


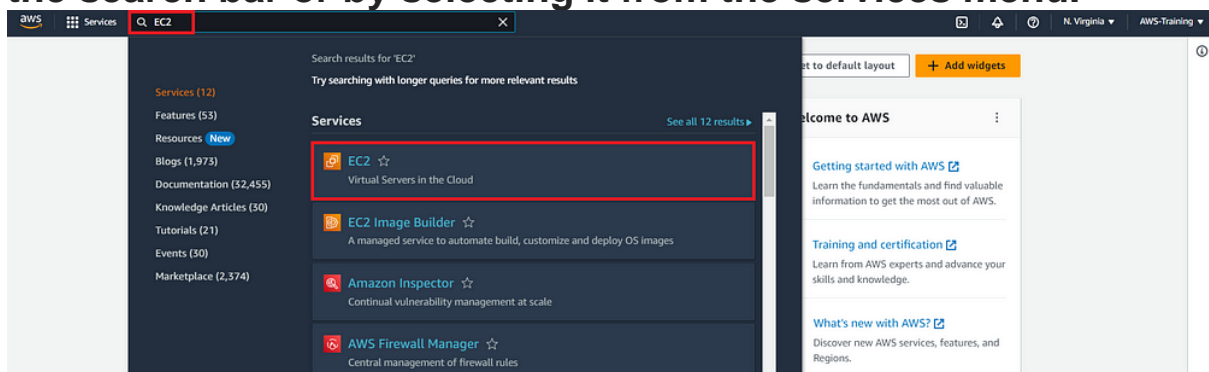
EC2

	Type	Description	Mnemonic
General Purpose	a1	Good for scale-out workloads, supported by Arm	a is for Arm processor – or as light as A1 steak sauce
	t-family: t3, t3a, t2	Burstable, good for changing workloads	t is for tiny or turbo
	m-family: m6g, m5, m5a, m5n, m4	Balanced, good for consistent workloads	m is for main or happy medium
Compute Optimized	c-family: c5, c5n, c4	High ratio of compute to memory	c is for compute
Memory Optimized	r-family: r5, r5a, r5n, r4	Good for in-memory databases	r is for RAM
	x1-family: x1e, x1	Good for full in-memory applications	x is for xtreme
	High memory	Good for large in-memory databases	High memory is for... high memory.
	z1d	Both high compute and high memory	z is for zippy
Accelerated Computing	p-family: p3, p2	Good for graphics processing and other GPU uses	p is for pictures
	Inf1	Support machine learning inference applications	Inf is for inference
	g-family: g4, g3	Accelerate machine learning inference and graphics-intensive workloads	g is for graphics
	f1	Customizable hardware acceleration with field programmable gate arrays (FPGAs)	f is for FPGA or feel as in hardware
Storage Optimized	i-family: i3, i3en	SDD-backed, balance of compute and memory	i is for IOPS
	d2	Highest disk ratio	d is for dense
	h1	HDD-backed, balance of compute and memory	H is for HDD

