

## Assignment (02/07/2024)

### 1. Create 3 instance

#### A. Attach one EFS to two instances

#### B. Attach one EBS to two instances

A.

EFS- EFS is nothing but Elastic file system

Its memory will be increased up to petabytes

For example ;we are having a drive and we can access that drive from mobile ,laptop and as well as tab also.

If we inserted data in drive from laptop , the same data will be seen and can be accessed from mobile and as well as in tab too.

Similar in tab and mobile too.

In this way EFS will work that means we can connect one EFS to two instances at a time and can access the data.

For creating EFS and attaching it to the instance ,first we need to create security group > give name for security group > give description as allow > VPC will be given by default.

EC2 > Security Groups > Create security group

### Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below

**Basic details**

Security group name [Info](#)

Name cannot be edited after creation.

Description [Info](#)

VPC [Info](#)

Now edit inbound rules > type – SSH > source – IPV4

**Inbound rules** [Info](#)

Type <a href="#">Info</a>	Protocol <a href="#">Info</a>	Port range <a href="#">Info</a>	Source <a href="#">Info</a>	Description - optional <a href="#">Info</a>
SSH ▼	TCP	22	Any... ▼	

0.0.0.0/0 ✕

[Add rule](#) [Delete](#)


Click on create security group.

[Cancel](#) [Create security group](#)

Now search for EFS and open EFS.

Search results for 'EFS'

**Services** [See all 18 results ▶](#)

 **EFS** ☆  
Managed File Storage for EC2

Click on Create file system.

# Amazon Elastic File System

Scalable, elastic, cloud-native NFS file system

**Create file system**

Create an EFS file system with recommended settings.

[Create file system](#)

Give name for created file system and then click on customize.

**Create file system** [X]

Create an EFS file system with recommended settings. [Learn more](#)

**Name - optional**  
Name your file system.

Name can include letters, numbers, and +-=.\_:/ symbols, up to 256 characters.

**Virtual Private Cloud (VPC)**  
Choose the VPC where you want EC2 instances to connect to your file system.

default [v]

Remove all the security groups which will appear there and select the security group which we have created which is named as My-efs-1 and then click on next > next > create.

us-east-1d [v] subnet-02a8c... [v] Automatic Choose securit... [v] Remove

us-east-1f [v] subnet-0a385... [v] Automatic Choose securit... [v] Remove

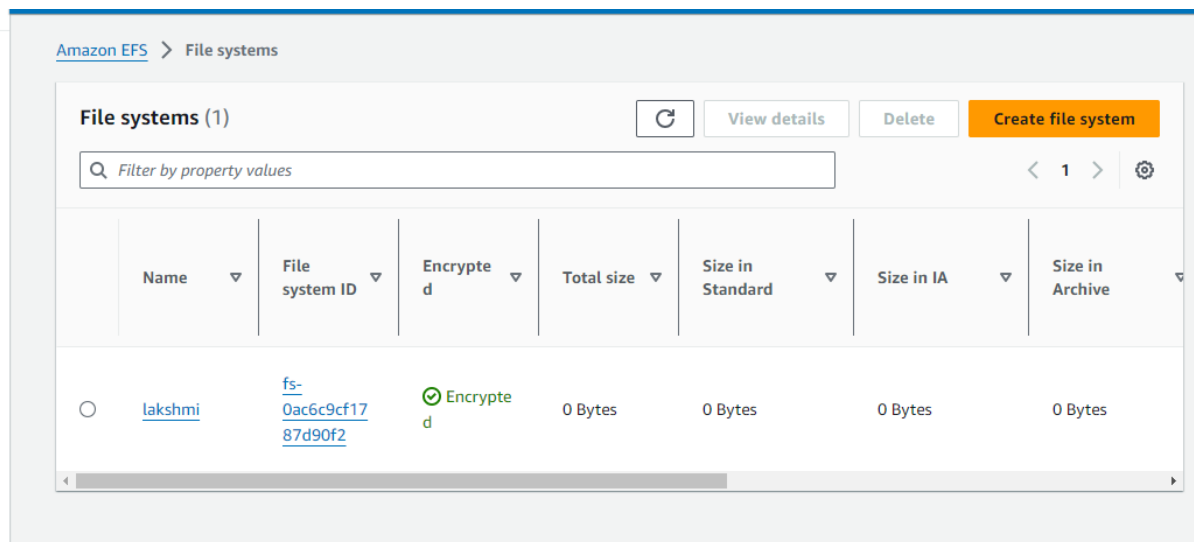
Add mount target

sg-091d312a35a32a3ca My-efs-1 [X]

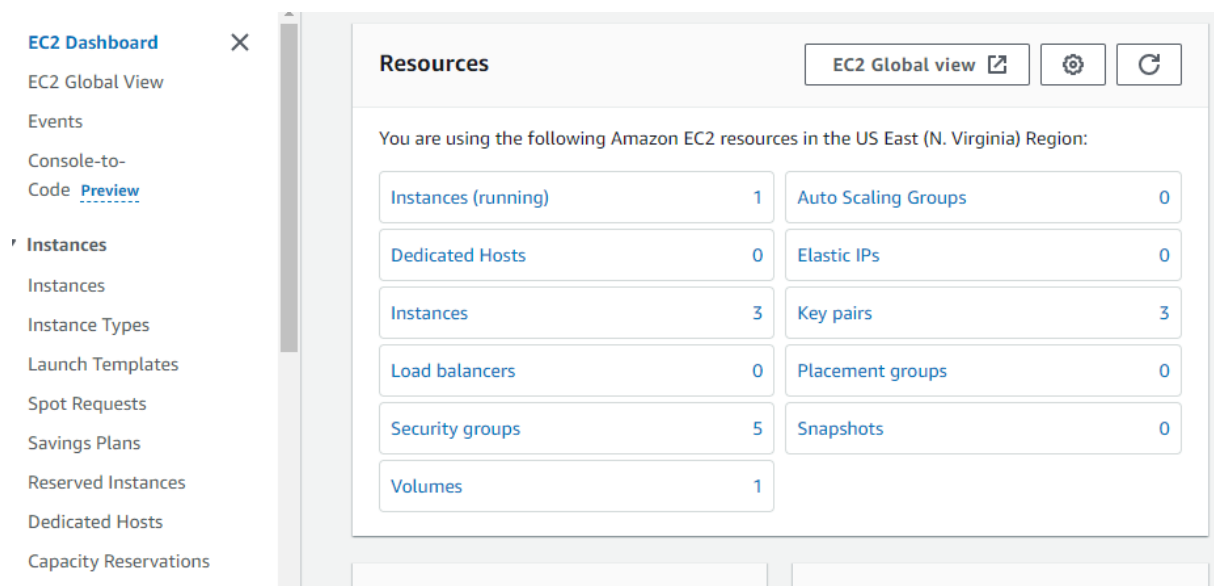
sg-091d312a35a32a3ca My-efs-1 [X]

sg-091d312a35a32a3ca My-efs-1 [X]

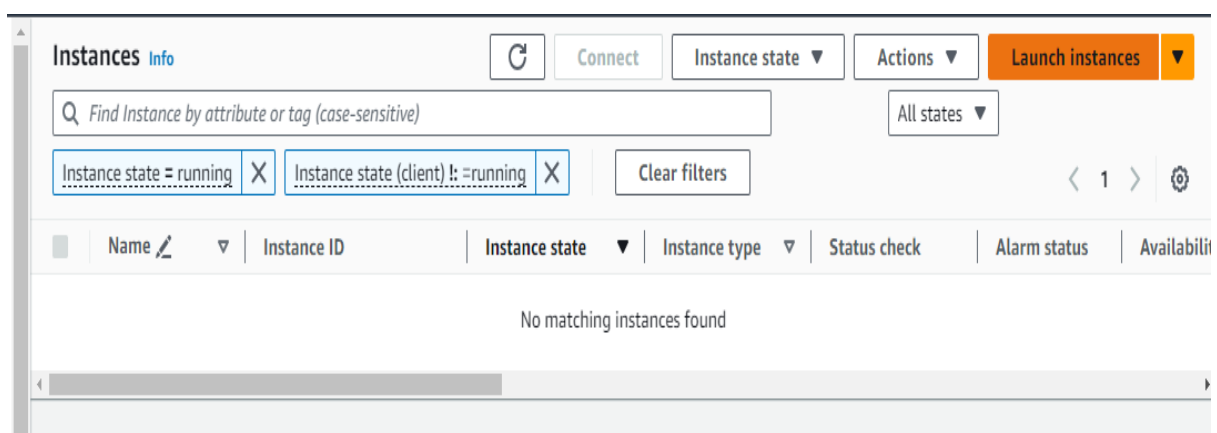
Now the file system will be created.



Open EC2 dashboard and open instances.



Click on launch instances.



