

Linux Commands

Introduction:

In AWS, especially when working with EC2 Linux instances, Linux commands are essential for managing and interacting with the virtual server environment. After connecting to a Linux instance via SSH, users use Linux commands to perform tasks like:

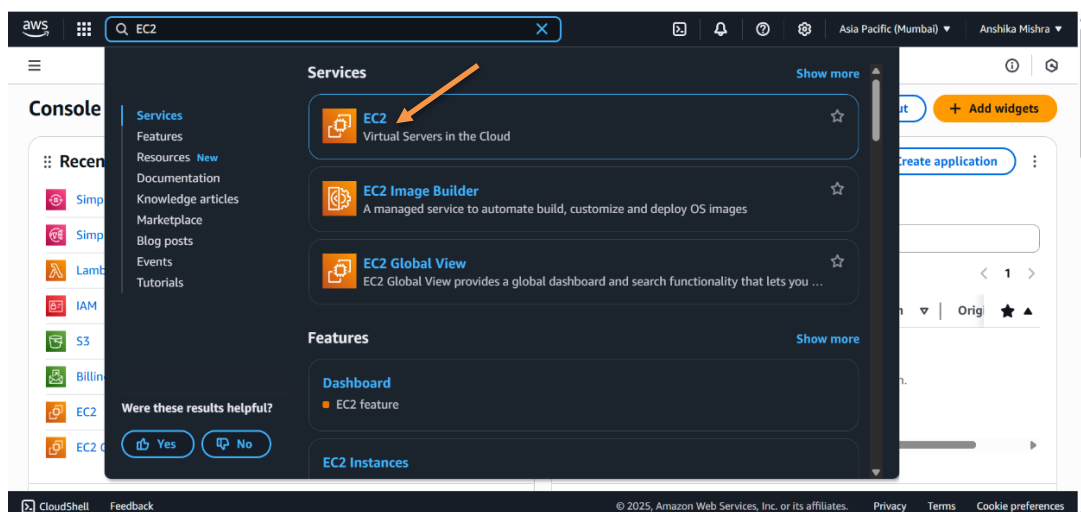
- Navigating directories (cd, ls)
- Managing files (cp, mv, rm, nano, vim)
- Installing software (yum, apt-get)
- Monitoring system performance (top, htop, df, free)
- Managing permissions and users (chmod, chown, adduser)
- Starting and stopping services (systemctl, service)
- Transferring files (scp, rsync)
- Running scripts and automating tasks (bash, cron)

These commands enable users to configure servers, deploy applications, manage storage, and handle system operations—all directly within the cloud environment.

Step by Step Instructions:

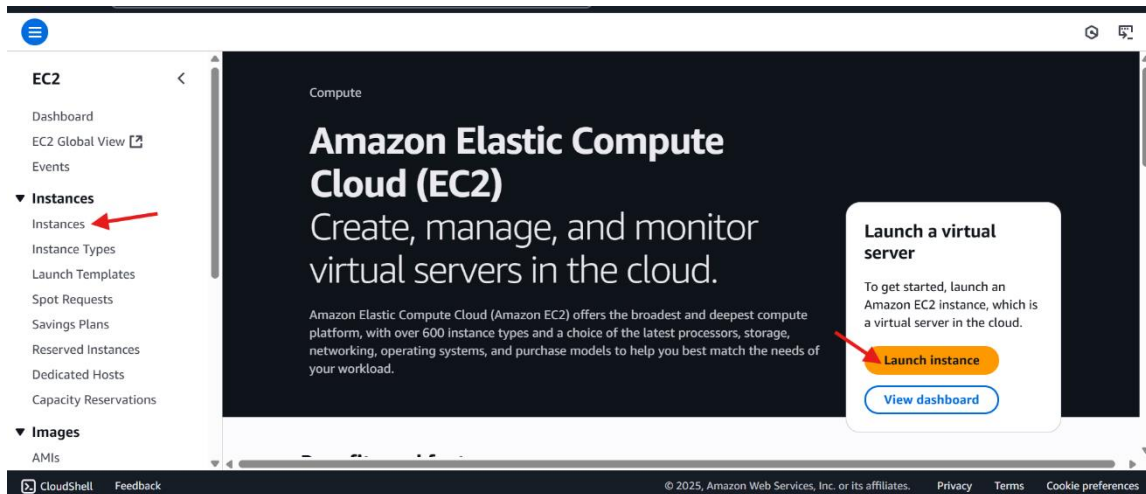
Step 1:

- Go to “AWS Management Console” and search “EC2”.



