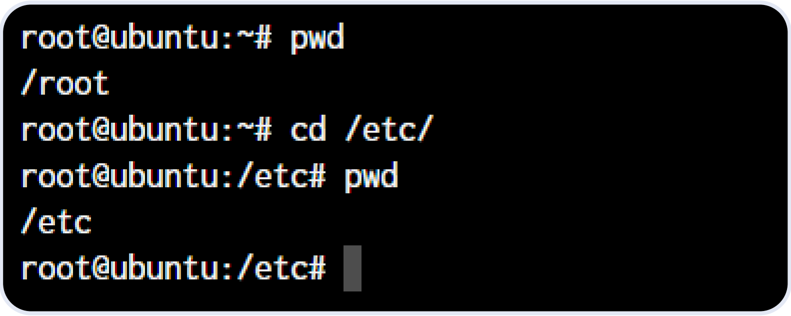
```
root@ubuntu:/etc/network/if-pre-up.d# pwd
/etc/network/if-pre-up.d
```

Now, your terminal prompt should usually have the complete directory anyway. But in case it doesn't, this can be a quick command to see the directory that you're in. Another

While working within the terminal, moving around within directories is pretty much a necessity. The cd command is one of the important Linux commands you must know and it will help you to navigate through directories. Just type cd followed by directory as shown below.

```
root@ubuntu:~# cd <directory path>
```

Copy



```
root@ubuntu:~# pwd
/root
root@ubuntu:~# cd /etc/
root@ubuntu:/etc# pwd
/etc
root@ubuntu:/etc#
```

As you can see in the above command, I simply typed cd /etc/ to get into the /etc directory. We used the pwd command to print the current working directory.

The mkdir command in Linux

The mkdir command allows you to create directories from within the terminal. The default syntax is mkdir followed by the directory name.

```
root@ubuntu:~# mkdir <folder name>
```

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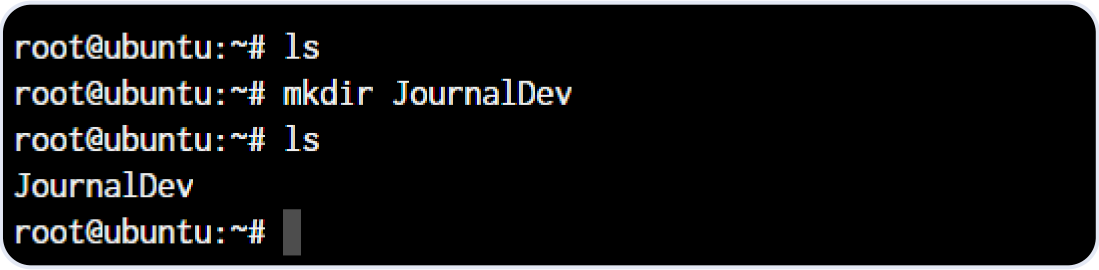


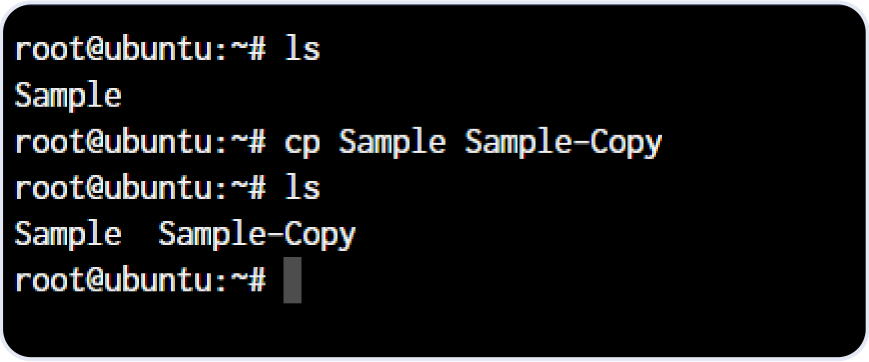
```
root@ubuntu:~# ls
root@ubuntu:~# mkdir JournalDev
root@ubuntu:~# ls
JournalDev
root@ubuntu:~#
```

As you can see in the above screenshot, we created the JournalDev directory with just this simple command.

Learn more about the mkdir command (Link to article)

```
root@ubuntu:~# cp <source> <destination>
```

Copy

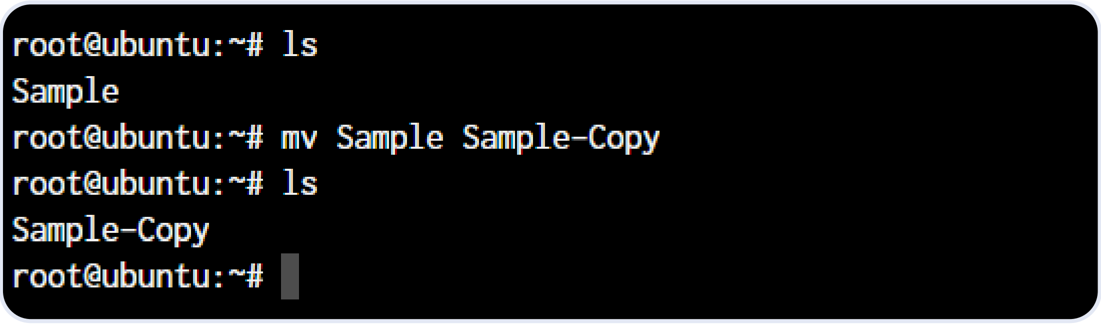


```
root@ubuntu:~# ls
Sample
root@ubuntu:~# cp Sample Sample-Copy
root@ubuntu:~# ls
Sample  Sample-Copy
root@ubuntu:~#
```

In the above command, we created a copy of the file named Sample. Let's see how what happens if we use the mv command in the same manner. For this demonstration, I'll delete the Sample-Copy file.

```
root@ubuntu:~# mv <source> <destination
```

Copy



```
root@ubuntu:~# ls
Sample
root@ubuntu:~# mv Sample Sample-Copy
root@ubuntu:~# ls
Sample-Copy
root@ubuntu:~#
```

In the above case, since we were moving the file within the same directory, it acted as rename. The file name is now changed.

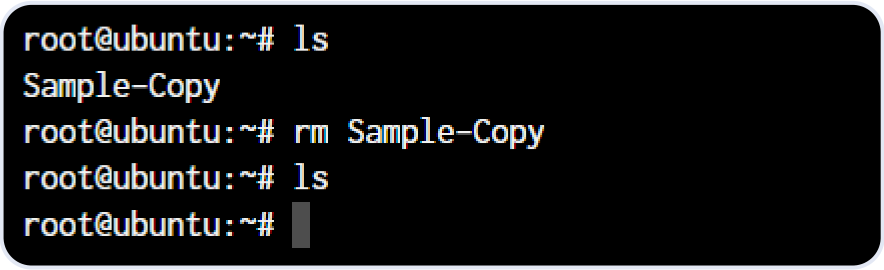
Learn more about the cp command (Link to article) and mv command (Link to article).

The rm command in Linux

In the previous section, we deleted the Sample-Copy file. The rm command is used to delete files and folders and is one of the important Linux commands you must know.

```
root@ubuntu:~# rm <file name>
```

Copy



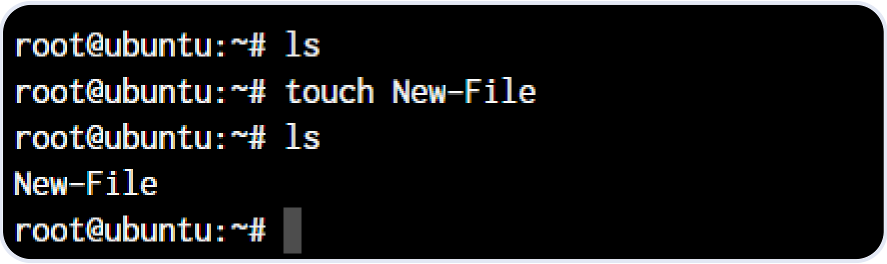
```
root@ubuntu:~# ls
Sample-Copy
root@ubuntu:~# rm Sample-Copy
root@ubuntu:~# ls
root@ubuntu:~#
```

To delete a directory, you have to add the -r argument to it. Without the -r argument, rm command won't delete directories.