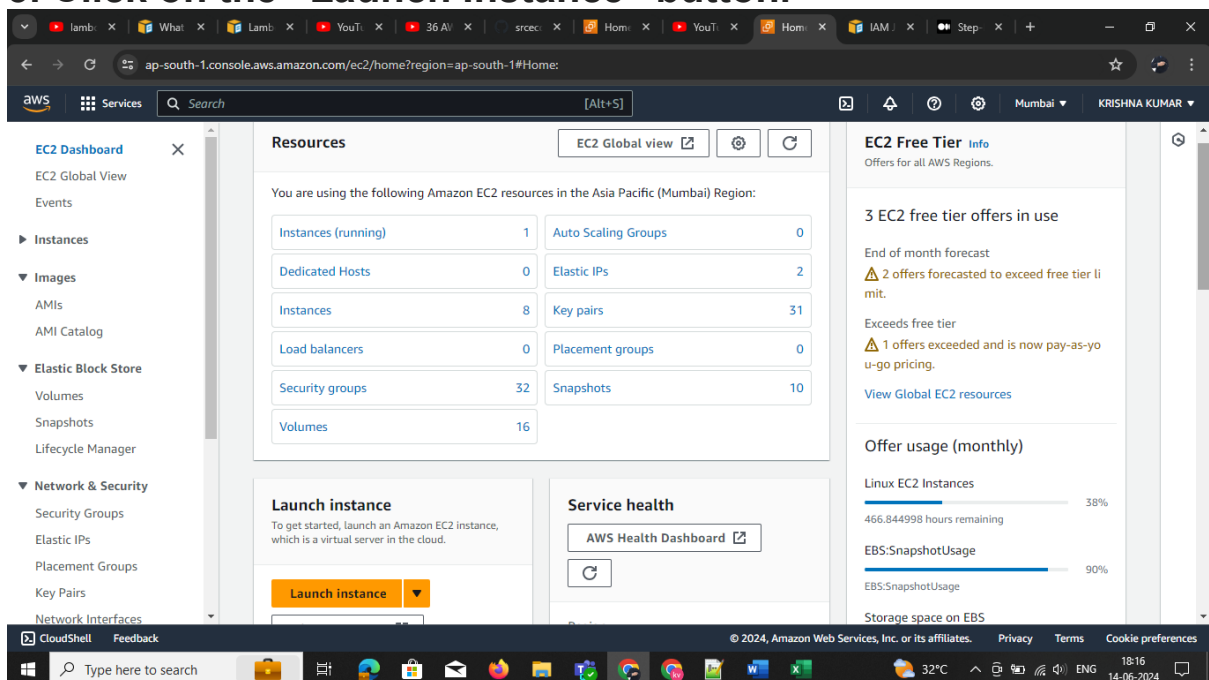
Here is a step-by-step guide to launching an EC2 instance via the AWS Management Console:

1. Log in to the AWS Management Console.

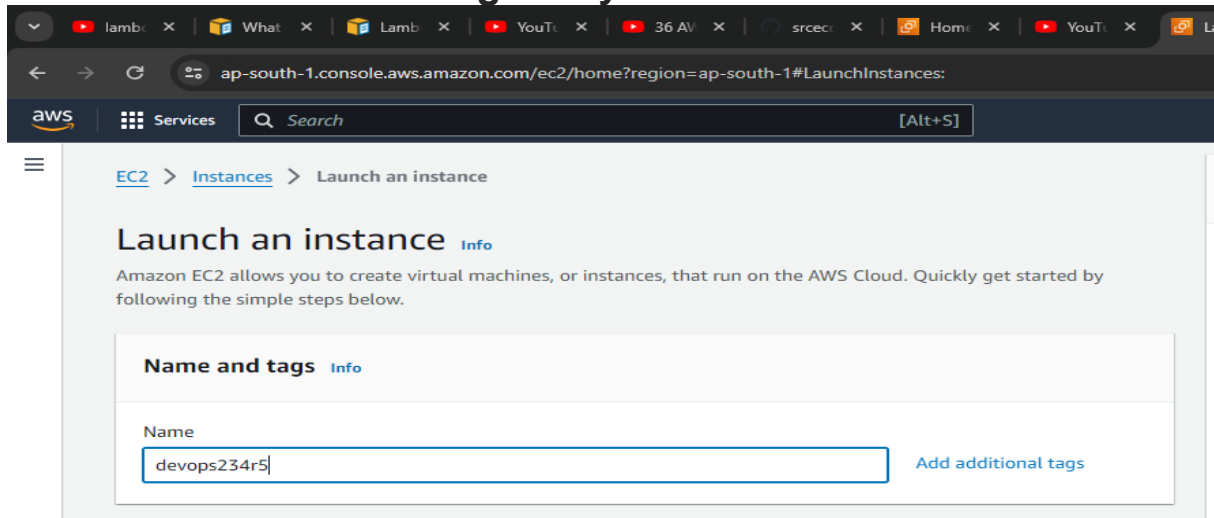
2. Navigate to the EC2 service either by searching for “EC2” in the search bar or by selecting it from the services menu.



3. Click on the “Launch Instance” button.



4. Provide a name and tags for your EC2 instance.



ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#LaunchInstances:

aws Services Search [Alt+S]

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](#)

5. Choose an Amazon Machine Image (AMI), which is the operating system and software that will run on your instance.




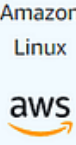
It is recommended to choose the default option that is free-tier eligible.