Give name to the instance .

EC2 > Instances > Launch an instance

## Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

### Name and tags [Info](#)

Name

swethaaa

Add additional tags

EFS will not be able to work with ubuntu , It only works with Amazon Linux. So select AWS.

[Quick Start](#)

Amazon Linux  
aws


macOS  
Mac

Ubuntu  
ubuntu

Windows  
Microsoft

Red Hat  
Red Hat

SUSE Linux  
SUS

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

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

Free tier eligible

Click on create new key pair and name it and then click on create key pair.

### Create key pair

Key pair name  
Key pairs allow you to connect to your instance securely.

lakshmi

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type


☒ RSA  
RSA encrypted private and public key pair

☐ ED25519  
ED25519 encrypted private and public key pair

Private key file format

☒ .pem  
For use with OpenSSH

☐ .ppk  
For use with PuTTY

 When prompted, store the private key in a secure and accessible location on your device.

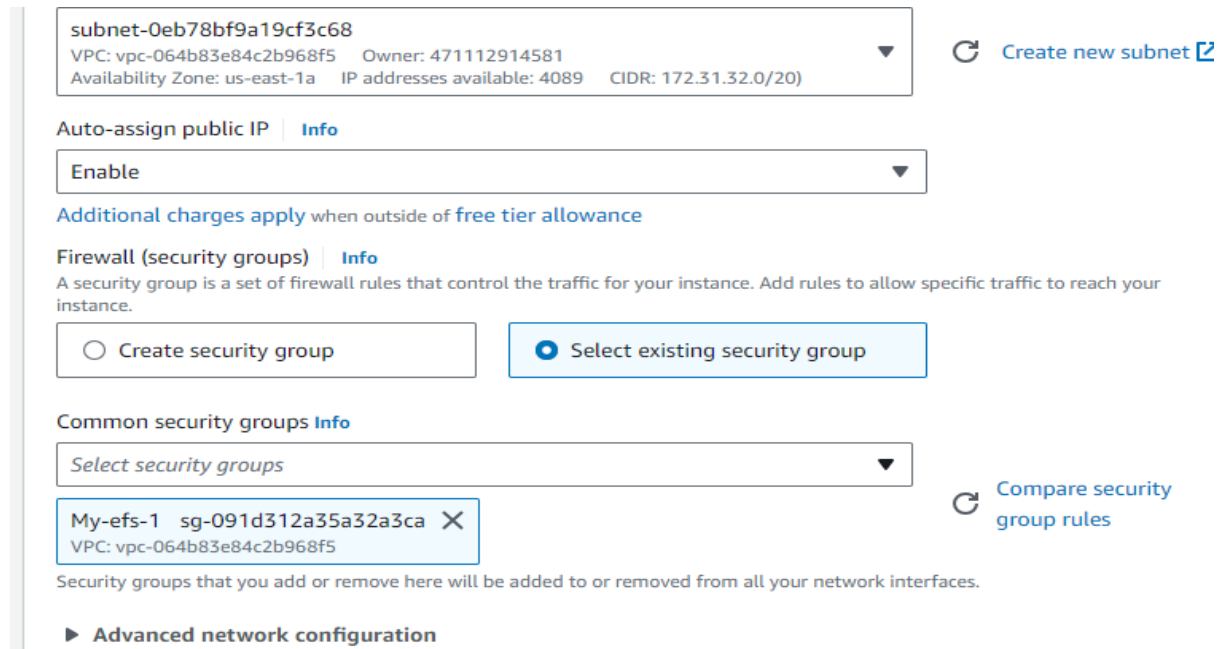
Cancel

Create key pair

After creating the key pair the .pem extension file will be downloaded.

Go to downloads > cut the .pem file > copy it on the desktop.

Go back to instance page and edit there it to enable and click on select existing security group and attach the created security group My-efs-1 .



subnet-0eb78bf9a19cf3c68  
VPC: vpc-064b83e84c2b968f5 Owner: 471112914581  
Availability Zone: us-east-1a IP addresses available: 4089 CIDR: 172.31.32.0/20

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

Common security groups [Info](#)  
Select security groups

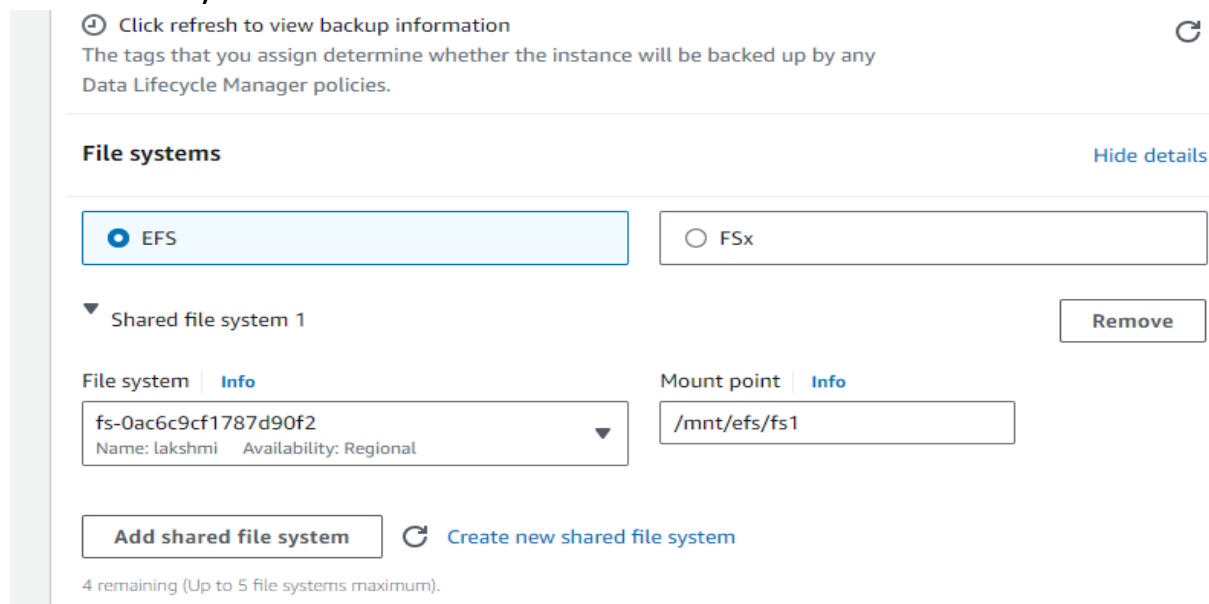
My-efs-1 sg-091d312a35a32a3ca X  
VPC: vpc-064b83e84c2b968f5

Compare security group rules

Security groups that you add or remove here will be added to or removed from all your network interfaces.

► Advanced network configuration

Click on edit > EFS > click on add shared file system then it will attach by automatically.



Click refresh to view backup information  
The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

File systems [Hide details](#)

☒ EFS ☐ FSx

▼ Shared file system 1 [Remove](#)

File system [Info](#) Mount point [Info](#)  
fs-0ac6c9cf1787d90f2 /mnt/efs/fs1  
Name: lakshmi Availability: Regional

[Add shared file system](#) [Create new shared file system](#)

4 remaining (Up to 5 file systems maximum).

Click on launch instance.

Name: lakshmi Availability: Regional

Add shared file system Create new shared file system

4 remaining (Up to 5 file systems maximum).

☒ Automatically create and attach security groups  
To enable access to the file system, the required security groups will be automatically created and attached to this instance and the selected file system. To manually manage the security groups, clear the checkbox. [Learn more.](#)

☒ Automatically mount shared file system by attaching required user data script  
Automatically mount your file system by updating your user data to install efs-utils. If you would like to manually mount your file system, clear the checkbox.

Amazon Linux 2023 AMI 2023.5.2...[read more](#)  
ami-06c68f701d8090592

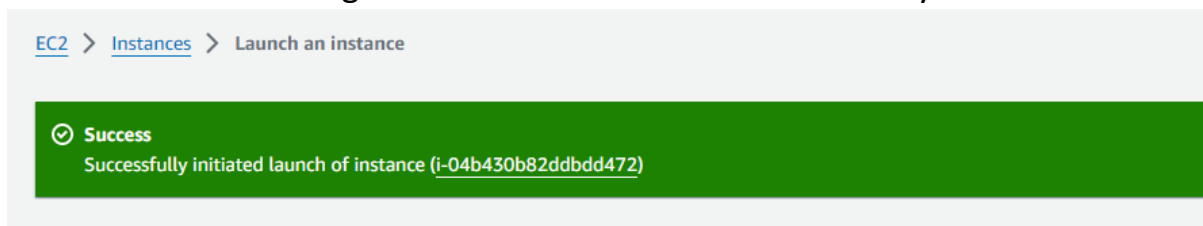
Virtual server type (instance type)  
t2.micro

Firewall (security group)  
My-efs-1

Storage (volumes)  
1 volume(s) - 8 GiB

Cancel Launch instance  
[Review commands](#)

It will show the message as the instance initiated successfully.