The touch command in Linux

To create a new file, the touch command will be used. The `touch` keyword followed by the file name will create a file in the current directory.

```
root@ubuntu:~# touch <file name>
```

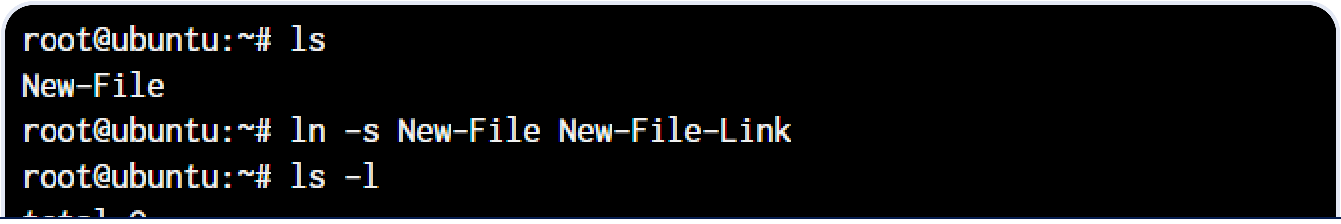


```
root@ubuntu:~# ls
root@ubuntu:~# touch New-File
root@ubuntu:~# ls
New-File
root@ubuntu:~#
```

The ln command in Linux

To create a link to another file, we use the ln command. This is one of the important Linux commands that you should know if you're planning to work as a Linux administrator.

```
root@ubuntu:~# ln -s <source path> <link name>
```



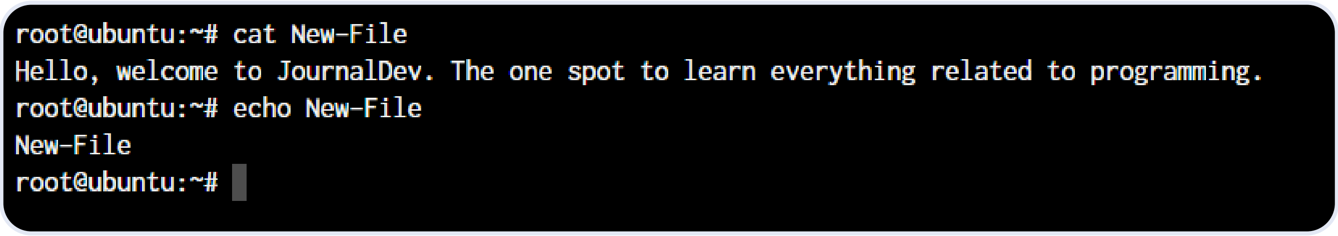
```
root@ubuntu:~# ls
New-File
root@ubuntu:~# ln -s New-File New-File-Link
root@ubuntu:~# ls -l
total 0
```

The basic syntax involves using the -s parameter so we can create a symbolic link or soft link.

The cat, echo, and less commands

When you want to output the contents of a file, or print anything to the terminal output, we make use of the cat or echo commands. Let's see their basic usage. I've added some text to our New-File that we created earlier.

```
root@ubuntu:~# cat <file name>
root@ubuntu:~# echo <Text to print on terminal>
```



```
root@ubuntu:~# cat New-File
Hello, welcome to JournalDev. The one spot to learn everything related to programming.
root@ubuntu:~# echo New-File
New-File
root@ubuntu:~#
```

As you can see in the above example, the cat command when used on our "New-File", prints the contents of the file. At the same time, when we use echo command, it simply prints whatever follows after the command.

The less command is used when the output printed by any command is larger than the screen space and needs scrolling. The less command allows use to break down the output and scroll through it with the use of the enter or space keys.

The man command in Linux

The man command is a very useful Linux command you must know. When working with Linux, the packages that we download can have a lot of functionality. Knowing it all is

```
root@ubuntu:~# man <command>
```

Copy

The uname and whoami commands

The uname and whoami commands allow you to know some basic information which comes really handy when you work on multiple systems. In general, if you're working with a single computer, you won't really need it as often as someone who is a network administrator.

Let's see the output of both the commands and the way we can use these.

```
root@ubuntu:~# uname -a
```

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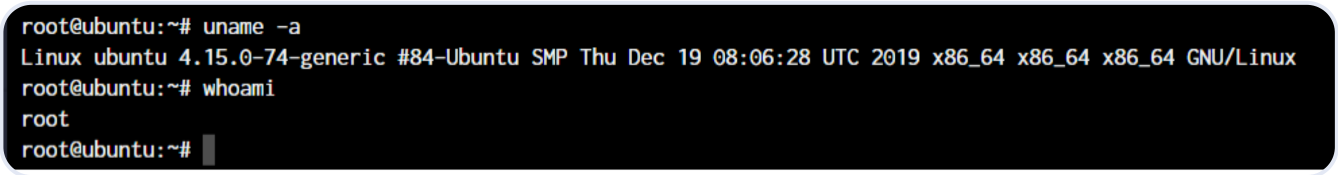

```
root@ubuntu:~# uname -a
Linux ubuntu 4.15.0-74-generic #84-Ubuntu SMP Thu Dec 19 08:06:28 UTC 2019 x86_64 x86_64 x86_64 GNU/Linux
root@ubuntu:~# whoami
root
root@ubuntu:~#
```

The parameter -a which I've supplied to uname, stands for "all". This prints out the complete information. If the parameter is not added, all you will get as the output is "Linux".

The tar, zip, and unzip commands

The tar command in Linux is used to create and extract archived files in Linux. We can extract multiple different archive files using the tar command.

To create an archive, we use the -c parameter and to extract an archive, we use the -x parameter. Let's see it working.

```
#Compress
root@ubuntu:~# tar -cvf <archive name> <files seperated by space>
#Extract
root@ubuntu:~# tar -xvf <archive name>
```

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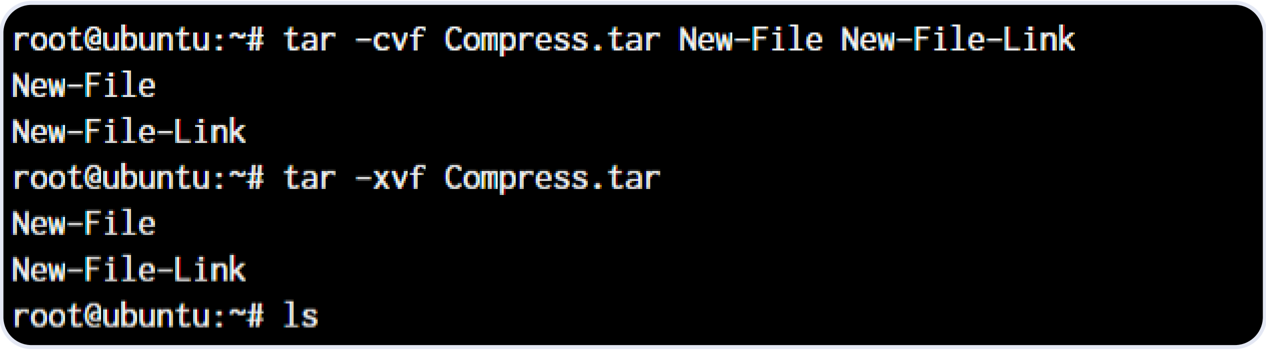


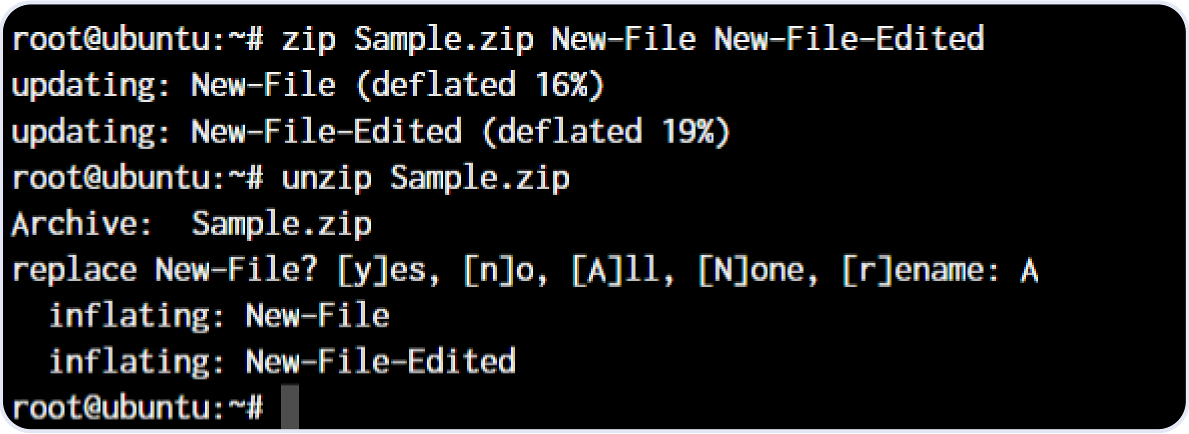
```
root@ubuntu:~# tar -cvf Compress.tar New-File New-File-Link
New-File
New-File-Link
root@ubuntu:~# tar -xvf Compress.tar
New-File
New-File-Link
root@ubuntu:~# ls
```

In the first line, we created an archive named Compress.tar with the New-File and New-File-Link. In the next command, we have extracted those files from the archive.