- The “EC2 Dashboard” will open.

- Go to “Instance”.
- Click on “Launch Instance”.



- Type Server name.

Name and tags [Info](#)

Name

myserver

- Select “Amazon Linux aws”.

☰ [EC2](#) > [Instances](#) > Launch an instance

Amazon Linux
aws

macOS
Mac

Ubuntu
ubuntu

Windows
Microsoft

Red Hat
Red Hat

SUSE Linux
SUSE

[Browse more AMIs](#)
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 kernel-6.1 AMI Free tier eligible ▼

ami-0a1235697f4afa8a4 (64-bit (x86), uefi-preferred) / ami-03e81965fd8e52909 (64-bit (Arm), uefi)

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2023 (kernel-6.1) is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Amazon Linux 2023 AMI 2023.8.20250707.0 x86_64 HVM kernel-6.1

Architecture	Boot mode	AMI ID	Publish Date	Username
64-bit (x86)	uefi-preferred	ami-0a1235697f4afa8a4	2025-07-08	ec2-user

- Select “t2.micro” instance type.
- Select key pair.

☰ [EC2](#) > [Instances](#) > Launch an instance

▼ Instance type [Info](#) | [Get advice](#)

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true
 On-Demand Windows base pricing: 0.017 USD per Hour
 On-Demand RHEL base pricing: 0.0268 USD per Hour
 On-Demand Linux base pricing: 0.0124 USD per Hour
 On-Demand Ubuntu Pro base pricing: 0.0142 USD per Hour
 On-Demand SUSE base pricing: 0.0124 USD per Hour

Free tier eligible

☐ All generations

[Compare instance types](#)

[Additional costs apply for AMIs with pre-installed software](#)

Q |

Proceed without a key pair (Not recommended)

Default value

ve access to the selected key pair before

key1

Type: rsa

✓

key1

▲

↻

[Create new key pair](#)

- In Network Setting, Allow https and https.

vpc-0f566c1b5a58f5f39

Subnet [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)

Enable

[Additional charges apply](#) when outside of [free tier allowance](#)

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group

☐ Select existing security group

We'll create a new security group called 'launch-wizard-8' with the following rules:

☒ Allow SSH traffic from
 Helps you connect to your instance

Anywhere

0.0.0.0/0

☒ Allow HTTPS traffic from the internet
 To set up an endpoint, for example when creating a web server

☒ Allow HTTP traffic from the internet
 To set up an endpoint, for example when creating a web server

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting

- Click on “Launch Instance”.

▼ Summary

Number of instances

Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.8.2...[read more](#)

ami-0a1235697f4afa8a4

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Cancel

Launch instance

Preview code

-
- Wait until the instance state goes from “Pending” to “Running”.

EC2 > Instances

Instances (1) Info

Last updated less than a minute ago

Connect

Instance state ▼

Action

Find Instance by attribute or tag (case-sensitive)

All states ▼


<input type="checkbox"/>	Name ✎	Instance ID	Instance state ▼	Instance type ▼	Status check	Alarm status
<input type="checkbox"/>	myserver	i-0864e4dbec1e8ae00	Pending ⓘ 🔍	t2.micro	-	View alarms +

Find Instance by attribute or tag (case-sensitive)





All states ▼

<input type="checkbox"/>	Name ✎	Instance ID	Instance state ▼	Instance type ▼	Status check
<input type="checkbox"/>	myserver	i-0864e4dbec1e8ae00	Running ⓘ 🔍	t2.micro	2/2 checks passed

- Now, Select the server and then click on “Connect”.