Open that created instance and click on connect then click on SSH Client , copy the Command as shown below.

EC2 Instance Connect Session Manager **SSH client** EC2 serial console

Instance ID  
i-04b430b82ddb472 (swethaaa)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is lakshmi.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.  
chmod 400 "lakshmi.pem"
4. Connect to your instance using its Public DNS:  
ec2-54-175-84-148.compute-1.amazonaws.com

Command copied

```
ssh -i "lakshmi.pem" ec2-user@ec2-54-175-84-148.compute-1.amazonaws.com
```

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

Open gitbash and paste it there , give confirmation as yes and connect it to server named ec2(amazon linux).

```
laksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/desktop
$ ssh -i "lakshmi.pem" ec2-user@ec2-54-175-84-148.compute-1.amazonaws.com
The authenticity of host 'ec2-54-175-84-148.compute-1.amazonaws.com (54.175.84.148)' can't be established.
ED25519 key fingerprint is SHA256:Exb0z4h1LEto0091Ap5NZCwnk87mD84KroSPNzAFVb4.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

It will connect to ec2 server.





Enter into insert mode 'i' and enter the data which you need to enter.

```
root@ip-172-31-36-135:/mnt/efs/fs1
swetha
chinni
sunny
mummy
daddy|
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
-- INSERT --
```

5,6 A11

For saving the file → esc + shift + : → wq

```
root@ip-172-31-36-135:/mnt/efs/fs1
[root@ip-172-31-36-135 fs1]# cd /mnt
[root@ip-172-31-36-135 mnt]# ls
efs
[root@ip-172-31-36-135 mnt]# cd efs
[root@ip-172-31-36-135 efs]# ls
fs1
[root@ip-172-31-36-135 efs]# cd fs1
[root@ip-172-31-36-135 fs1]# ls
[root@ip-172-31-36-135 fs1]# vi file1
[root@ip-172-31-36-135 fs1]# ls
file1
[root@ip-172-31-36-135 fs1]# |
```

Logout from that for creating another instances and insert file because to verify whether it will consist both the files created or not.



```
root@ip-172-31-88-7:/mnt/efs/fs1
```

```
taksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/Desktop
$ ssh -i "lakshmi.pem" ec2-user@ec2-34-201-126-163.compute-1.amazonaws.com

#_
###_      Amazon Linux 2023
#####\
####|\
#####|
##\#/    https://aws.amazon.com/linux/amazon-linux-2023
V~'-'->
~~
~~~~
~~-._.
   _/_/_/_/_
     /m/'-/_/_/_/_

Last login: Wed Jul 3 05:44:15 2024 from 124.123.187.60
[ec2-user@ip-172-31-88-7 ~]$ sudo -i
[root@ip-172-31-88-7 ~]# cd /mnt
[root@ip-172-31-88-7 mnt]# ls
efs
[root@ip-172-31-88-7 mnt]# cd efs
[root@ip-172-31-88-7 efs]# ls
fs1
[root@ip-172-31-88-7 efs]# cd fs1
[root@ip-172-31-88-7 fs1]# ls
file1
[root@ip-172-31-88-7 fs1]#
```

```
root@ip-172-31-88-7:/mnt/efs/fs1
[root@ip-172-31-88-7 fs1]# vi file2
[root@ip-172-31-88-7 fs1]#
```



```
[root@ip-172-31-88-7 fs1]# vi file2  
[root@ip-172-31-88-7 fs1]# ls  
file1 file2  
[root@ip-172-31-88-7 fs1]# exit  
logout  
[ec2-user@ip-172-31-88-7 ~]$ exit  
logout  
Connection to ec2-34-201-126-163.compute-1.amazonaws.com closed.  
  
laksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/Desktop  
$ ssh -i "lakshmii.pem" ec2-user@ec2-3-94-251-140.compute-1.amazonaws.com  
#_   
#####_ Amazon Linux 2023  
~\_____\#####\  
~~~\_____#\###|  
~~~~\___\#/_____  
~~~~V~'-'>  
~~~~  
~~~~_.._.  
~~_/_____  
__/_m/'_____  
  
Last login: wed Jul 3 05:52:06 2024 from 124.123.187.60  
[ec2-user@ip-172-31-36-135 ~]$ |
```