Now coming to the zip and unzip commands. Both these commands are very straight forward. You can use them without any parameters and they'll work as intended. Let's see an example below.

```
root@ubuntu:~# zip <archive name> <file names separated by space>
root@ubuntu:~# unzip <archive name>
```

Copy



```
root@ubuntu:~# zip Sample.zip New-File New-File-Edited
updating: New-File (deflated 16%)
updating: New-File-Edited (deflated 19%)
root@ubuntu:~# unzip Sample.zip
Archive:  Sample.zip
replace New-File? [y]es, [n]o, [A]ll, [N]one, [r]ename: A
  inflating: New-File
  inflating: New-File-Edited
root@ubuntu:~#
```

Since we already have those files in the same directory, the unzip command prompts us before overwriting those files.

Learn more about the tar command (Link to article) and zip and unzip commands (Link to article)

The grep command in Linux

If you wish to search for a specific string within an output, the grep command comes into

```
root@ubuntu:~# <Any command with output> | grep "<string to find>"
```

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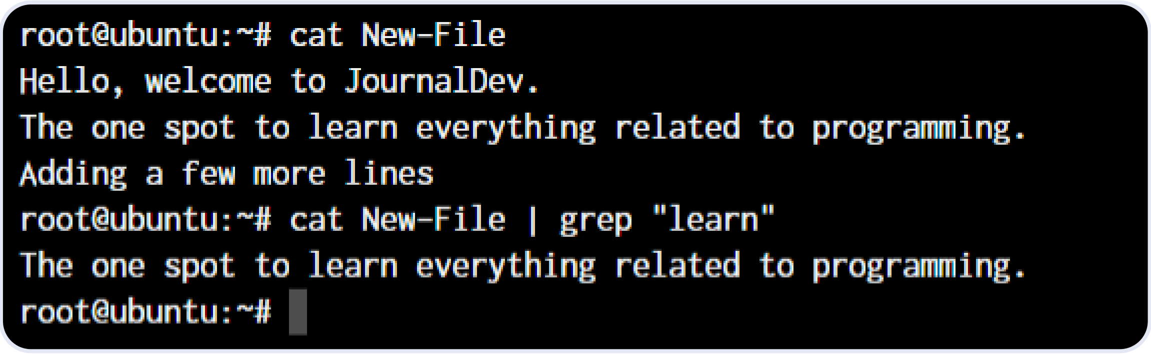


```
root@ubuntu:~# cat New-File
Hello, welcome to JournalDev.
The one spot to learn everything related to programming.
Adding a few more lines
root@ubuntu:~# cat New-File | grep "learn"
The one spot to learn everything related to programming.
root@ubuntu:~#
```

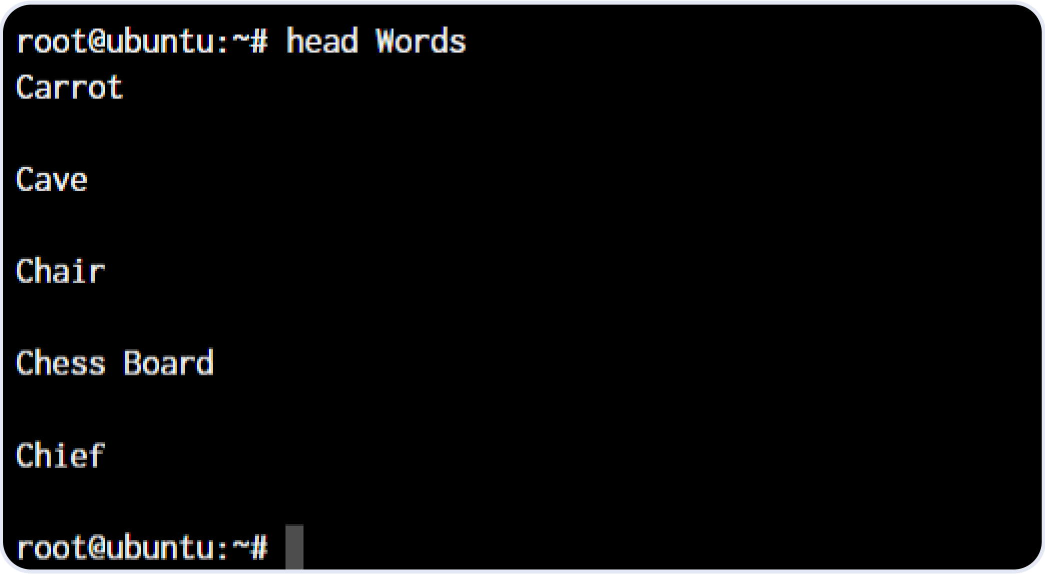
This was a simple demonstration of the command. Learn more about the grep command (Link to article)

The head and tail commands

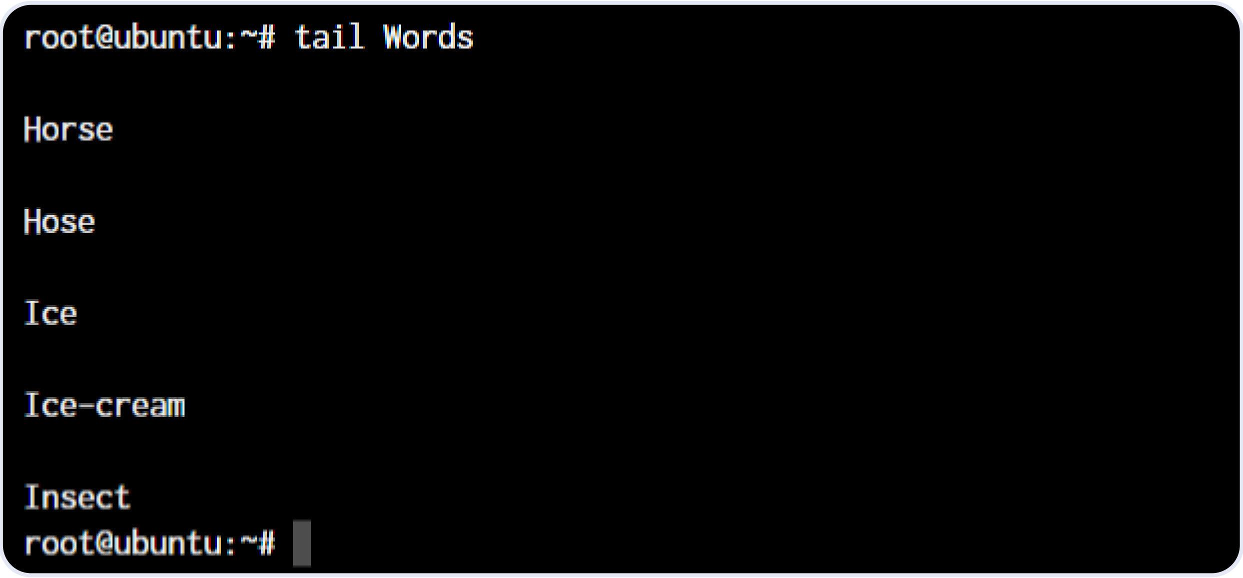
When outputting large files, the head and the tail commands come in handy. I've created a file named "Words" with a lot of words arranged alphabetically in it. The head command will output the first 10 lines from the file, while the tail command will output the last 10. This also includes any blank lines and not just lines with text.

```
root@ubuntu:~# head <file name>
root@ubuntu:~# tail <file name>
```

Copy



```
root@ubuntu:~# head Words
Carrot

Cave

Chair

Chess Board

Chief

root@ubuntu:~#
```



```
root@ubuntu:~# tail Words

Horse

Hose

Ice

Ice-cream

Insect
root@ubuntu:~#
```

The tail command outputted the bottom 10 lines from the file.