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

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

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

Quick Start




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

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-0715c1897453cabd1 (64-bit (x86)) / ami-041c36ce1b70dfc41 (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible ▼

Description

Amazon Linux 2023 AMI 2023.0.20230517.1 x86_64 HVM kernel-6.1

Architecture

64-bit (x86) ▼

AMI ID

ami-0715c1897453cabd1

Verified provider

6. Select an instance type, determining the hardware configuration based on your resource requirements.

It is recommended to keep the default settings, which are free-tier eligible.

▼ Instance type [Info](#)

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows pricing: 0.0162 USD per Hour
On-Demand SUSE pricing: 0.0116 USD per Hour
On-Demand RHEL pricing: 0.0716 USD per Hour
On-Demand Linux pricing: 0.0116 USD per Hour

Free tier eligible ▼

☒ All generations

[Compare instance types](#)

7. Configure key pairs. Create your first key pair by giving it a name and selecting the key pair type and private key file format.


Make sure to download and securely store your 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.

MyFirst_keyPair

The name can include upto 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 computer. You will need it later to connect to your instance. [Learn more](#)

Cancel

Create key pair

NOTE: If you already have a key pair, you can use an existing one to connect to your instance.

8. Configure the network settings. Create a security group and allow SSH traffic and HTTP traffic from the internet.

Security groups define inbound and outbound rules for network access to your instance.

▼ Network settings Info

Edit

Network Info

vpc-046f9f1ee7e1ff1a5

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

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-5' 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 security group rules to allow access from known IP addresses only. X

9. Configure storage. Specify the size and type of storage (EBS volumes) you need for your instance.

It is recommended to use the default settings, which are free-tier eligible.

▼ **Configure storage** [Info](#)

Advanced

1x GiB ▼ Root volume (Not encrypted)

ⓘ Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

×

Add new volume

0 x File systems [Edit](#)

NOTE: You can get up to 30 GB of free storage in the free tier.

10. Scroll down and click on “Advanced Details.”

▶ **Advanced details** [Info](#)

11. Specify the number of instances you want to launch in the summary section.

▼ **Summary**

Number of instances [Info](#)

1

[Software image \(AMI\)](#)
Amazon Linux 2023 AMI 2023.0.2...[read more](#)
ami-0715c1897453cabd1

[Virtual server type \(instance type\)](#)
t2.micro

[Firewall \(security group\)](#)
New security group

[Storage \(volumes\)](#)
1 volume(s) - 8 GiB

Cancel **Launch instance** [Review commands](#)

12. Click on the “Launch Instance” button.

▼ Summary

Number of instances [Info](#)

1

Software image (AMI)

Amazon Linux 2023 AMI 2023.0.2...[read more](#)
ami-0715c1897453cabd1

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

[Review commands](#)

13. Once the instance is launched, you'll see a success message. Scroll down and click on the "View all Instances" button.

EC2 > Instances > Launch an instance

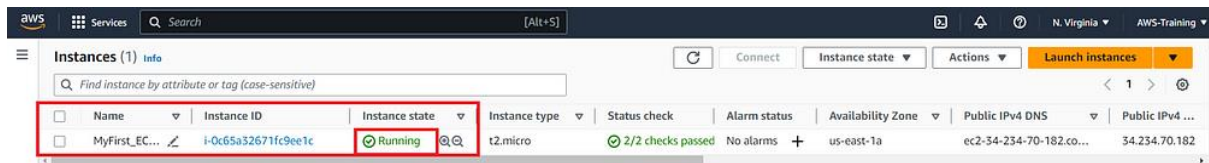
✓ Success

Successfully initiated launch of instance i-0c65a32671fc9ee1c

► Launch log

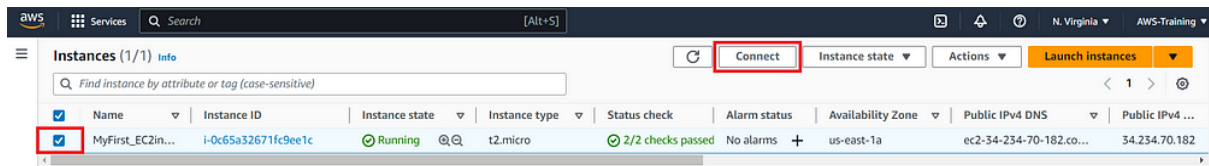
View all instances

14. In the instances list, locate your newly launched instance and wait for it to reach the “running” state with passing status checks.