```
[ec2-user@ip-172-31-36-135 ~]$ sudo -i
[root@ip-172-31-36-135 ~]# cd /mnt
[root@ip-172-31-36-135 mnt]# ls
efs
[root@ip-172-31-36-135 mnt]# cd efs
[root@ip-172-31-36-135 efs]# ls
fs1
[root@ip-172-31-36-135 efs]# cd fs1
[root@ip-172-31-36-135 fs1]# ls
file1  file2
[root@ip-172-31-36-135 fs1]#
```

Instances (2/2) Info

Find Instance by attribute or tag (case-sensitive)

Instance state = running

Clear filters

Stop instance

Start instance

Reboot instance

Hibernate instance

Terminate instance

Alarm status


View alarms

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Instance state	Instance type
<input checked="" type="checkbox"/>	swethaa	i-059a35fcd28dd6ad1	Running	t2.micro	Running	t2.micro
<input checked="" type="checkbox"/>	swethaa2	i-0e05319fe45eadbf	Running	t2.micro	Running	t2.micro





Confirm as 'terminate'.

attribute or tag (case-sensitive) All states

### Terminate instances?

 On an EBS-backed instance, the default action is for the root EBS volume to be deleted when the instance is terminated. Storage on any local drives will be lost.






Are you sure you want to terminate these instances?


Instance ID	Termination protection
 i-059a35fcd28dd6ad1 (swethaa)	 Disabled
 i-0e05319fe45eadbfb (swethaa2)	 Disabled


To confirm that you want to terminate the instances, choose the terminate button below. Instances with termination protection enabled will not be terminated. Terminating the instance cannot be undone.










Cancel **Terminate**




It will shut down first.

Instances (2/2) Info   Instance state  Actions  **Launch instances** 






All states 


Instance state = running  Clear filters








<input checked="" type="checkbox"/>	Name 	Instance ID	Instance state 	Instance type 	Status check	Alarm status	Availability zone
<input checked="" type="checkbox"/>	swethaa	i-059a35fcd28dd6ad1	 Shutting-d...	t2.micro	 2/2 checks passec	<a href="#">View alarms</a> 	us-east-1a
<input checked="" type="checkbox"/>	swethaa2	i-0e05319fe45eadbfb	 Shutting-d...	t2.micro	 2/2 checks passec	<a href="#">View alarms</a> 	us-east-1c

2 instances selected   

And then it goes to terminate state.

Instances (2) Info   Instance state  Actions  **Launch instances** 

All states 

<input type="checkbox"/>	Name 	Instance ID	Instance state 	Instance type 	Status check	Alarm status	Availability zone
<input type="checkbox"/>	swethaa	i-059a35fcd28dd6ad1	 Terminated	t2.micro	-	<a href="#">View alarms</a> 	us-east-1a
<input type="checkbox"/>	swethaa2	i-0e05319fe45eadbfb	 Terminated	t2.micro	-	<a href="#">View alarms</a> 	us-east-1c

B.

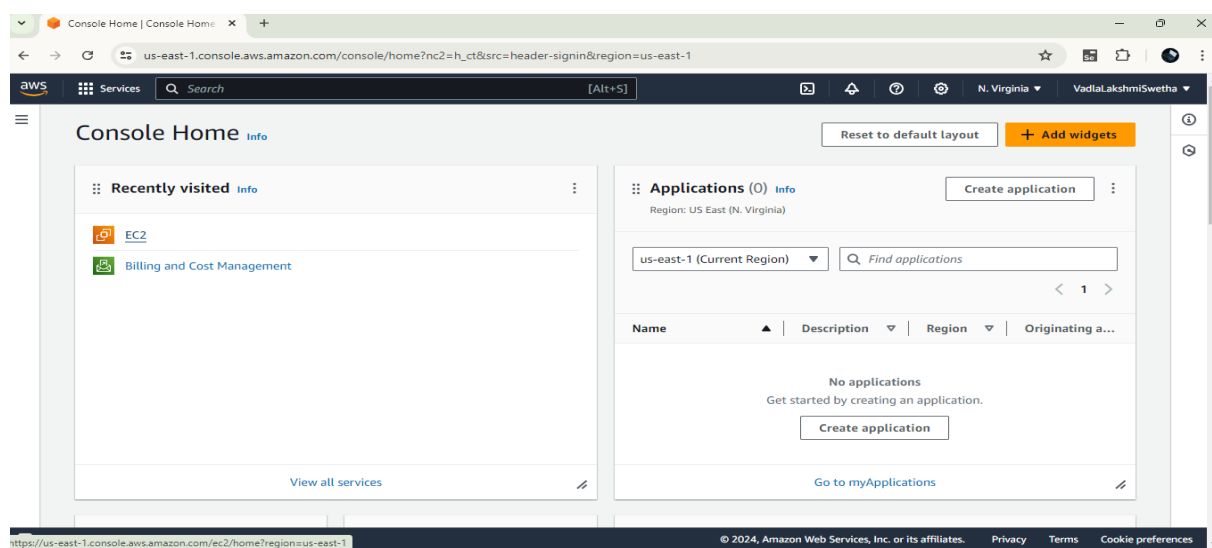
## EBS- Elastic Block Storage

Only one instance can be connected to EBS once.