Learn more about the tail command(Link to article)

The diff, comm, and cmp commands

Linux offers multiple commands to compare files. The diff, comm, and cmp commands compare differences and are some of the most useful Linux commands you must know. Let's see the default outputs for all the three commands.

```
root@ubuntu:~# diff <file 1> <file 2>
```

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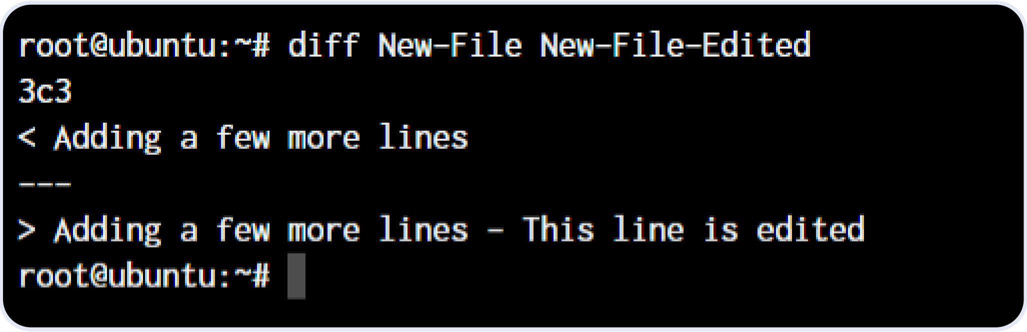
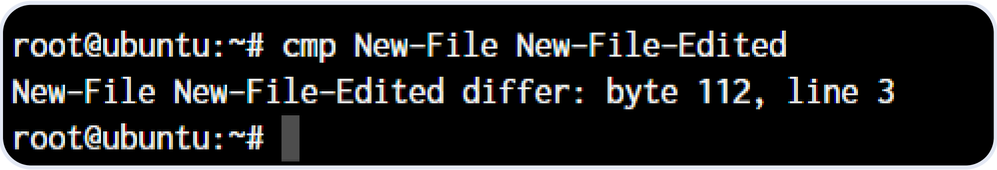


```
root@ubuntu:~# diff New-File New-File-Edited
3c3
< Adding a few more lines
---
> Adding a few more lines - This line is edited
root@ubuntu:~#
```

As you can see above, I've added a small piece of text saying "This line is edited" to the New-File-Edited file.



```
root@ubuntu:~# cmp New-File New-File-Edited
New-File New-File-Edited differ: byte 112, line 3
root@ubuntu:~#
```

The cmp command only tells use the line number which is different. Not the actual text. Let's see what the comm command does.

```
root@ubuntu:~# comm <file 1> <file2>
```

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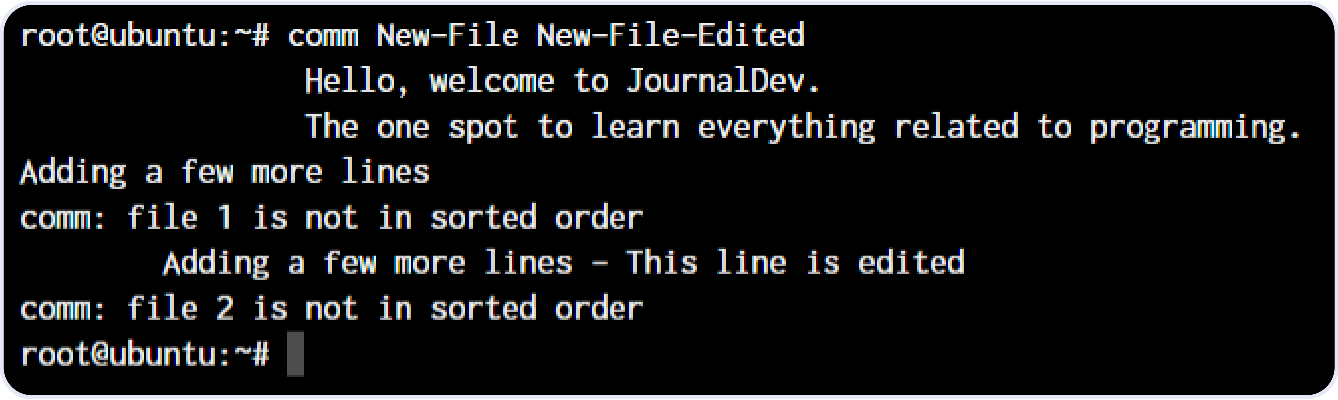

```
root@ubuntu:~# comm New-File New-File-Edited
                Hello, welcome to JournalDev.
                The one spot to learn everything related to programming.
Adding a few more lines
comm: file 1 is not in sorted order
        Adding a few more lines - This line is edited
comm: file 2 is not in sorted order
root@ubuntu:~#
```

The text that's aligned to the left is the text that's only present in file 1. The center-aligned text is present only in file 2. And the right-aligned text is present in both the files.

By the looks of it, comm command makes the most sense when we're trying to compare larger files and would like to see everything arranged together.

The sort command in Linux

The sort command will provide a sorted output of the contents of a file. Let's use the sort command without any parameters and see the output.

The basic syntax of the sort command is:

```
root@ubuntu:~# sort <filename>
```

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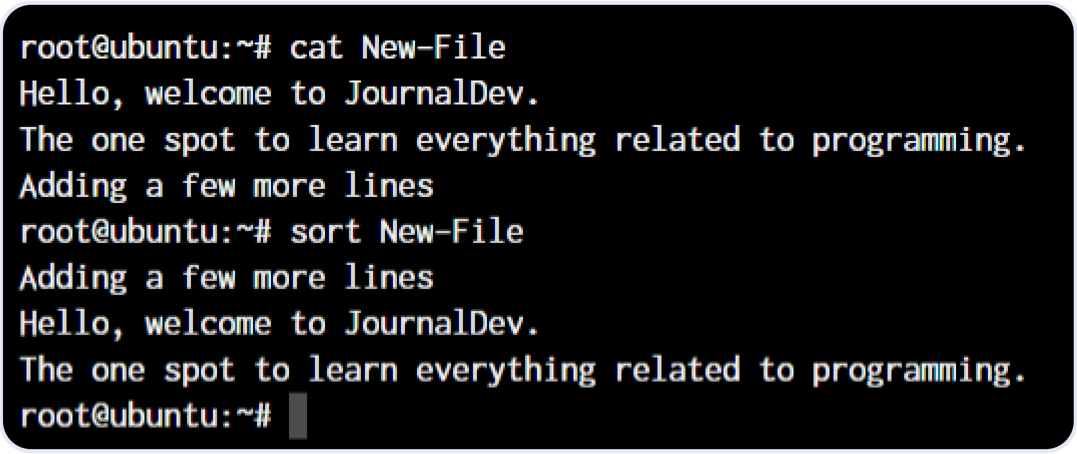

```
root@ubuntu:~# cat New-File
Hello, welcome to JournalDev.
The one spot to learn everything related to programming.
Adding a few more lines
root@ubuntu:~# sort New-File
Adding a few more lines
Hello, welcome to JournalDev.
The one spot to learn everything related to programming.
root@ubuntu:~#
```

The export command in Linux

The export command is specially used when exporting environment variables in runtime. For example, if I wanted to update the bash prompt, I'll update the PS1 environment variable. The bash prompt will be updated with immediate effect.

```
root@ubuntu:~# export <variable name>=<value>
```

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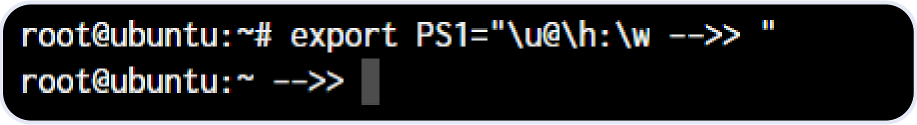

```
root@ubuntu:~# export PS1="\u@\h:\w -->> "
root@ubuntu:~ -->>
```

If for some reason, your bash prompt doesn't update, just type in bash and you should see the updated terminal prompt.