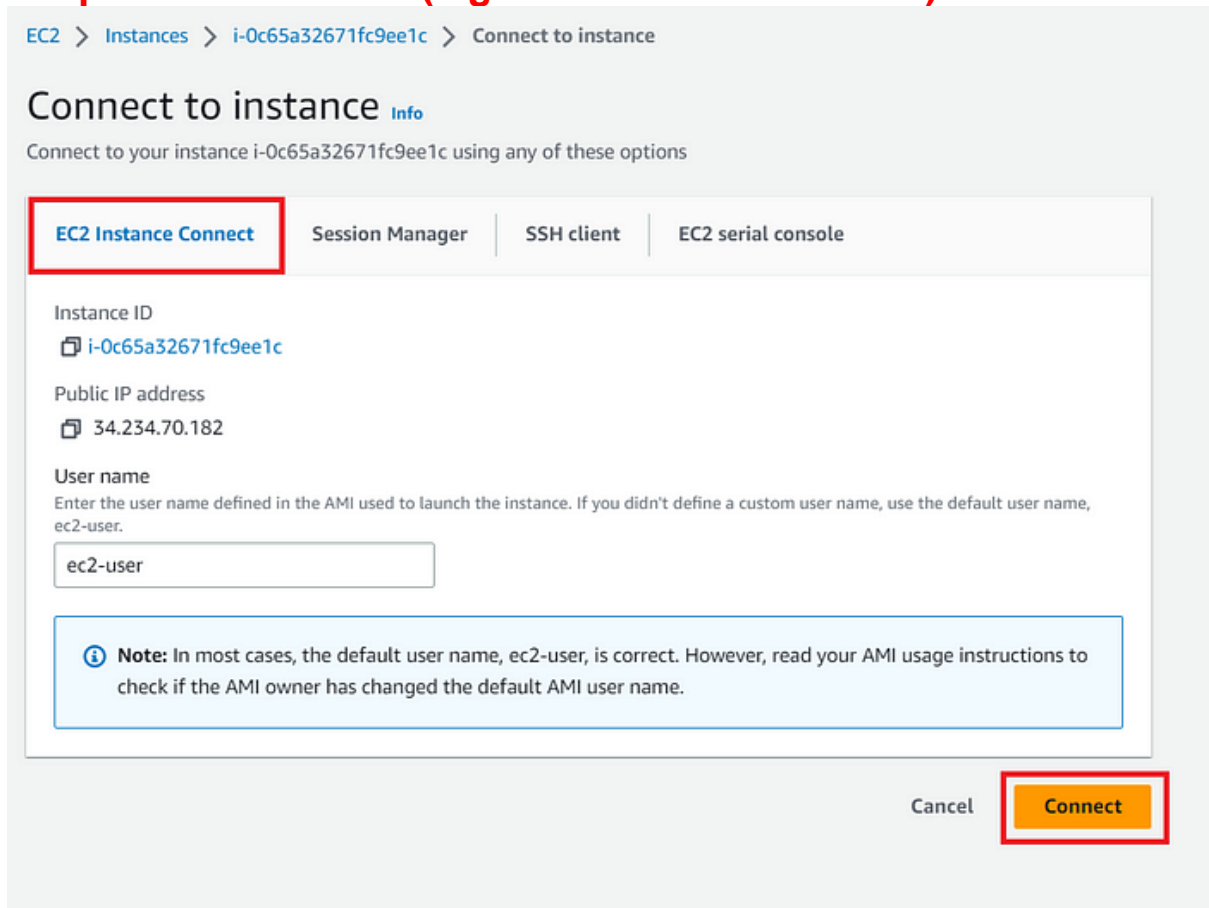


Note: 15 to 18 is Not for Best Practices

15 To connect to your instance, select it from the list and click on “Connect.”



16 Follow the instructions to connect to your instance using the preferred method (e.g.EC2 Instance Connect).



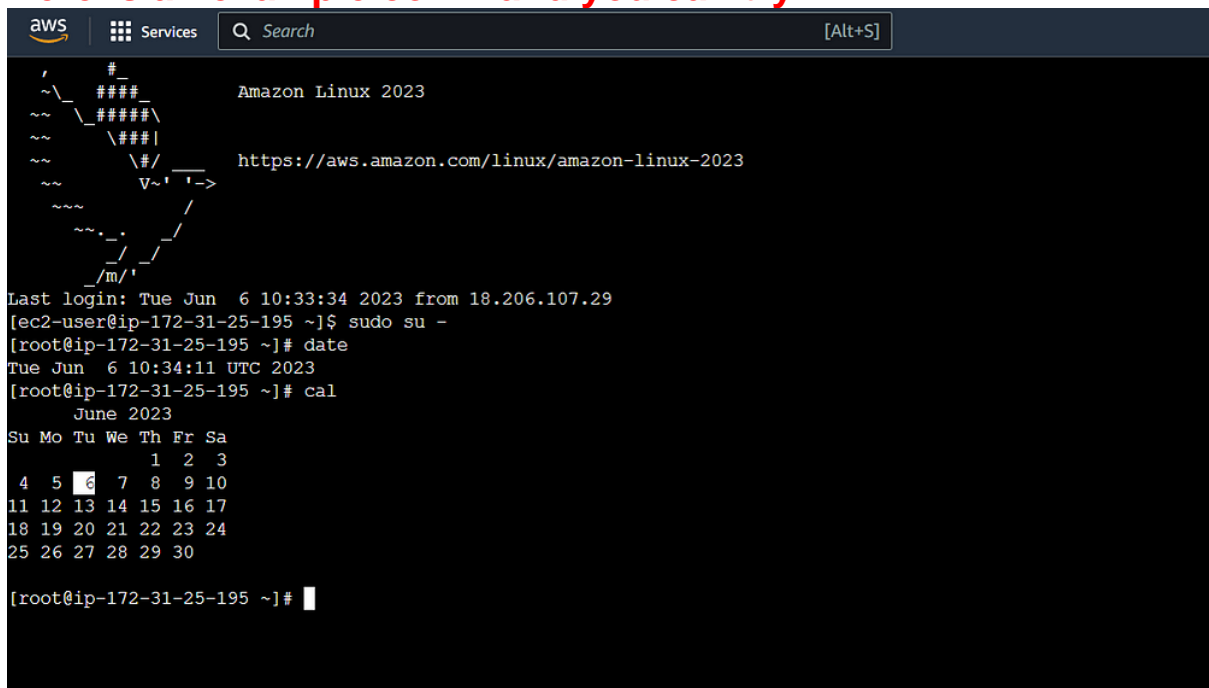
17. Once connected, you can start using your EC2 instance as needed.



```
aws Services Search [Alt+S] N. Virginia AWS-Training
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-172-31-25-195 ~]$
```