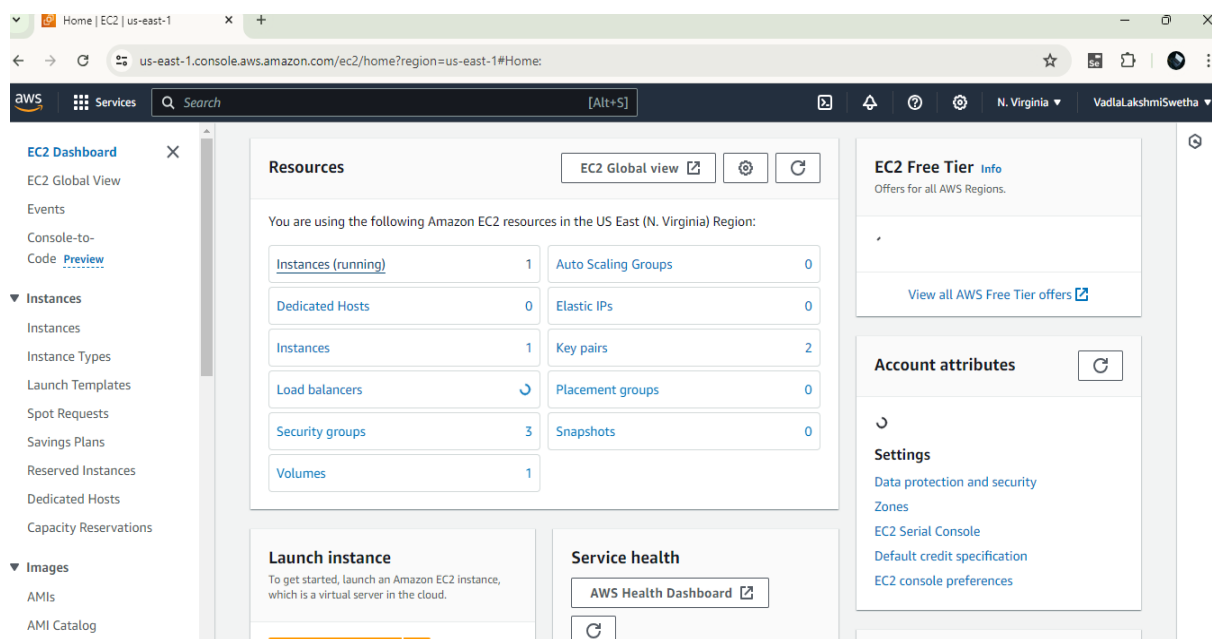
After the detachment of one instance from EBS server then only we can attach another instance that EBS server.

No fixed memory is allocated for EBS , the memory will be increased/ decreased based on the actions we take / user take.

Go to EC2 dashboard.



Click on instances.



Click on launch instances.

Instances [Info](#)

Connect

Instance state

▼

Actions

▼

Launch instances

▼

Find Instance by attribute or tag (case-sensitive)

All states

▼

Instance state = running

×

Clear filters

<

1

>

⚙

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zo
No matching instances found							

Give the instance name and select ubuntu server.

EC2

>

Instances

>

Launch an instance

Launch an instance

[Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

[Info](#)

Name

Sweety

Add additional tags

▼

Summary

Number of instances

[Info](#)

1

Software Image (AMI)

Canonical, Ubuntu, 24.04 LTS, ...read more

ami-04a81a99f5ec58529

Virtual server type (instance type)

t2.micro

Firewall (security group)

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

aws

macOS

Mac

Ubuntu

ubuntu

Windows

Microsoft

Red Hat

Red Hat

SUSE Linux

SUS

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

Free tier eligible

▼

ami-04a81a99f5ec58529 (64-bit (x86)) / ami-0c14ff330901e49ff (64-bit (Arm))

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



Create new key pair > RSA > .pem > create key pair.

▼ **Key pair (login)** [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

Select



[Create new key pair](#)

## Create key pair



### Key pair name

Key pairs allow you to connect to your instance securely.

lucky

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

### Key pair type



**RSA**

RSA encrypted private and public key pair



**ED25519**

ED25519 encrypted private and public key pair

### Private key file format



**.pem**

For use with OpenSSH



**.ppk**

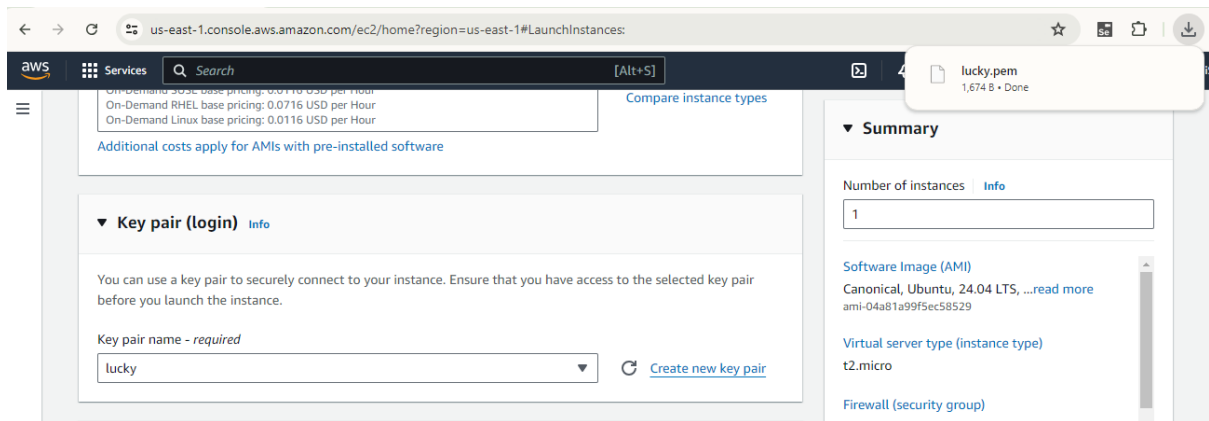
For use with PuTTY



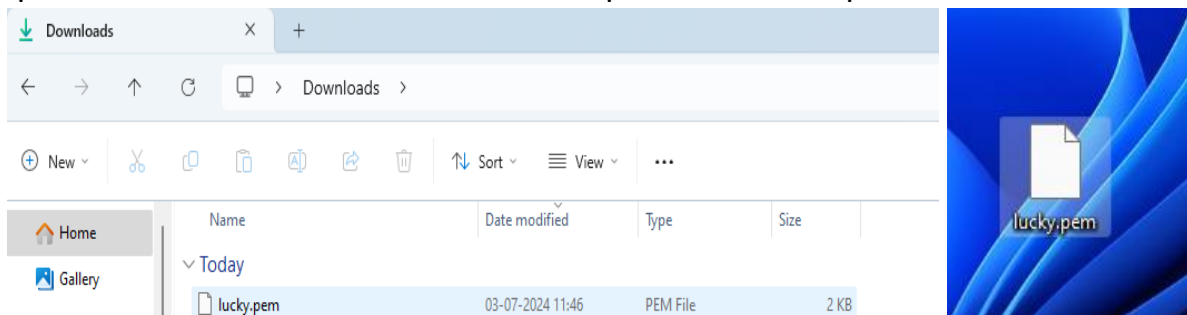
When prompted, store the private key in a secure and accessible location on

Cancel

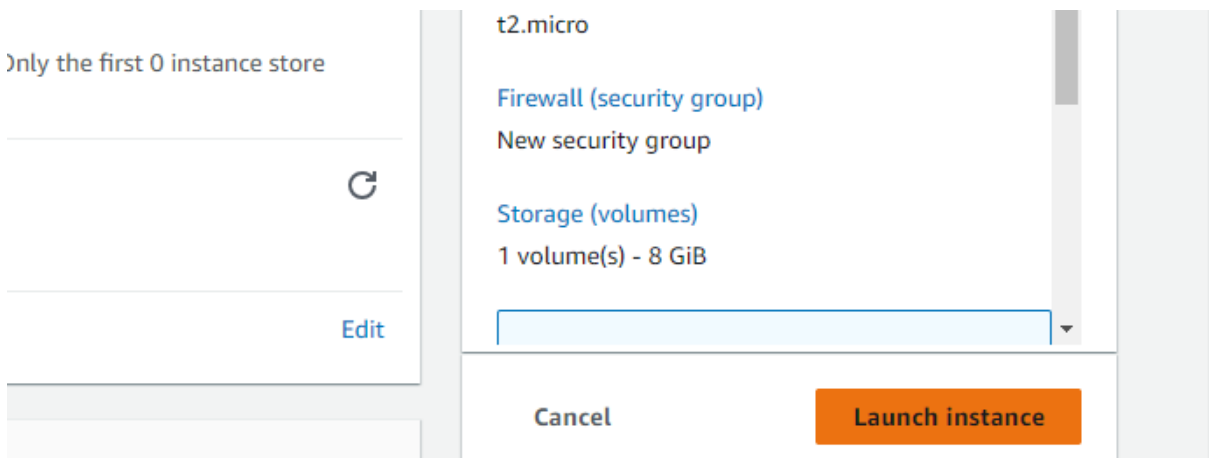
Create key pair



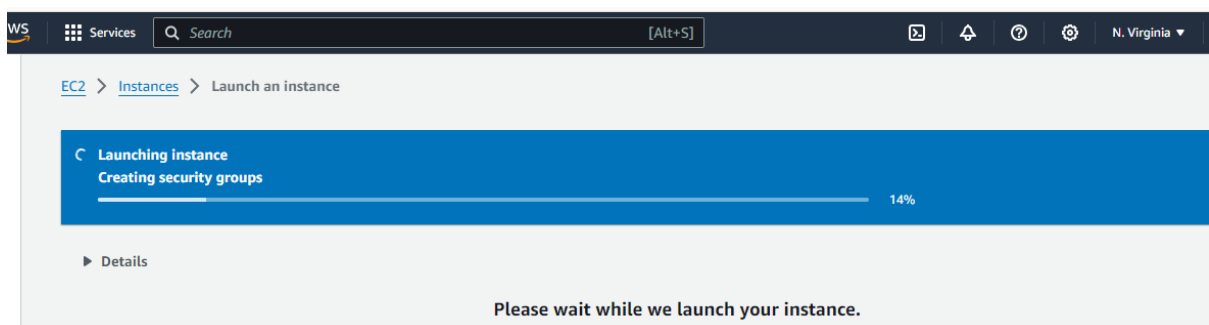
.pem file will be downloaded cut it and paste on desktop.



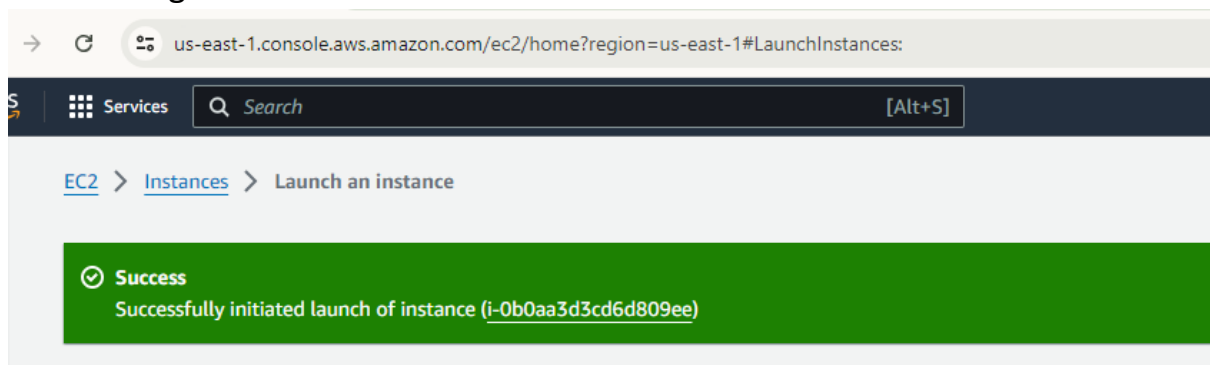
Click on launch instance.



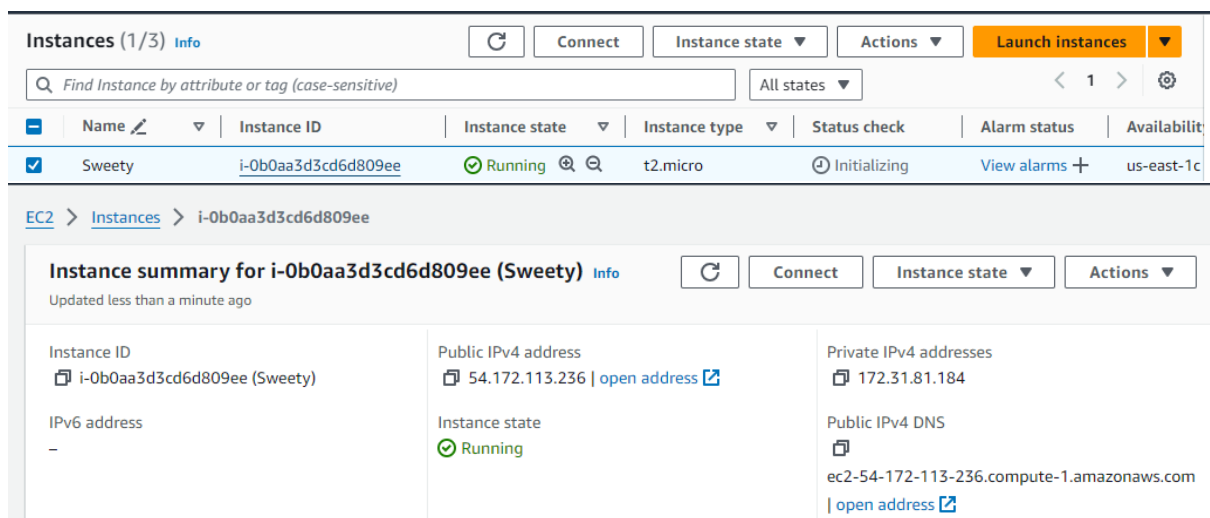
It will start to launch the instance.



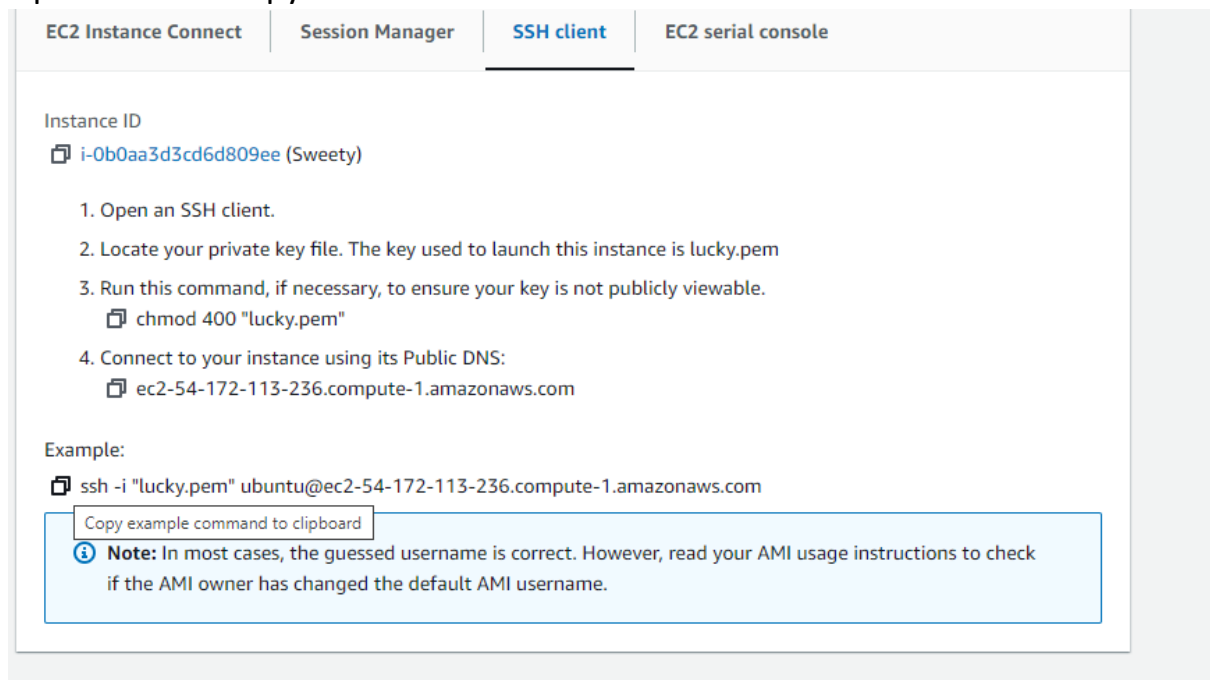
The message will be shown as the instance is launched.



Click on instance ID and click on connect.



Open SSH and copy the command.



Paste in gitbish and connect to the server.