Instances (1/1) Info Last updated less than a minute ago  [Connect](#) [Inst](#)

All states ▾

<input checked="" type="checkbox"/>	Name 	Instance ID	Instance state	Instance type	Status check
<input checked="" type="checkbox"/>	myserver	i-0864e4dbee1e8ae00	 Running 	t2.micro	 2/2 checks p

- Then click on connect.

EC2 > Instances > i-0864e4dbee1e8ae00 > Connect to instance

Instance ID
i-0864e4dbee1e8ae00 (myserver)


☒ Connect using a Public IP
Connect using a public IPv4 or IPv6 address


☐ Connect using a Private IP
Connect using a private IP address and a VPC endpoint

☒ Public IPv4 address
13.201.18.105

☐ IPv6 address

Username
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ec2-user.



 Note: In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

[Cancel](#) [Connect](#)

- Change user with the help of “sudo su” command.
- Then for check update type “yum update -y”.

```

Last login: Sun Jul 20 08:12:25 2025 from 13.233.177.4
[ec2-user@ip-172-31-1-172 ~]$ sudo su
[root@ip-172-31-1-172 ec2-user]# yum update -y
Last metadata expiration check: 0:00:51 ago on Sun Jul 20 08:13:09 2025.

```

- For installation type “yum install httpd -y”

```

Complete!
[root@ip-172-31-1-172 ec2-user]# yum install httpd -y
Last metadata expiration check: 1:06:27 ago on Sun Jul 20 08:13:09 2025.
Dependencies resolved.

```

- Whether package is start or stop you have to type command “systemctl status httpd”.

```

bash: systemctl: command not found
[root@ip-172-31-1-172 ec2-user]# systemctl status httpd
o httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
   Active: inactive (dead)
   Docs: man:httpd.service(8)

```

- It shows that “inactive(dead)”.
- For Starting package, type “systemctl start httpd”.

```
Docs: man:nginx.service(8)
[root@ip-172-31-1-172 ec2-user]# systemctl start httpd
```

- For html, type command “cd /var/www/html”.

```
[root@ip-172-31-1-172 ec2-user]# cd /var/www/html
```

- For typing the text, type “cat >index.html” and then type the message, after this press “Ctrl+ D” for exit.

```
[root@ip-172-31-1-172 html]# cat > index.html
this is html file...
[root@ip-172-31-1-172 html]#
```

- For Creating file, "cat file1" or "cat > file1" and type something after this type "Ctrl+D".

```
[root@ip-172-31-1-172 ec2-user]# cat >file1  
this is file1!
```

- For read, type “cat file1” command.

```
[root@ip-172-31-1-172 ec2-user]# cat file1
this is file1!
[root@ip-172-31-1-172 ec2-user]#
```

- For edit more line type “cat >> file1” command.

```
[root@ip-172-31-1-172 ec2-user]# cat >> file1
this is updation
[root@ip-172-31-1-172 ec2-user]# cat file1
this is file1!
this is updation
[root@ip-172-31-1-172 ec2-user]#
```

- For creating multiples files, type “touch file{2..5}” command.
- For check file, type “ls” command.

```
[root@ip-172-31-1-172 ec2-user]# touch file{2..5}
[root@ip-172-31-1-172 ec2-user]# ls
2 3 4 5 file1 file2 file3 file4 file5
[root@ip-172-31-1-172 ec2-user]#
```

- For hidden file or dot file, type “ls-a” command. It stand for list all.

```
[root@ip-172-31-1-172 ec2-user]# ls -a
.  ..  .bash_history  .bash_logout  .bash_profile  .bashrc  .ssh  2  3  4  5  file1  file2  file3  file4  file5
[root@ip-172-31-1-172 ec2-user]#
```