18. Now that you have connected to your EC2 instance through your operating system, you can execute any Linux command to verify that it is working properly.

Here is an example command you can try:



```
aws Services Search [Alt+S]
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
Last login: Tue Jun 6 10:33:34 2023 from 18.206.107.29
[ec2-user@ip-172-31-25-195 ~]$ sudo su -
[root@ip-172-31-25-195 ~]# date
Tue Jun 6 10:34:11 UTC 2023
[root@ip-172-31-25-195 ~]# cal
      June 2023
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

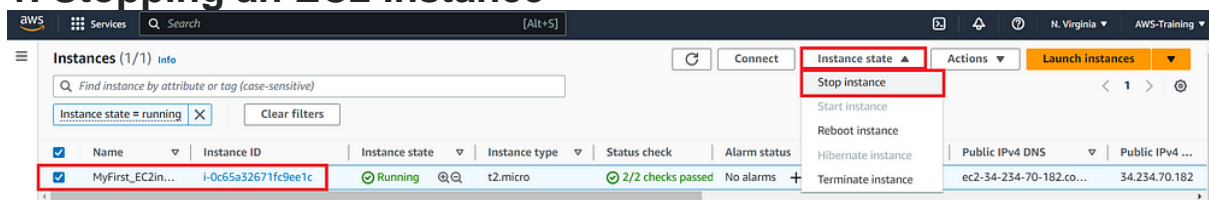
[root@ip-172-31-25-195 ~]#
```