Learn more about the export command(Link to article)

The ssh command in Linux

The ssh command allows us to connect to an external machine on the network with the use of the ssh protocol. The basic syntax of the ssh command is:

```
root@ubuntu:~ -->> ssh username@hostname
```

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Learn more about ssh command(Link to article)

The service command in Linux is used for starting and stopping different services within the operating system. The basic syntax of the command is as below.

```
root@ubuntu:~ -->> service ssh status
root@ubuntu:~ -->> service ssh stop
root@ubuntu:~ -->> service ssh start
```

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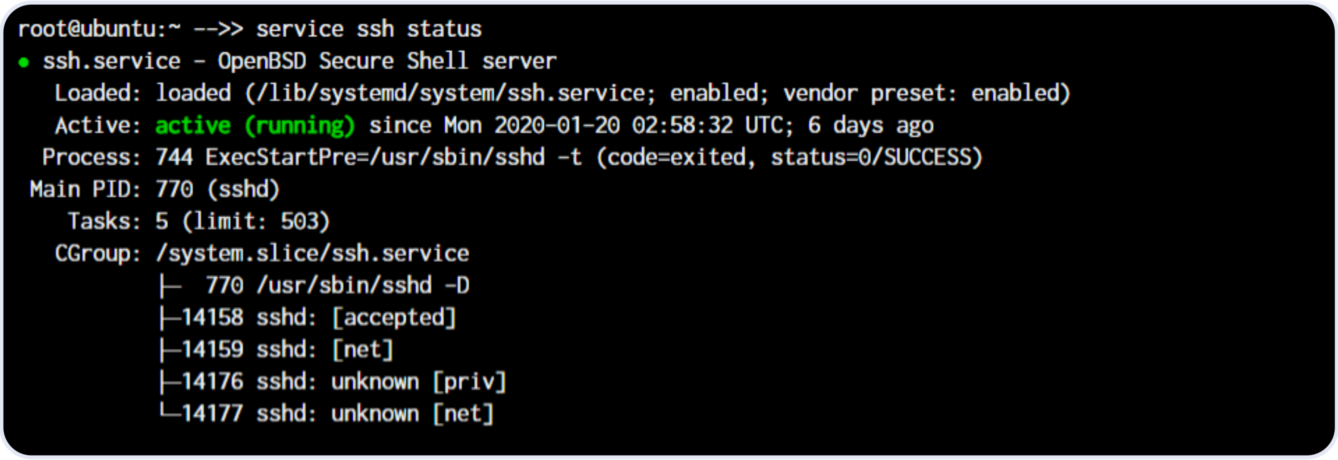


```
root@ubuntu:~ -->> service ssh status
● ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2020-01-20 02:58:32 UTC; 6 days ago
  Process: 744 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
 Main PID: 770 (sshd)
    Tasks: 5 (limit: 503)
   CGroup: /system.slice/ssh.service
           ├─  770 /usr/sbin/sshd -D
           ├─14158 sshd: [accepted]
           ├─14159 sshd: [net]
           ├─14176 sshd: unknown [priv]
           └─14177 sshd: unknown [net]
```

As you can see in the image, the ssh server is running on our system.

The ps, kill, and killall commands

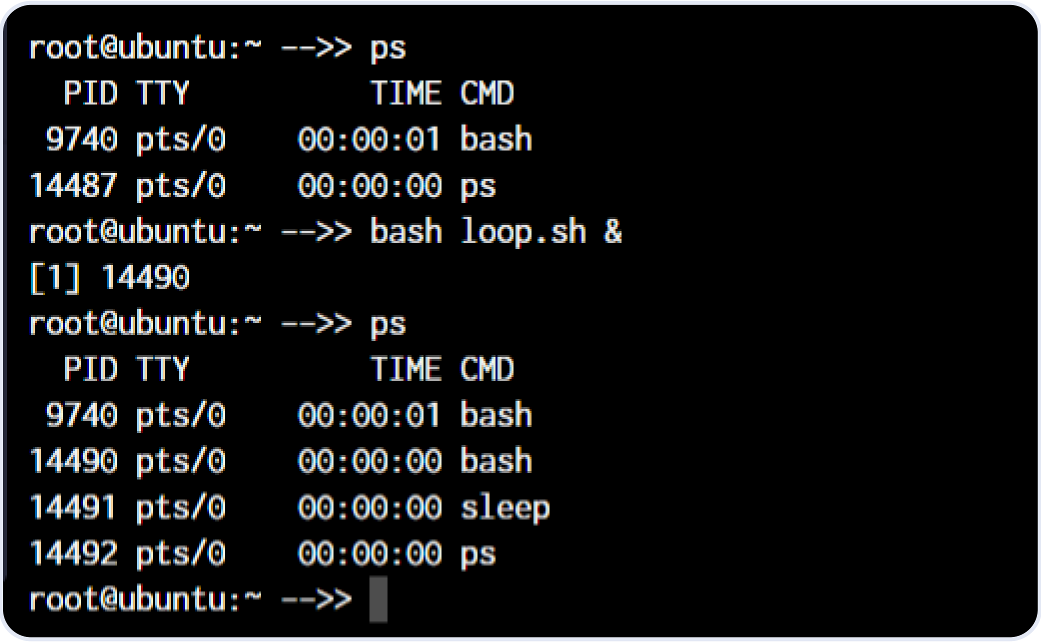
While we’re on the topic of processes, let’s see how we can find active processes and kill them. To find the running processes, we can simply type ps in the terminal prompt and get the list of running processes.

```
root@ubuntu:~ -->> ps
root@ubuntu:~ -->> kill <process ID>
root@ubuntu:~ -->> killall <process name>
```

Copy

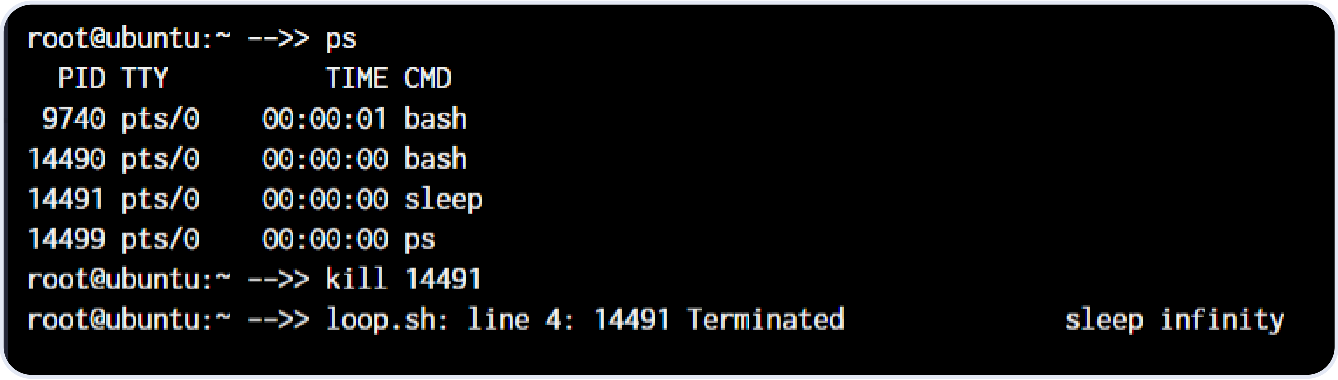
For demonstration purposes, I’m creating a shell script with an infinite loop and will run it in the background.

With the use of the & symbol, I can pass a process into the background. As you can see, a new bash process with PID 14490 is created.



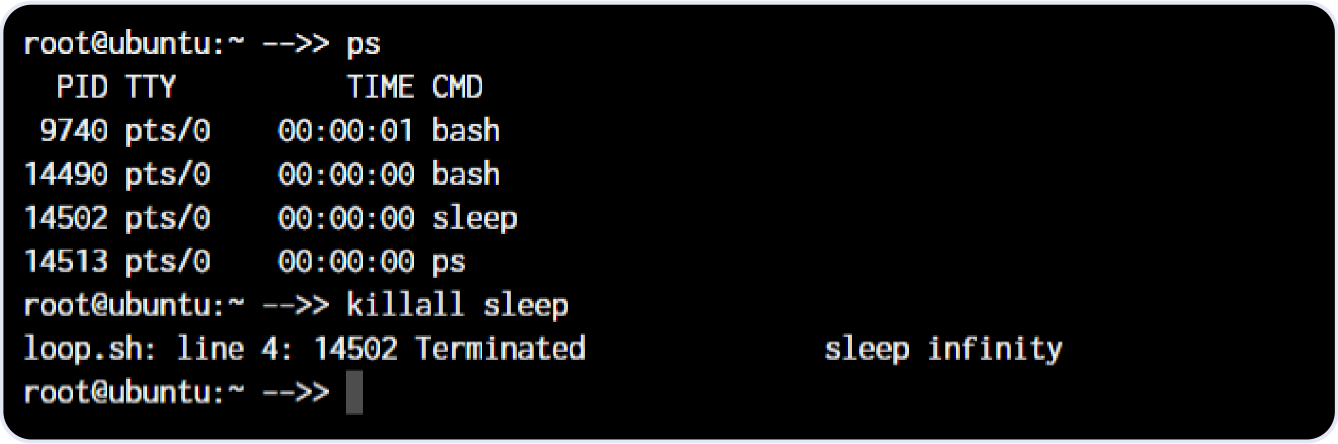
```
root@ubuntu:~ -->> ps
  PID TTY          TIME CMD
 9740 pts/0    00:00:01 bash
14487 pts/0    00:00:00 ps
root@ubuntu:~ -->> bash loop.sh &
[1] 14490
root@ubuntu:~ -->> ps
  PID TTY          TIME CMD
 9740 pts/0    00:00:01 bash
14490 pts/0    00:00:00 bash
14491 pts/0    00:00:00 sleep
14492 pts/0    00:00:00 ps
root@ubuntu:~ -->> 
```