- For long list, type “ll” command.

```
[root@ip-172-31-1-172 ec2-user]# ll
total 4
-rw-r--r--. 1 root root 0 Jul 20 09:45 2
-rw-r--r--. 1 root root 0 Jul 20 09:45 3
-rw-r--r--. 1 root root 0 Jul 20 09:45 4
-rw-r--r--. 1 root root 0 Jul 20 09:45 5
-rw-r--r--. 1 root root 32 Jul 20 09:42 file1
-rw-r--r--. 1 root root 0 Jul 20 09:45 file2
-rw-r--r--. 1 root root 0 Jul 20 09:45 file3
-rw-r--r--. 1 root root 0 Jul 20 09:45 file4
-rw-r--r--. 1 root root 0 Jul 20 09:45 file5
[root@ip-172-31-1-172 ec2-user]#
```

- In long list, for check hidden or dot file type “ll -a” command.

```
[root@ip-172-31-1-172 ec2-user]# ll -a
total 36
drwx-----. 3 ec2-user ec2-user 16384 Jul 20 09:45 .
drwxr-xr-x. 3 root      root      22 Jul 20 08:02 ..
-rw-----. 1 ec2-user ec2-user    8 Jul 20 08:13 .bash_history
-rw-r--r--. 1 ec2-user ec2-user   18 Jan 28  2023 .bash_logout
-rw-r--r--. 1 ec2-user ec2-user  141 Jan 28  2023 .bash_profile
-rw-r--r--. 1 ec2-user ec2-user  492 Jan 28  2023 .bashrc
drwx-----. 2 ec2-user ec2-user   29 Jul 20 08:02 .ssh
-rw-r--r--. 1 root      root        0 Jul 20 09:45 2
-rw-r--r--. 1 root      root        0 Jul 20 09:45 3
-rw-r--r--. 1 root      root        0 Jul 20 09:45 4
-rw-r--r--. 1 root      root        0 Jul 20 09:45 5
-rw-r--r--. 1 root      root       32 Jul 20 09:42 file1
-rw-r--r--. 1 root      root        0 Jul 20 09:45 file2
-rw-r--r--. 1 root      root        0 Jul 20 09:45 file3
-rw-r--r--. 1 root      root        0 Jul 20 09:45 file4
-rw-r--r--. 1 root      root        0 Jul 20 09:45 file5
[root@ip-172-31-1-172 ec2-user]#
```

- For remove file, type “rm file2” command. It asks permission “remove regular empty file ‘file2’?” type “y”.

```
[root@ip-172-31-1-172 ec2-user]# rm file2
rm: remove regular empty file 'file2'? y
[root@ip-172-31-1-172 ec2-user]#
```

- If you don't want permission to remove file type "rm -f file3" command. f stands for forcefully.

```
[root@ip-172-31-1-172 ec2-user]# rm -f file3
[root@ip-172-31-1-172 ec2-user]# ls
2 3 4 5 file1 file4 file5
[root@ip-172-31-1-172 ec2-user]#
```

- For deleting internal files, type "rm -rvf file4" command. rvf stands for "recursive verbose forcefully" and it shows "removed".

```
[root@ip-172-31-1-172 ec2-user]# rm -rvf file4
removed 'file4'
[root@ip-172-31-1-172 ec2-user]#
```

- For removing all files with the name of 'file', type "rm -rvf file*".

```
[root@ip-172-31-1-172 ec2-user]# rm -rvf file*
removed 'file1'
removed 'file5'
[root@ip-172-31-1-172 ec2-user]#
```

- For creating directory, type "mkdir my" command and then "my" name directory created.

```
[root@ip-172-31-1-172 ec2-user]# mkdir my
[root@ip-172-31-1-172 ec2-user]# ls
2 3 4 5 my
[root@ip-172-31-1-172 ec2-user]#
```

- For creating internal file in "my" type "mkdir my/abc" command.

```
[root@ip-172-31-1-172 ec2-user]# mkdir my/abc
ls: cannot access './my': No such file or directory
[root@ip-172-31-1-172 ec2-user]# ls my/
abc
[root@ip-172-31-1-172 ec2-user]#
```

- For go to internal file of my, type "cd my/" command.

```
[root@ip-172-31-1-172 ec2-user]# cd my/
[root@ip-172-31-1-172 my]#
```