Instance Management

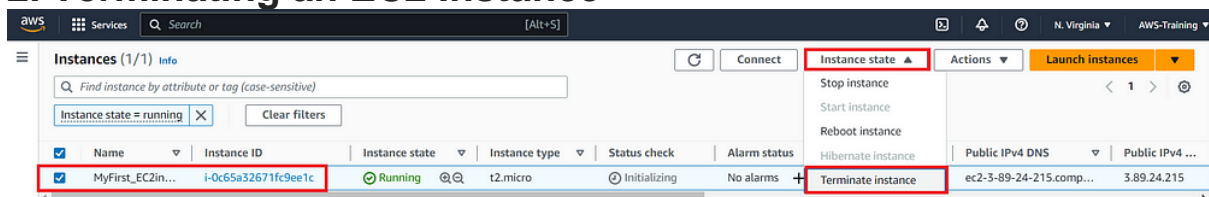
You have the ability to **change the state of an EC2 instance** in AWS, such as **stopping or terminating** it. However, if your workload is currently running on the EC2 instance, it is crucial to avoid termination without creating a backup of your data. Terminating the instance effectively deletes the created instance.

Below are the example of stopping and terminating the desired instance.

1. Stopping an EC2 Instance

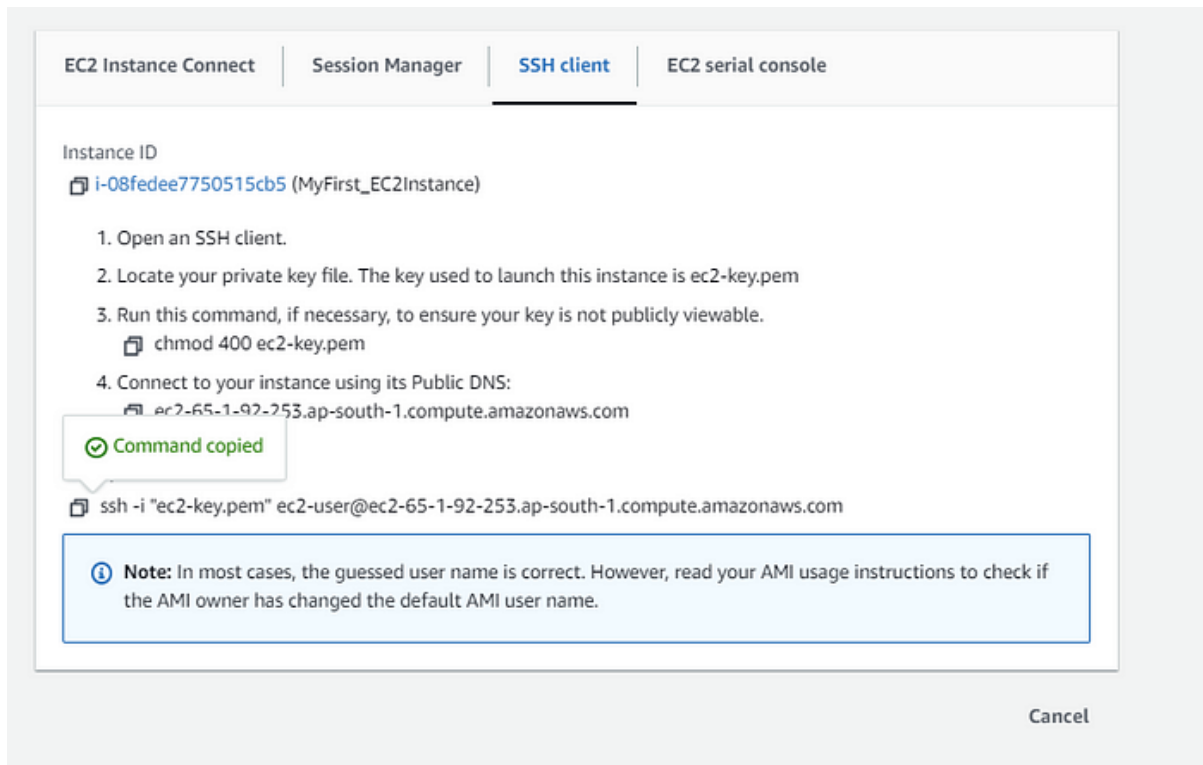


2. Terminating an EC2 Instance

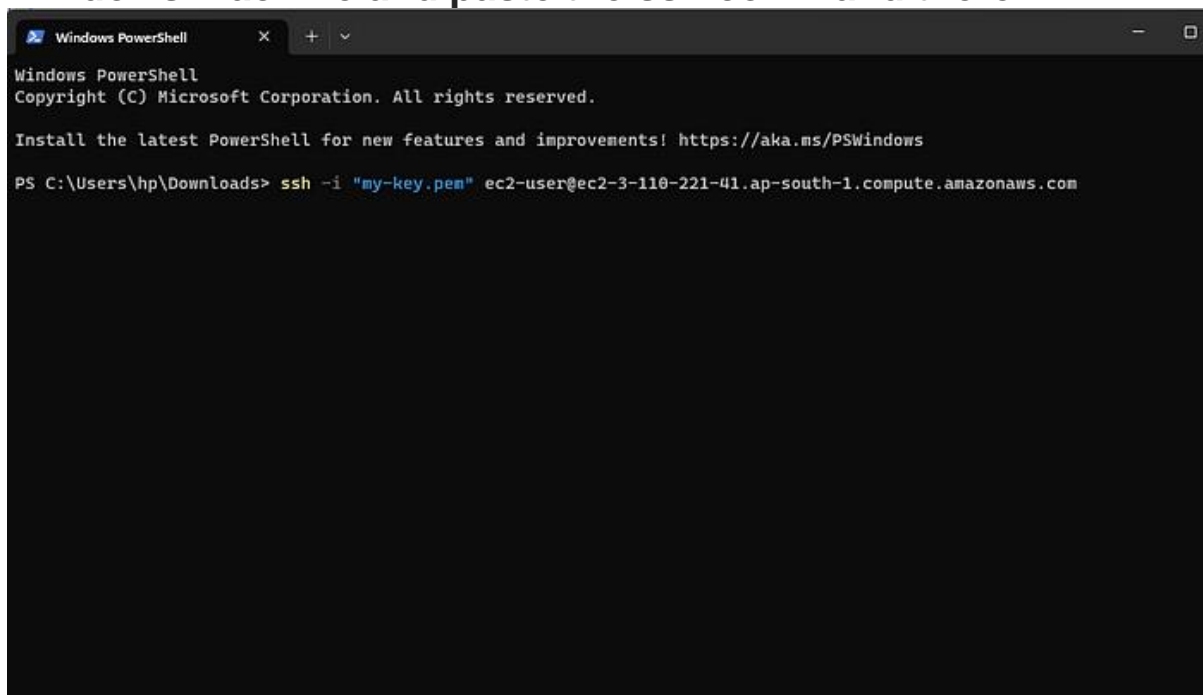


EC2 Instance using ssh on Windows Linux

1. Go to SSH client section and copy the command, as shown below we have
2. putty ,
3. gitBash, mo



2. Open the Command Prompt or Windows Powershell on your Windows machine and paste the ssh command there.



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\hp\Downloads> ssh -i "my-key.pem" ec2-user@ec2-3-110-221-41.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-3-110-221-41.ap-south-1.compute.amazonaws.com (3.110.221.41)' can't be established.