Now, to kill a process with the kill command, you can type kill followed b the PID of the process.



```
root@ubuntu:~ -->> ps
  PID TTY          TIME CMD
 9740 pts/0    00:00:01 bash
14490 pts/0    00:00:00 bash
14491 pts/0    00:00:00 sleep
14499 pts/0    00:00:00 ps
root@ubuntu:~ -->> kill 14491
root@ubuntu:~ -->> loop.sh: line 4: 14491 Terminated              sleep infinity
```

But if you do not know the process ID and just want to kill the process with the name, you can make use of the killall command.



```
root@ubuntu:~ -->> ps
  PID TTY          TIME CMD
 9740 pts/0    00:00:01 bash
14490 pts/0    00:00:00 bash
14502 pts/0    00:00:00 sleep
14513 pts/0    00:00:00 ps
root@ubuntu:~ -->> killall sleep
loop.sh: line 4: 14502 Terminated              sleep infinity
root@ubuntu:~ -->> 
```

The df and mount commands

When working with Linux, the df and mount commands are very efficient utilities to mount filesystems and get details of the file system.

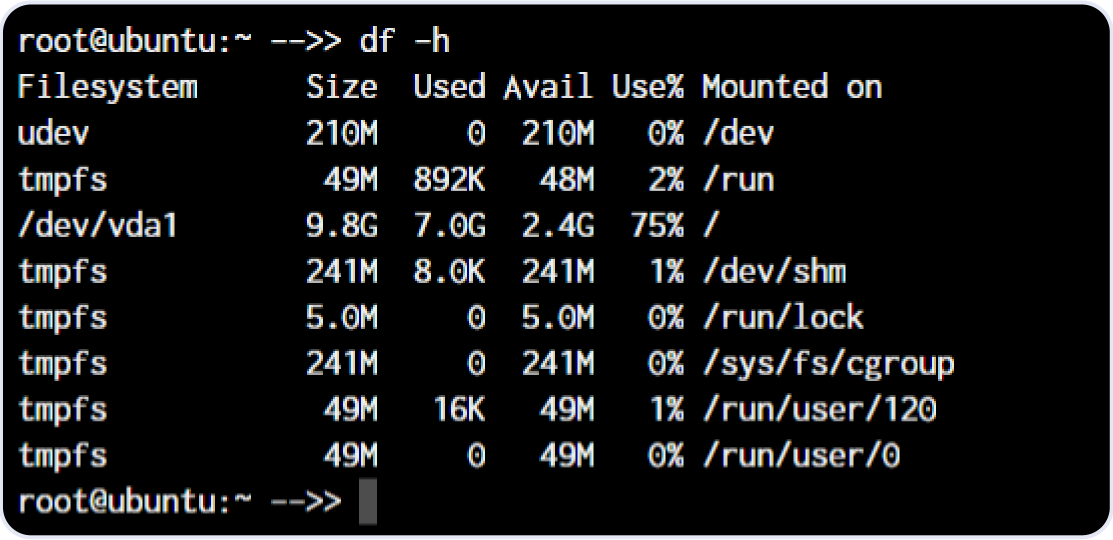
When I say mount, it means that we'll connect the device to a folder so we can access the files from our filesystem. The default syntax to mount a filesystem is below:

```
root@ubuntu:~ -->> mount /dev/cdrom /mnt
root@ubuntu:~ -->> df -h
```

Copy

In the above case, /dev/cdrom is the device that needs to be mounted. Usually, a mountable device is found inside the /dev folder. /mnt is the destination folder to mount the device to. You can change it to any folder you want but I've used /mnt as it's pretty much a system default folder for mounting devices.

To see the mounted devices and get more information about them, we make use of the df command. Just typing df will give us the data in bytes which is not readable. So we'll use the -h parameter to make the data human-readable.



```
root@ubuntu:~ -->> df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            210M     0  210M   0% /dev
tmpfs            49M  892K   48M   2% /run
/dev/vda1       9.8G  7.0G  2.4G  75% /
tmpfs           241M  8.0K  241M   1% /dev/shm
tmpfs           5.0M     0  5.0M   0% /run/lock
tmpfs           241M     0  241M   0% /sys/fs/cgroup
tmpfs            49M   16K   49M   1% /run/user/120
tmpfs            49M     0   49M   0% /run/user/0
root@ubuntu:~ -->>
```

Learn more about the df command(Link to article)

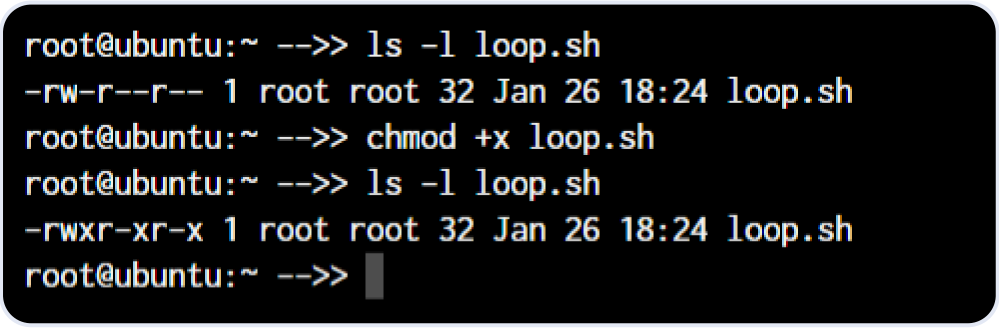
The chmod and chown commands

The chmod and chown commands give us the functionality to change the file permissions

The default syntax for both the commands is chmod <parameter> filename and chown user:group filename

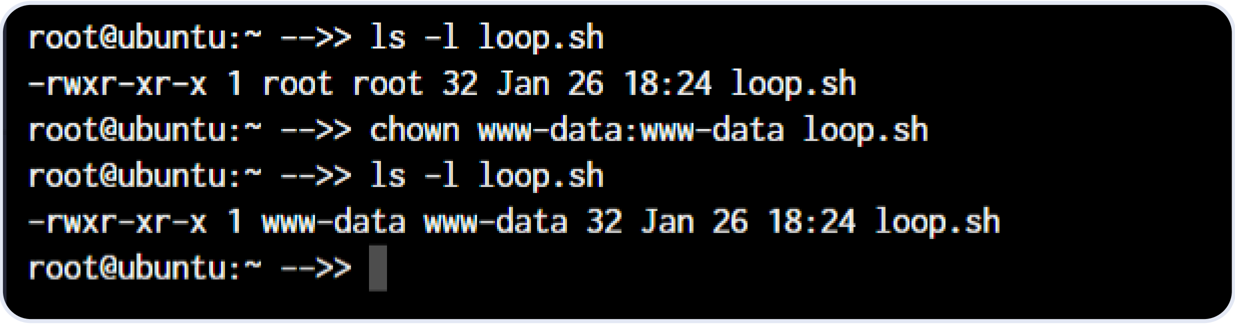
```
root@ubuntu:~ -->> chmod +x loop.sh
root@ubuntu:~ -->> chmod root:root loop.sh
```

Copy



```
root@ubuntu:~ -->> ls -l loop.sh
-rw-r--r-- 1 root root 32 Jan 26 18:24 loop.sh
root@ubuntu:~ -->> chmod +x loop.sh
root@ubuntu:~ -->> ls -l loop.sh
-rwxr-xr-x 1 root root 32 Jan 26 18:24 loop.sh
root@ubuntu:~ -->>
```

In the above example, we're adding executable permissions to the loop.sh file with the chmod command. Apart from that, with the chown command, we've made it accessible only by root user and users within the root group.



```
root@ubuntu:~ -->> ls -l loop.sh
-rwxr-xr-x 1 root root 32 Jan 26 18:24 loop.sh
root@ubuntu:~ -->> chown www-data:www-data loop.sh
root@ubuntu:~ -->> ls -l loop.sh
-rwxr-xr-x 1 www-data www-data 32 Jan 26 18:24 loop.sh
root@ubuntu:~ -->>
```

As you will notice, the root root part is now changed to www-data which is the new user who has full file ownership.