- For typing internal file type “cat > ql” command where ql is file.

```
[root@ip-172-31-1-172 my]# cat > ql
this is ql file
[root@ip-172-31-1-172 my]# cat ql
this is ql file
[root@ip-172-31-1-172 my]#
```

- For going one step back, type “cd ..” command.

```
[root@ip-172-31-1-172 my]# cd ..
[root@ip-172-31-1-172 ec2-user]#
```

- Type “ll -a” command where you see those files which start from ‘d’ means ‘directory’ and ‘l’ means ‘list’ and ‘-’ means ‘file’.

```
[root@ip-172-31-1-172 ec2-user]# ll -a
total 16
drwx-----. 4 ec2-user ec2-user 141 Jul 20 10:05 .
drwxr-xr-x. 3 root      root      22 Jul 20 08:02 ..
-rw-----. 1 ec2-user ec2-user   8 Jul 20 08:13 .bash_history
-rw-r--r--. 1 ec2-user ec2-user  18 Jan 28  2023 .bash_logout
-rw-r--r--. 1 ec2-user ec2-user 141 Jan 28  2023 .bash_profile
-rw-r--r--. 1 ec2-user ec2-user 492 Jan 28  2023 .bashrc
drwx-----. 2 ec2-user ec2-user  29 Jul 20 08:02 .ssh
-rw-r--r--. 1 root      root        0 Jul 20 09:45 2
-rw-r--r--. 1 root      root        0 Jul 20 09:45 3
-rw-r--r--. 1 root      root        0 Jul 20 09:45 4
-rw-r--r--. 1 root      root        0 Jul 20 09:45 5
drwxr-xr-x. 3 root      root      27 Jul 20 10:11 my
[root@ip-172-31-1-172 ec2-user]#
```

- For going to ‘block’, type “cd /dev/block” command.

```
[root@ip-172-31-1-172 ec2-user]# cd /dev/block
[root@ip-172-31-1-172 block]#
```

- For going to ‘bin’, type “cd ../../bin”.

```
[root@ip-172-31-1-172 block]# cd ../../bin
[root@ip-172-31-1-172 bin]#
```

- If you forget your current location, type “pwd” command.

```
[root@ip-172-31-1-172 bin]# pwd
/bin
[root@ip-172-31-1-172 bin]#
```

- For check list in, type “ls /bin” command.

```
cifsiostat      id          passwd      sha256sum      vlock
cksum           info        paste       sha384hmac      vmstat
clear           infocmp     pathchk     sha384sum       w
               infotocap   peekfd      sha512hmac      wait
cloud-id        install     perl        sha512sum       wall
cloud-init      ionice      perl5.32.1  showconsolefont watch
cloud-init-per  iostat     perldoc     showkey         wc
cmp            ipcmk      pgrep       shred           wcurl
col            ipcrm      pic         shuf            wdctl
colcrt         ipcs       piconv     sim_lsmlplugin  wget
colrm          irqtop     pidof       simc_lsmlplugin whatis
column         isosize    pidstat     size            whatis.man-db
comm           jemalloc.sh pidwait     skill           whereis
command        jobs       ping        slabtop         which
coredumpctl    join       pinky       sleep           whiptail
cp             journalctl pkg-config   sm3hmac         who
cpio           jp.py      pkgconf     snice           whoami
cpupower       jq         pkill       soelim          x86_64
csh            jsongdiff  pldd        soelim.groff   x86_64-amazon-linux-gnu-pkg-config
csplit        jsongdiff-3.9  pod2man    sort            x86_energy_perf_policy
curl          jsongdiff-3.9  pod2text   sotruss         xargs
cut           jsonpatch     pod2usage  split           xgettext
cvsudoers     jsonpatch-3.9  portablectl ssh             xmlcatalog
cyrusbdb2current  jsonpointer  post-grohtml ssh-add         xmlint
date          jsonpointer-3  powernow-k8-decode  ssh-agent       xmlwf
dbus-broker    jsonpointer-3.9  pr         ssh-copy-id    xxd
dbus-broker-launch  jsonschema   pre-grohtml ssh-keygen      xz
dc            kbd_mode     preconvm   ssh-keyscan    xzcat
dd            kbdinfo      printenv   ssm-agent-worker xzcmp
deallcvt      kbdinfo      printf     ssm-cli         xzdec
debuginfo-install  kbrate       prlimit    ssm-document-worker xzdiff
debuginfod-find  kernel-install  prtstat    ssm-session-logger xzegrep
delv          keyctl       ps         ssm-session-worker xzfgrep
df            kill         psfaddtable sss_ssh_authorizedkeys xzgrep
diff          killall      psfgettable sss_ssh_knownhostsproxy xzless
diff3         kmod         psfstriptable  stap-merge     xzmore
dig           last
```