```
laksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/Desktop
$ ssh -i "lucky.pem" ubuntu@ec2-54-172-113-236.compute-1.amazonaws.com
The authenticity of host 'ec2-54-172-113-236.compute-1.amazonaws.com (54.172.113.236)' can't be established.
ED25519 key fingerprint is SHA256:FauZG+fBsPFR8xyKczo3F0jxHRxsFRsXqXJYGR5GcLg.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-172-113-236.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1009-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Wed Jul  3 06:19:26 UTC 2024

System load:  0.67           Processes:           105
Usage of /:   22.7% of 6.71GB Users logged in:        0
Memory usage: 20%           IPv4 address for enx0: 172.31.81.184
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-81-184:~$
```

For connecting with root user use the command `sudo -i`.

```
ubuntu@ip-172-31-81-184:~$ sudo -i
root@ip-172-31-81-184:~# |
```

For checking the disk usage use the command `df -h`.

```
root@ip-172-31-81-184: ~
root@ip-172-31-81-184:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.6G  5.2G  23% /
tmpfs            479M    0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M    0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-81-184:~# |
```

Now logout from the server.

```
MINGW64/c/Users/laksh/OneDrive/Desktop
root@ip-172-31-81-184:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.6G  5.2G  23% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-81-184:~# exit
logout
ubuntu@ip-172-31-81-184:~$ exit
logout
Connection to ec2-54-172-113-236.compute-1.amazonaws.com closed.

laksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/Desktop
$
```

Go to elastic block store and open volumes there , it is used for increasing the size of the memory.

## ▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Now click on the checkbox of the displaying volume .

Volumes (1/1) Info									
<input type="text" value="Search"/>									
<input checked="" type="checkbox"/>	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Cre	
<input checked="" type="checkbox"/>	-	vol-081c9d928a6f72fec	gp3	8 GiB	3000	125	snap-0e23f46...	202	

Click on actions and then modify volume.

Volumes (1/1) Info							
<input type="text" value="Search"/>							
<input checked="" type="checkbox"/>	Name	Volume ID	Type	Size	IOPS	Throu	
<input checked="" type="checkbox"/>	-	vol-081c9d928a6f72fec	gp3	8 GiB	3000	125	

Volume ID: vol-081c9d928a6f72fec

Details | Status checks | Monitoring | Tags

Actions ▲

Create volume

Modify volume

Create snapshot

Create snapshot lifecycle policy

Delete volume

Attach volume

Detach volume

Force detach volume

Manage auto-enabled I/O


Manage tags

Fault injection ▶

The actual size (GiB) is 8.

**Volume details**

Volume ID

 vol-081c9d928a6f72fec

Volume type

[Info](#)

General Purpose SSD (gp3) ▼

Size (GiB)

[Info](#)

8 ▼

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS

[Info](#)

3000

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s)

[Info](#)

125

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.


Cancel

Modify

Now I'm changing the size from 8 GiB to 20 GiB.

**Volume details**

Volume ID

 vol-081c9d928a6f72fec

Volume type

[Info](#)

General Purpose SSD (gp3) ▼

Size (GiB)

[Info](#)

20 ▼

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS

[Info](#)

3000

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s)

[Info](#)

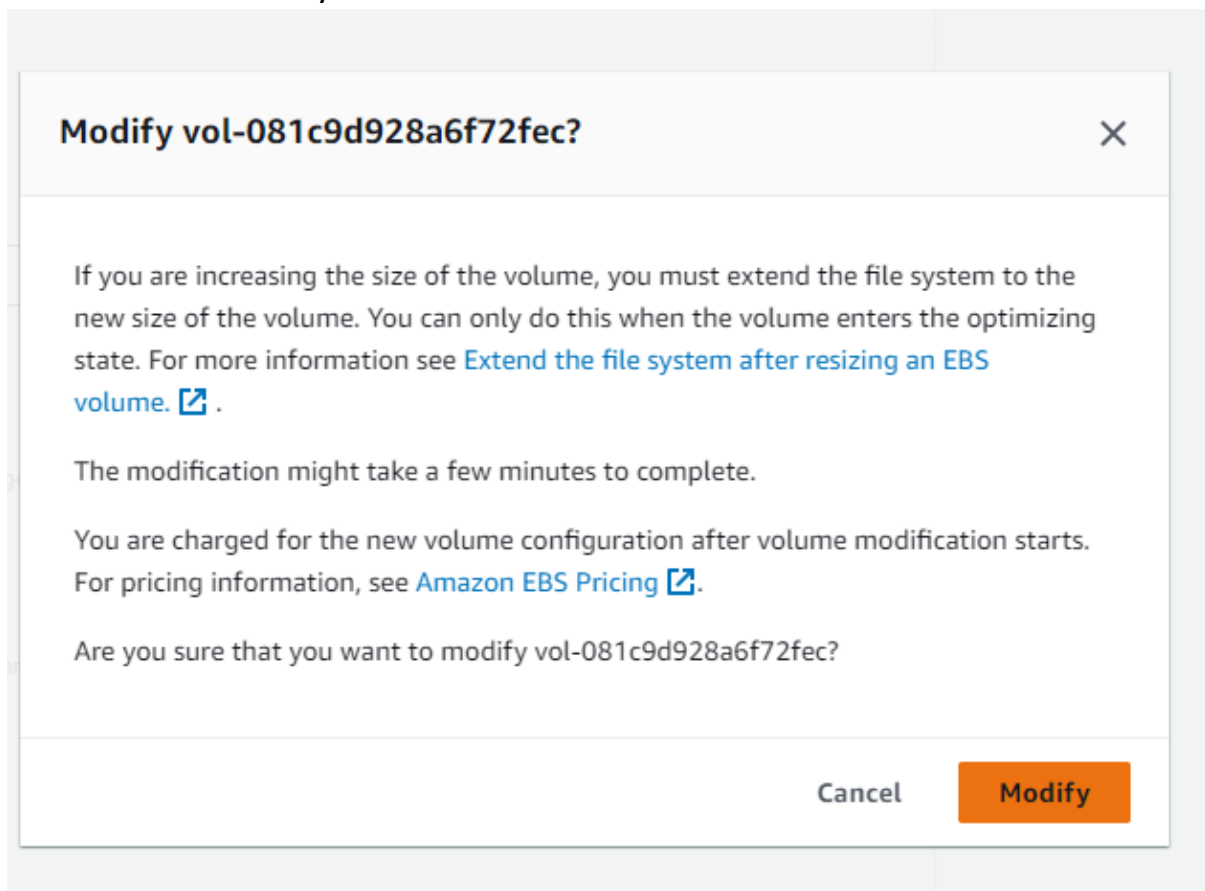
125

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

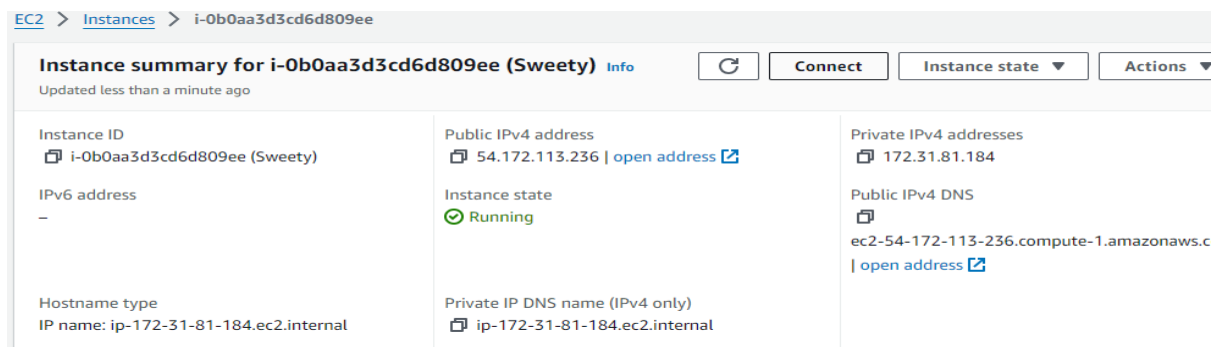
Cancel

Modify

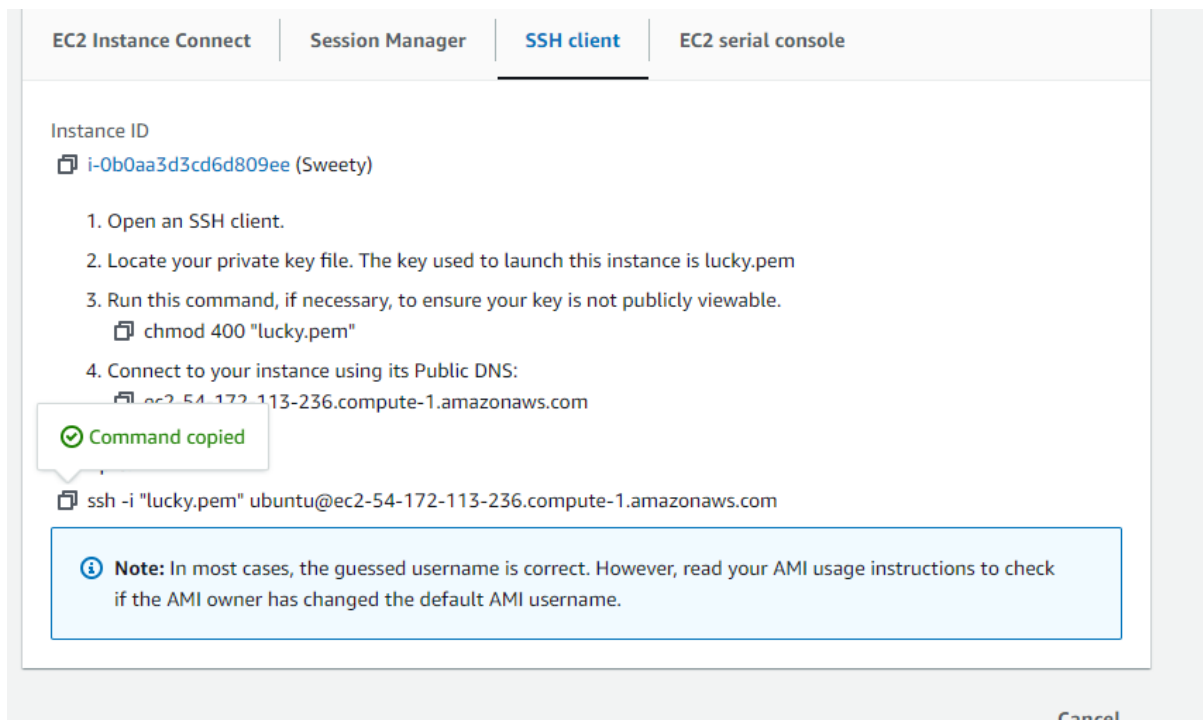
Now click on modify.



Now open the instances and click on instance ID and then click on connect.



Open SSH client and copy the command.



Paste the copied command in gitbash and connect to the server, use command `sudo -i` for connecting the server to root user.

No changes will be shown.