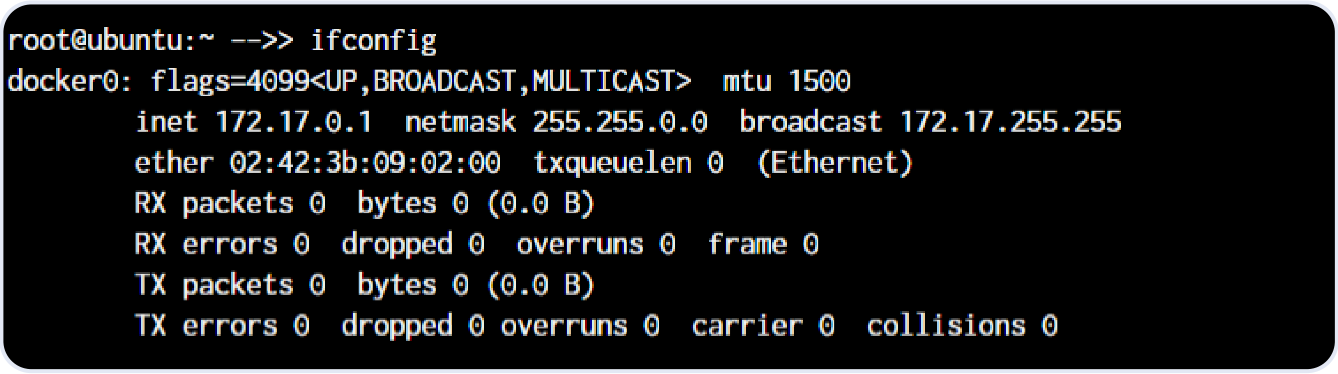
Learn more about the chmod command(Link to article) and chown command (Link to article)

The ifconfig and traceroute commands

Moving on to the networking section in Linux, we come across the ifconfig and traceroute commands which will be frequently used if you manage a network.

The ifconfig command will give you the list of all the network interfaces along with the IP addresses, MAC addresses and other information about the interface.

There are multiple parameters that can be used but we'll work with the basic command here.

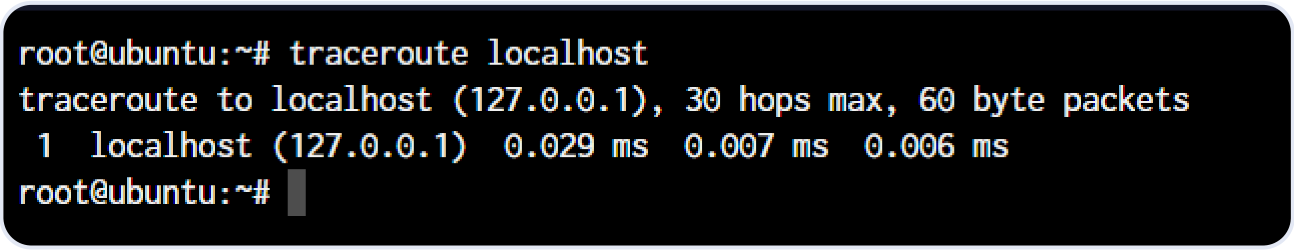


```
root@ubuntu:~ -->> ifconfig
docker0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        inet 172.17.0.1  netmask 255.255.0.0  broadcast 172.17.255.255
        ether 02:42:3b:09:02:00  txqueuelen 0  (Ethernet)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

When working with traceroute, you can simply specify the IP address, the hostname or the domain name of the endpoint.

```
root@ubuntu:~ -->> traceroute <destination address>
```

Copy



```
root@ubuntu:~# traceroute localhost
traceroute to localhost (127.0.0.1), 30 hops max, 60 byte packets
 1  localhost (127.0.0.1)  0.029 ms  0.007 ms  0.006 ms
root@ubuntu:~#
```

Now obviously, localhost is just one hop (which is the network interface itself). You can try this same command with any other domain name or IP address to see all the routers that your data packets pass through to reach the destination.

Learn more about the ifconfig command(Link to article)

The wget command in Linux

If you want to download a file from within the terminal, the wget command is one of the handiest command-line utilities available. This will be one of the important Linux commands you should know when working with source files.

When you specify the link for download, it has to directly be a link to the file. If the file cannot be accessed by the wget command, it will simply download the webpage in HTML format instead of the actual file that you wanted.

```
root@ubuntu:~ -->> wget -c <link to file>
```

The -c argument allows us to resume an interrupted download.

The ufw and iptables commands

UFW and IPTables are firewall interfaces for the Linux Kernel's netfilter firewall. IPTables directly passes firewall rules to netfilter while UFW configures the rules in IPTables which then sends those rules to netfilter.

Why do we need UFW when we have IPTables? Because IPTables is pretty difficult for a newbie. UFW makes things extremely easy. See the below example where we are trying to allow the port 80 for our webserver.

```
root@ubuntu:~# iptables -A INPUT -p tcp -m tcp --dport 80 -j ACCEPT
root@ubuntu:~# ufw allow 80
```

I'm sure you now know why UFW was created! Look at how easy the syntax becomes. Both these firewalls are very comprehensive and can allow you to create any kind of configuration required for your network. Learn at least the basics of UFW or IPTables firewall as these are the Linux commands you must know.

Learn more opening ports on Linux(Link to article)

Package Managers in Linux

Different distros of Linux make use of different package managers. Since we're working on a Ubuntu server, we have the apt package manager. But for someone working on a Fedora, Red Hat, Arch, or Centos machine, the package manager will be different.

- Debian and Debian-based distros - apt install <package name>
- Arch and Arch-based distros - pacman -S <package name>
- Red Hat and Red Hat-based distros - yum install <package name>
- Fedora and CentOS - yum install <package>

Getting yourself well versed with the package manager of your distribution will make things much easier for you in the long run. So even if you have a GUI based package

“With great power, comes great responsibility”

This is the quote that’s displayed when a sudo enabled user(sudoer) first makes use of the sudo command to escalate privileges. This command is equivalent to having logged in as root (based on what permissions you have as a sudoer).

```
non-root-user@ubuntu:~# sudo <command you want to run>
Password:
```

Copy

Just add the word sudo before any command that you need to run with escalated privileges and that’s it. It’s very simple to use, but can also be an added security risk if a malicious user gains access to a sudoer.

Learn more about the sudo command (Link to article)

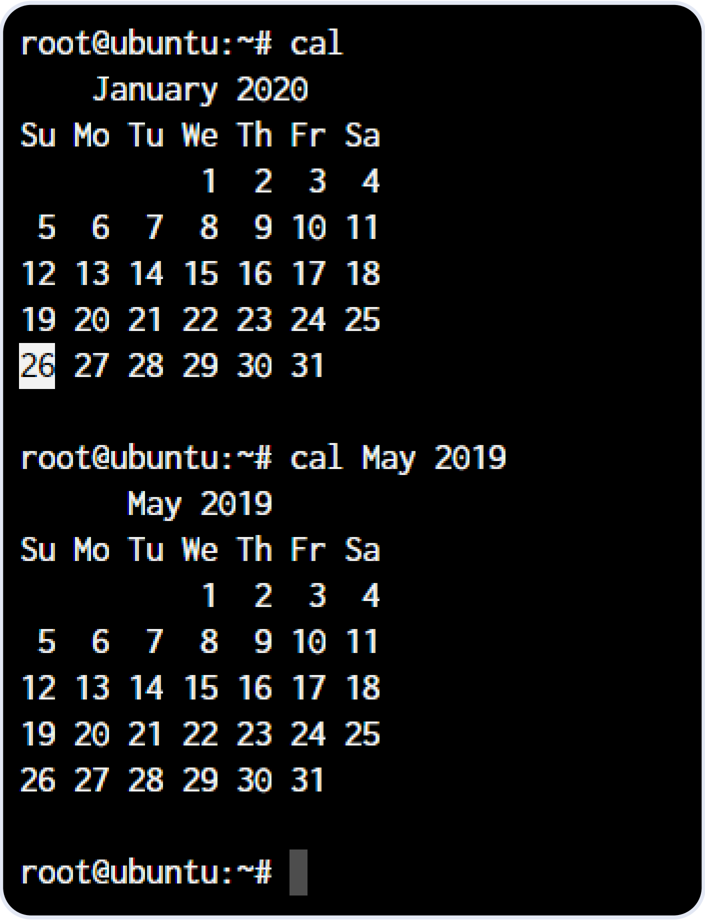
The cal command in Linux

Ever wanted to view the calendar in the terminal? Me neither! But there apparently are people who wanted it to happen and well here it is.

The cal command displays a well-presented calendar on the terminal. Just enter the word cal on your terminal prompt.