- For adding user, type “useradd user1” command where ‘user1’ is user name.

```
[root@ip-172-31-1-172 /]# cat > q1
[root@ip-172-31-1-172 /]# useradd user1
[root@ip-172-31-1-172 /]#
```

- For switching user, type “su user1” command.

```
[root@ip-172-31-1-172 /]# su user1
[user1@ip-172-31-1-172 /]$
```

- **For update using vim:**
- Create file type “touch file1” command.
- For typing, type “cat >file1” command.
- For check, type “cat file1” command.
- For update, type “vim file1” command.

```
[root@ip-172-31-1-172 ec2-user]# cat > file1
this is file1!
[root@ip-172-31-1-172 ec2-user]# cat file1
this is file1!
[root@ip-172-31-1-172 ec2-user]# vim file1
[root@ip-172-31-1-172 ec2-user]#
```

- For insert, type 'i' from keyboard.

```
this is file1!  
this is updatation.
```

```
-- INSERT --
```

1

- For exit, click on 'esc' from keyboard.

- For save, type ‘:’.
- For write, type ‘w’ from keyboard.
- For quit, type ‘q’ from keyboard.



```
-- INSERT --
-- I we was what
:wq
```

- Then see updated version.

```
[root@ip-172-31-1-172 ec2-user]# vim file1
[root@ip-172-31-1-172 ec2-user]# cat file1
this is file1!
this is updation.
[root@ip-172-31-1-172 ec2-user]#
```

For changing file permission:

- Only execution permission, type “chmod 111 file1” command. ‘x’ stands for ‘execute’.

```

[root@ip-172-31-1-172 ec2-user]# chmod 111 file1
[root@ip-172-31-1-172 ec2-user]# ls
2 3 4 5 file1 my
[root@ip-172-31-1-172 ec2-user]# ll -a
total 20
drwx-----. 4 ec2-user ec2-user 154 Jul 20 17:48 .
drwxr-xr-x. 4 root      root      35 Jul 20 10:31 ..
-rw-----. 1 ec2-user ec2-user   8 Jul 20 08:13 .bash_history
-rw-r--r--. 1 ec2-user ec2-user  18 Jan 28  2023 .bash_logout
-rw-r--r--. 1 ec2-user ec2-user 141 Jan 28  2023 .bash_profile
-rw-r--r--. 1 ec2-user ec2-user 492 Jan 28  2023 .bashrc
drwx-----. 2 ec2-user ec2-user  29 Jul 20 08:02 .ssh
-rw-r--r--. 1 root      root        0 Jul 20 09:45 2
-rw-r--r--. 1 root      root        0 Jul 20 09:45 3
-rw-r--r--. 1 root      root        0 Jul 20 09:45 4
-rw-r--r--. 1 root      root        0 Jul 20 09:45 5
---x--x--x. 1 root      root       33 Jul 20 17:48 file1
drwxr-xr-x. 3 root      root       27 Jul 20 10:11 my