```
* Support: https://ubuntu.com/pro
system information as of wed Jul 3 06:24:56 UTC 2024
System load: 0.0 Processes: 105
Usage of /: 22.9% of 6.71GB Users logged in: 0
Memory usage: 20% IPv4 address for enx0: 172.31.81.18
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
see https://ubuntu.com/esm or run: sudo pro status

Last login: wed Jul 3 06:19:28 2024 from 124.123.187.60
ubuntu@ip-172-31-81-184:~$ sudo -i
root@ip-172-31-81-184:~# df -h
filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.6G  5.2G  23% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-81-184:~#
```

We need to reboot the instance the instance first then the changes will reflect .



Instances (1/1) [Info](#) Refresh Connect Instance state ▲ Actions ▼ Launch instances ▼

Find Instance by attribute or tag (case-sensitive)

Instance state: running Clear filters

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Alarm status	Availability Zone
<input checked="" type="checkbox"/>	Sweety	i-0b0aa3d3cd6d809ee	Running	t2.micro	OK	us-east-1c

Stop instance  
Start instance  
**Reboot instance**  
Hibernate instance  
Terminate instance

**Reboot instance?**

Instance IDs

i-0b0aa3d3cd6d809ee (Sweety)

To confirm that you want to reboot the instance, choose the *Reboot* button below.

Cancel Reboot

✓ Successfully initiated rebooting of i-0b0aa3d3cd6d809ee Close

Instances (1/3) [Info](#) Refresh Connect Instance state ▼ Actions ▼ Launch instances ▼

Find Instance by attribute or tag (case-sensitive) All states ▼ < 1 > Settings

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input checked="" type="checkbox"/>	Sweety	i-0b0aa3d3cd6d809ee	Running	t2.micro	2/2 checks passed	OK	us-east-1c

Go to instance ID > connect

[EC2](#) > [Instances](#) > i-0b0aa3d3cd6d809ee

**Instance summary for i-0b0aa3d3cd6d809ee (Sweety)** [Info](#) Refresh Connect Instance state ▼ Actions ▼

Updated less than a minute ago

<b>Instance ID</b> i-0b0aa3d3cd6d809ee (Sweety)	<b>Public IPv4 address</b> 54.172.113.236   <a href="#">open address</a>	<b>Private IPv4 addresses</b> 172.31.81.184
<b>IPv6 address</b> -	<b>Instance state</b> Running	<b>Public IPv4 DNS</b> ec2-54-172-113-236.compute-1.amazonaws.com <a href="#">open address</a>

SSH client > copy the command.

EC2 Instance Connect

Session Manager

SSH client

EC2 serial console

Instance ID  
i-0b0aa3d3cd6d809ee (Sweety)

1. Open an SSH client.

2. Locate your private key file. The key used to launch this instance is lucky.pem

3. Run this command, if necessary, to ensure your key is not publicly viewable.  
chmod 400 "lucky.pem"

4. Connect to your instance using its Public DNS:  
ec2-54-172-113-236.compute-1.amazonaws.com

Example:  
ssh -i "lucky.pem" ubuntu@ec2-54-172-113-236.compute-1.amazonaws.com

ⓘ

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

Paste in gitbash > connect to the server > connect to root user by the command sudo -i

```
Taksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/Desktop
$ ssh -i "lucky.pem" ubuntu@ec2-54-172-113-236.compute-1.amazonaws.com
```

Check the disk usage now with the help of command df -h

We will observe the changes now.

```
Last login: Wed Jul  3 06:26:52 2024 from 124.123.187.60
ubuntu@ip-172-31-81-184:~$ sudo -i
root@ip-172-31-81-184:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        19G   1.6G   17G   9% /
tmpfs            479M    0   479M   0% /dev/shm
tmpfs            192M  872K   191M   1% /run
tmpfs            5.0M    0    5.0M   0% /run/lock
/dev/xvda16      881M   76M   744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-81-184:~#
```

Terminate the instances and do the same process for another instance as shown below.

Instances (1) [Info](#)

Find Instance by attribute or tag (case-sensitive)

All states ▾

Refresh

Connect

Instance state ▾

Actions ▾

Launch instances ▾

< 1 >

⚙

<input type="checkbox"/>	Name <a href="#">↗</a>	Instance ID	Instance state ▾	Instance type ▾	Status check	Alarm status	Availability Zone ▾	Public IPv4 D
<input type="checkbox"/>	Sweety	i-0b0aa3d3cd6d809ee	<div><div>Running</div><div>🔍 🔍</div></div>	t2.micro	<div><div>2/2 checks passed</div><div>View alarms +</div></div>		us-east-1c	ec2-54-172-1'

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

## Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

### Name and tags [Info](#)


Name


[Add additional tags](#)


### ▼ Application and OS Images (Amazon Machine Image) [Info](#)


[Recents](#)


[Quick Start](#)

















[Browse more AMIs](#)

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

Free tier eligible ▼

ami-04a81a99f5ec58529 (64-bit (x86)) / ami-0c14ff330901e49ff (64-bit (Arm))

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

### ▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

Select

[Refresh](#) [Create new key pair](#)

## Create key pair



### Key pair name

Key pairs allow you to connect to your instance securely.

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

### Key pair type



**RSA**

RSA encrypted private and public key pair



**ED25519**

ED25519 encrypted private and public key pair

### Private key file format



**.pem**

For use with OpenSSH



**.ppk**

For use with PuTTY



When prompted, store the private key in a secure and accessible location on

Cancel

Create key pair

Advanced details [Info](#)

Cancel

Launch instance

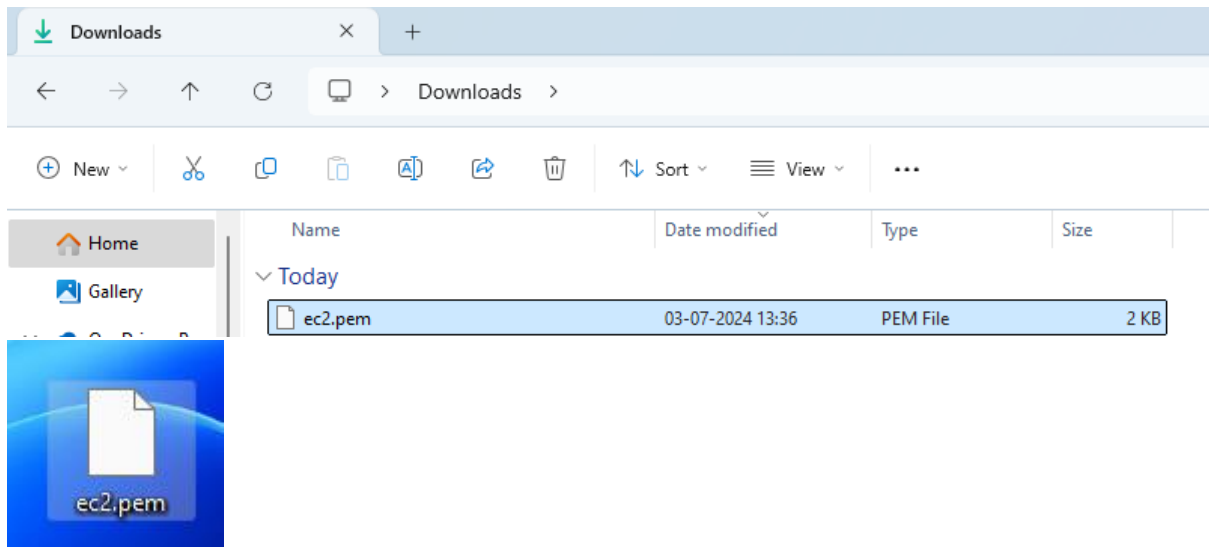
[Review commands](#)

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



**Success**

Successfully initiated launch of instance (i-00abb60fbc100431c)



Instances (1/2) [Info](#)

Find Instance by attribute or tag (case-sensitive)

All states ▾

<div><div></div></div>	Name <div></div>	Instance ID	Instance state <div></div>	Instance type <div></div>	Status check
<div><div></div></div>	Sweety	i-0b0aa3d3cd6d809ee	<div><div></div>Running <div></div> <div></div> <div></div></div>	t2.micro	<div><div></div> 2/2 checks passed</div>
<div><div></div></div>	Sweety1	i-00abb60fbc100431c	<div><div></div>Running <div></div> <div></div> <div></div></div>	t2.micro	<div><div></div> Initializing</div>

[EC2](#) > [Instances](#) > [i-00abb60fbc100431c](#) > [Connect to instance](#)

## Connect to instance [Info](#)

Connect to your instance i-00abb60fbc100431c (Sweety1) using any of these options

[EC2 Instance Connect](#) | [Session Manager](#) | [SSH client](#) | [EC2 serial console](#)

Instance ID

[i-00abb60fbc100431c](#) (Sweety1)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is ec2.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.  
`chmod 400 "ec2.pem"`
4. Connect to your instance using its Public DNS:  
`ec2-44-202-150-7.compute-1.amazonaws.com`

Example:

```
ssh -i "ec2.pem" ubuntu@ec2-44-202-150-7.compute-1.amazonaws.com
```

```
laksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/Desktop
$ ssh -i "ec2.pem" ubuntu@ec2-44-202-150-7.compute-1.amazonaws.com
The authenticity of host 'ec2-44-202-150-7.compute-1.amazonaws.com (44.202.150.7)' can't be established.
ED25519 key fingerprint is SHA256:ZpFYX5m9iygFqUwTeR01J6NU54B5RhiumnZR2Rk54dE.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-44-202-150-7.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
```

```
ubuntu@ip-172-31-82-53:~$ sudo -i
root@ip-172-31-82-53:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.6G  5.2G  23% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-82-53:~#
```

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Volumes (1/2) Info

Search

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created
<input checked="" type="checkbox"/>	-	vol-036c26fb4f116ac51	gp3	8 GiB	3000	125	snap-0e23f4604...	202
<input type="checkbox"/>	-	vol-081c9d928a6f72fec	gp3	20 GiB	3000	125	snap-0e23f4604...	202

Actions

Create volume

Volumes (1/2) Info

Search

	Name	Volume ID	Type	Size	IOPS	Throu
<input checked="" type="checkbox"/>	-	vol-036c26fb4f116ac51	gp3	8 GiB	3000	125
<input type="checkbox"/>	-	vol-081c9d928a6f72fec	gp3	20 GiB	3000	125

Actions

Create volume

Modify volume

Create snapshot

Create snapshot lifecycle policy

Delete volume

Attach volume

Volume details

Volume ID

vol-036c26fb4f116ac51

Volume type

Info

General Purpose SSD (gp3)

Size (GiB)

Info

8

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS

Info

3000

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s)

Info

125


Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

Cancel

Modify

Volume details

Volume ID

 vol-036c26fb4f116ac51

Volume type

[Info](#)

General Purpose SSD (gp3) ▼

Size (GiB)

[Info](#)

20

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS

[Info](#)

3000

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s)

[Info](#)

125

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

Cancel

Modify

Modify vol-036c26fb4f116ac51?

✕

If you are increasing the size of the volume, you must extend the file system to the new size of the volume. You can only do this when the volume enters the optimizing state. For more information see [Extend the file system after resizing an EBS volume.](#)

The modification might take a few minutes to complete.


You are charged for the new volume configuration after volume modification starts. For pricing information, see [Amazon EBS Pricing](#).

Are you sure that you want to modify vol-036c26fb4f116ac51?

Cancel

Modify


Instances (1/2) [Info](#)

 [Connect](#)

Instance state ▲

Actions ▼

[Launch instar](#)

	Name	Instance ID	Instance state	
<input type="checkbox"/>	Sweety	i-0b0aa3d3cd6d809ee	Terminated	
<input checked="" type="checkbox"/>	Sweety1	i-00abb60fbc100431c	Running	

Stop instance

Start instance

Reboot instance

Hibernate instance

Terminate instance

1

Alarm status

2 checks passed

View alarms

## Reboot instance?



Instance IDs

i-00abb60fbc100431c (Sweety1)

To confirm that you want to reboot the instance, choose the *Reboot* button below.

Cancel

Reboot

Successfully initiated rebooting of i-00abb60fbc100431c

Instances (1/2) [Info](#)



Connect

Instance state ▼

Actions ▼

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states ▼

< 1 >

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Av
<input type="checkbox"/>	Sweety	i-0b0aa3d3cd6d809ee	Terminated	t2.micro	2/2 checks passec	<a href="#">View alarms</a> +	us
<input checked="" type="checkbox"/>	Sweety1	i-00abb60fbc100431c	Running	t2.micro	2/2 checks passec	<a href="#">View alarms</a> +	us

[EC2](#) > [Instances](#) > i-00abb60fbc100431c

### Instance summary for i-00abb60fbc100431c (Sweety1) [Info](#)

Updated less than a minute ago



Connect

Instance state ▼

Actions ▼

Instance ID i-00abb60fbc100431c (Sweety1)	Public IPv4 address 44.202.150.7   <a href="#">open address</a>	Private IPv4 addresses 172.31.82.53
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-202-150-7.compute-1.amazonaws.com   <a href="#">open address</a>
Hostname type IP name: ip-172-31-82-53.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-82-53.ec2.internal	Elastic IP addresses
Answer private resource DNS name	Instance type	



## Connect to instance Info

Connect to your instance i-00abb60fbc100431c (Sweety1) using any of these options

EC2 Instance Connect



Session Manager

**SSH client**


EC2 serial console

Instance ID

 i-00abb60fbc100431c (Sweety1)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is ec2.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.  
 `chmod 400 "ec2.pem"`
4. Connect to your instance using its Public DNS:  
 `ec2-44-202-150-7.compute-1.amazonaws.com`

Example:

 `ssh -i "ec2.pem" ubuntu@ec2-44-202-150-7.compute-1.amazonaws.com`

```
Taksh@LAPTOP-8ME8B29S MINGW64 ~/OneDrive/Desktop
$ ssh -i "ec2.pem" ubuntu@ec2-44-202-150-7.compute-1.amazonaws.com
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1009-aws x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/pro

System information as of Wed Jul  3 08:12:44 UTC 2024

System load:  0.17           Processes:            106
Usage of /:   22.7% of 6.71GB Users logged in:      0
Memory usage: 19%           IPv4 address for enx0: 172.31.82.53
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Wed Jul  3 08:12:47 2024 from 205.254.168.165
ubuntu@ip-172-31-82-53:~$ sudo -i
root@ip-172-31-82-53:~#
```

```
Last login: Wed Jul 3 08:12:47 2024 from 205.254.168.165
ubuntu@ip-172-31-82-53:~$ sudo -i
root@ip-172-31-82-53:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        19G   1.6G   17G   9% /
tmpfs            479M    0   479M   0% /dev/shm
tmpfs            192M  860K   191M   1% /run
tmpfs            5.0M    0   5.0M   0% /run/lock
/dev/xvda16      881M   76M   744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-82-53:~#
```