ED25519 key fingerprint is SHA256:jHYFkGfxU6f9Kf1qtgY8zLmmJAwoNA4a0hcE+Un34Ak.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

3. You should now be connected to the EC2 instance using open SSH on your Windows machine, let's do some commands!

```
ec2-user@ip-172-31-15-251:~
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\hp\Downloads> ssh -i "my-key.pem" ec2-user@ec2-3-110-221-41.ap-south-1.compute.amazonaws.com
The authenticity of host 'ec2-3-110-221-41.ap-south-1.compute.amazonaws.com (3.110.221.41)' can't be established.
ED25519 key fingerprint is SHA256:jHYFkGfxU6f9Kf1qtgY8zLmmJAwoNA4a0hcE+Un34Ak.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-110-221-41.ap-south-1.compute.amazonaws.com' (ED25519) to the list of known hosts
Register this system with Red Hat Insights: insights-client --register
Create an account or view all your systems at https://red.ht/insights-dashboard
[ec2-user@ip-172-31-15-251 ~]$
[ec2-user@ip-172-31-15-251 ~]$
[ec2-user@ip-172-31-15-251 ~]$ ls
[ec2-user@ip-172-31-15-251 ~]$ mkdir demo
[ec2-user@ip-172-31-15-251 ~]$ ls
demo
[ec2-user@ip-172-31-15-251 ~]$
```