```

- Only write permission, type “chmod 222 file1” command. ‘w’ stands for ‘write’.

```

[root@ip-172-31-1-172 ec2-user]# chmod 222 file1
[root@ip-172-31-1-172 ec2-user]# ll -a
total 20
drwx-----. 4 ec2-user ec2-user 154 Jul 20 17:48 .
drwxr-xr-x. 4 root      root      35 Jul 20 10:31 ..
-rw-----. 1 ec2-user ec2-user   8 Jul 20 08:13 .bash_history
-rw-r--r--. 1 ec2-user ec2-user  18 Jan 28  2023 .bash_logout
-rw-r--r--. 1 ec2-user ec2-user 141 Jan 28  2023 .bash_profile
-rw-r--r--. 1 ec2-user ec2-user 492 Jan 28  2023 .bashrc
drwx-----. 2 ec2-user ec2-user  29 Jul 20 08:02 .ssh
-rw-r--r--. 1 root      root        0 Jul 20 09:45 2
-rw-r--r--. 1 root      root        0 Jul 20 09:45 3
-rw-r--r--. 1 root      root        0 Jul 20 09:45 4
-rw-r--r--. 1 root      root        0 Jul 20 09:45 5
--w--w--w-. 1 root      root       33 Jul 20 17:48 file1
drwxr-xr-x. 3 root      root       27 Jul 20 10:11 my

```

- Only read permission, type “chmod 444 file1” command. ‘r’ stands for ‘read’.

```

[root@ip-172-31-1-172 ec2-user]# chmod 444 file1
[root@ip-172-31-1-172 ec2-user]# ll -a
total 20
drwx-----. 4 ec2-user ec2-user 154 Jul 20 17:48 .
drwxr-xr-x. 4 root      root      35 Jul 20 10:31 ..
-rw-----. 1 ec2-user ec2-user   8 Jul 20 08:13 .bash_history
-rw-r--r--. 1 ec2-user ec2-user  18 Jan 28  2023 .bash_logout
-rw-r--r--. 1 ec2-user ec2-user 141 Jan 28  2023 .bash_profile
-rw-r--r--. 1 ec2-user ec2-user 492 Jan 28  2023 .bashrc
drwx-----. 2 ec2-user ec2-user  29 Jul 20 08:02 .ssh
-rw-r--r--. 1 root      root        0 Jul 20 09:45 2
-rw-r--r--. 1 root      root        0 Jul 20 09:45 3
-rw-r--r--. 1 root      root        0 Jul 20 09:45 4
-rw-r--r--. 1 root      root        0 Jul 20 09:45 5
-r--r--r--. 1 root      root       33 Jul 20 17:48 file1
drwxr-xr-x. 3 root      root       27 Jul 20 10:11 my

```

- Only all permission, type “chmod 777 file1” command. ‘rwx’ stands for ‘read write execution’.

```
[root@ip-172-31-1-172 ec2-user]# chmod 777 file1
[root@ip-172-31-1-172 ec2-user]# ll -a
total 20
drwx-----. 4 ec2-user ec2-user 154 Jul 20 17:48 .
drwxr-xr-x. 4 root      root      35 Jul 20 10:31 ..
-rw-----. 1 ec2-user ec2-user   8 Jul 20 08:13 .bash_history
-rw-r--r--. 1 ec2-user ec2-user  18 Jan 28  2023 .bash_logout
-rw-r--r--. 1 ec2-user ec2-user 141 Jan 28  2023 .bash_profile
-rw-r--r--. 1 ec2-user ec2-user 492 Jan 28  2023 .bashrc
drwx-----. 2 ec2-user ec2-user  29 Jul 20 08:02 .ssh
-rw-r--r--. 1 root      root        0 Jul 20 09:45 2
-rw-r--r--. 1 root      root        0 Jul 20 09:45 3
-rw-r--r--. 1 root      root        0 Jul 20 09:45 4
-rw-r--r--. 1 root      root        0 Jul 20 09:45 5
-rwxrwxrwx. 1 root      root        33 Jul 20 17:48 file1
drwxr-xr-x. 3 root      root        27 Jul 20 10:11 my
[root@ip-172-31-1-172 ec2-user]#
```

- For copy, type file name with “cp”.
- For move, type file name with “mv”.