```
root@ubuntu:~# cal
root@ubuntu:~# cal May 2019
```

Copy



```
root@ubuntu:~# cal
    January 2020
Su Mo Tu We Th Fr Sa
          1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31

root@ubuntu:~# cal May 2019
      May 2019
Su Mo Tu We Th Fr Sa
          1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31

root@ubuntu:~#
```

Even though I don’t need it, it’s a really cool addition! I’m sure there are people who are terminal fans and this is a really amazing option for them.

The alias command

Do you have some commands that you run very frequently while using the terminal? It could be rm -r or ls -l, or it could be something longer like tar -xvzf. This is one of the productivity-boosting Linux commands you must know.

If you know a command that you run very often, it’s time to create an alias. What’s an alias? In simple terms, it’s another name for a command that you’ve defined.

```
root@ubuntu:~# alias lsl="ls -l"
OR
root@ubuntu:~# alias rmd="rm -r"
```

Copy

Now every time you enter lsl or rmd in the terminal, you’ll receive the output that you’d

Learn more about alias command (LInk to article)

The dd command in Linux

This command was created to convert and copy files from multiple file system formats. In the current day, the command is simply used to create bootable USB for Linux but there still are some things important you can do with the command.

For example, if I wanted to back up the entire hard drive as is to another drive, I'll make use of the dd command.

```
root@ubuntu:~# dd if = /dev/sdb of = /dev/sda
```

Copy

The if and of arguments stand for input file and output file.

The whereis and whatis commands

The names of the commands make it very clear as to their functionality. But let's demonstrate their functionality to make things more clear.

The whereis command will output the exact location of any command that you type in after the whereis command.

```
root@ubuntu:~# whereis sudo
sudo: /usr/bin/sudo /usr/lib/sudo /usr/share/man/man8/sudo.8.gz
```

Copy

The whatis command gives us an explanation of what a command actually is. Similar to the whereis command, you'll receive the information for any command that you type after the whatis command.

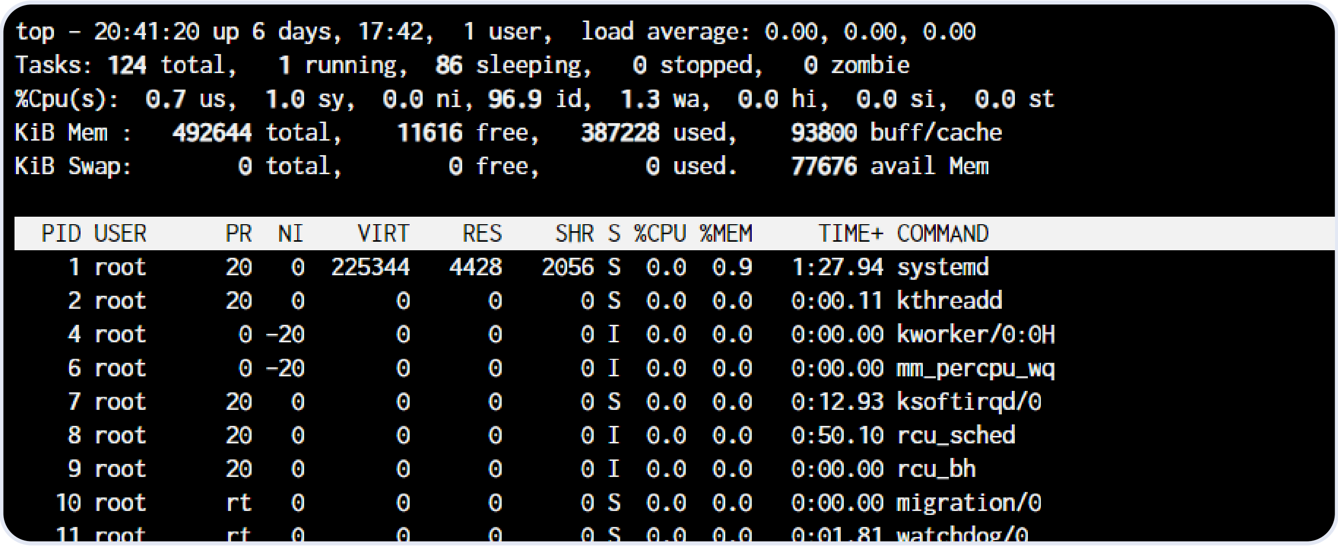
```
root@ubuntu:~# whatis sudo
sudo (8) - execute a command as another user
```

Copy

The top command in Linux

The top command is like a CLI version of the task manager in Windows. You get a live view of the processes and all the information accompanying those processes like memory usage, CPU usage, etc.

To get the top command, all you need to do is type the word top in your terminal.



```
top - 20:41:20 up 6 days, 17:42,  1 user,  load average: 0.00, 0.00, 0.00
Tasks: 124 total,   1 running,  86 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.7 us,  1.0 sy,  0.0 ni, 96.9 id,  1.3 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem :   492644 total,    11616 free,   387228 used,    93800 buff/cache
KiB Swap:        0 total,        0 free,        0 used.    77676 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
    1 root      20   0  225344   4428   2056 S  0.0  0.9   1:27.94 systemd
    2 root      20   0       0      0      0 S  0.0  0.0   0:00.11 kthreadd
    4 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 kworker/0:0H
    6 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 mm_percpu_wq
    7 root      20   0       0      0      0 S  0.0  0.0   0:12.93 ksoftirqd/0
    8 root      20   0       0      0      0 I  0.0  0.0   0:50.10 rcu_sched
    9 root      20   0       0      0      0 I  0.0  0.0   0:00.00 rcu_bh
   10 root      rt   0       0      0      0 S  0.0  0.0   0:00.00 migration/0
   11 root      rt   0       0      0      0 S  0.0  0.0   0:01.81 watchdog/0
```

The useradd and usermod commands

The useradd or adduser commands are the exact same commands where adduser is just a symbolic link to the useradd command. This command allows us to create a new user in Linux.

```
root@ubuntu:~# useradd JournalDev -d /home/JD
```

Copy

The above command will create a new user named JournalDev with the home directory as /home/JD.

The usermod command, on the other hand, is used to modify existing users. You can modify any value of the user including the groups, the permissions, etc.

For example, if you want to add more groups to the user, you can type in:

```
root@ubuntu:~# usermod JournalDev -a -G sudo, audio, mysql
```

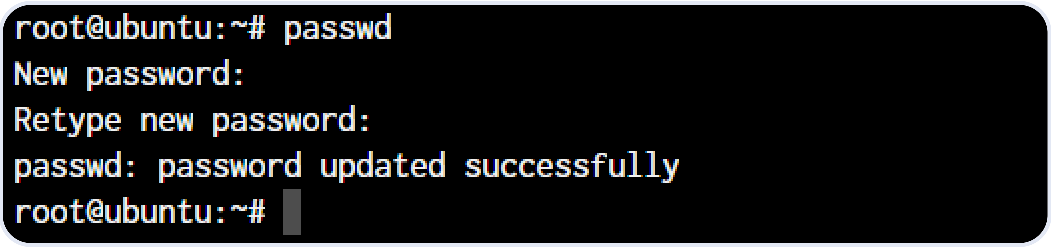
Copy

Now that you know how to create new users, let’s also set the password for them. The passwd command lets you set the password for your own account, or if you have the permissions, set the password for other accounts.

The command usage is pretty simple:

```
root@ubuntu:~# passwd
New password:
```

Copy



```
root@ubuntu:~# passwd
New password:
Retype new password:
passwd: password updated successfully
root@ubuntu:~#
```

If you add the username after passwd, you can set passwords for other users. Enter the new password twice and you’re done. That’s it! You will have a new password set for the user!

Final Note

This happened to be a very long article but I’m sure will be something you can refer to whenever required. As we add more articles to JournalDev, we will continue to add links to those articles here.

We hope this article was useful to you. If you have any questions, feel free to comment down below.

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e09330e1749e4191a9dfe441e5129f Author

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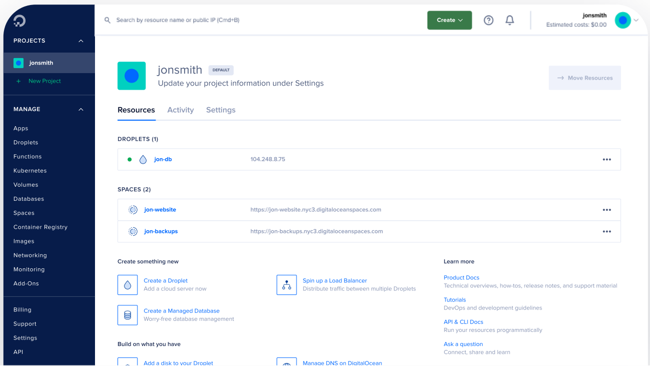

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