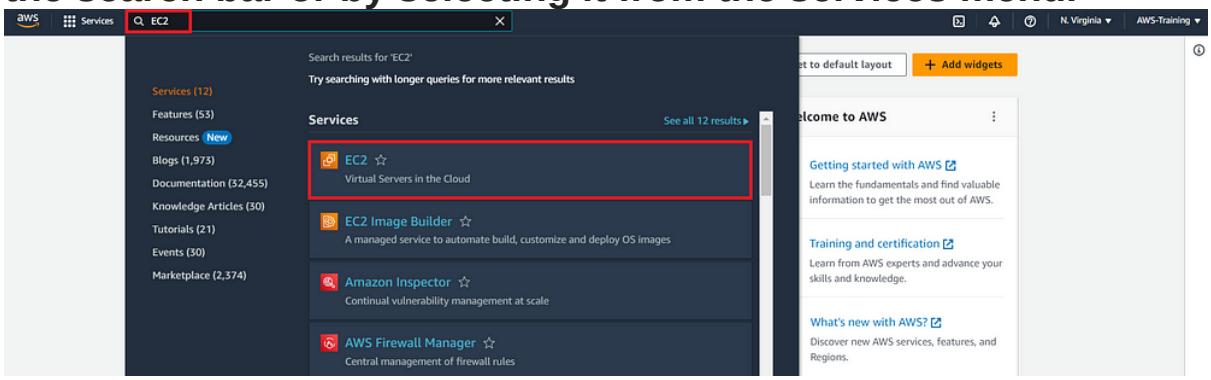
EC2

	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**

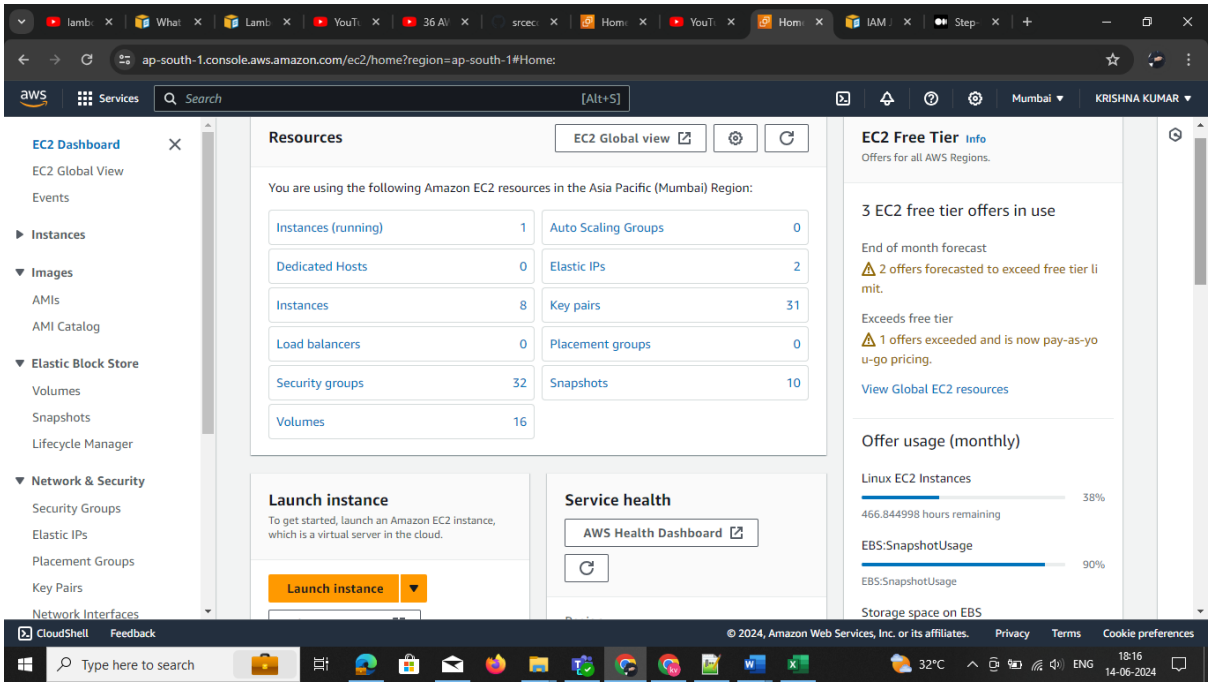
Here is a step-by-step guide to launching an EC2 instance via the AWS Management Console:

1. Log in to the AWS Management Console.

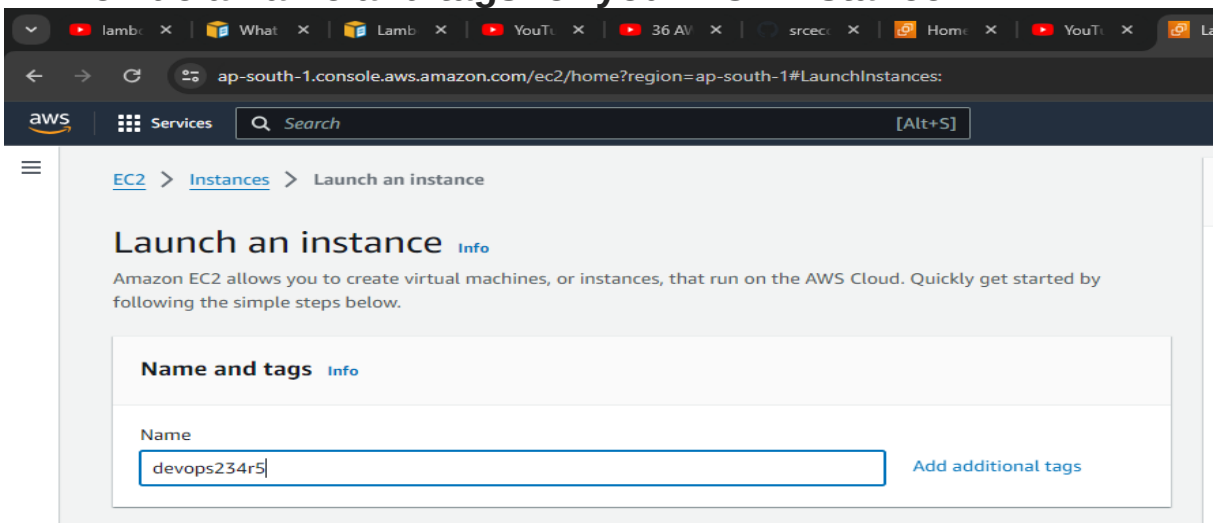
2. Navigate to the EC2 service either by searching for “EC2” in the search bar or by selecting it from the services menu.



3. Click on the “Launch Instance” button.

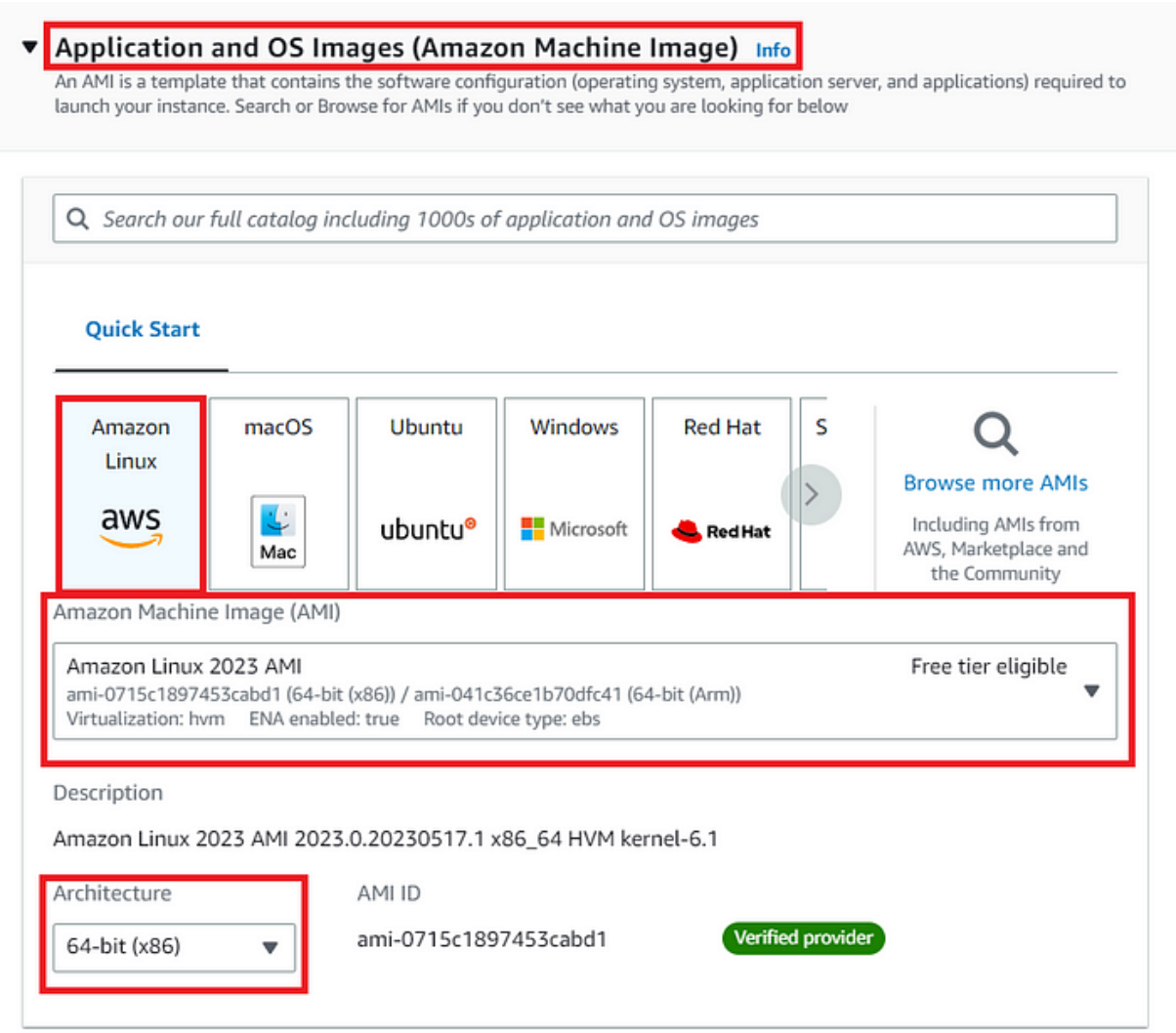


4. Provide a name and tags for your EC2 instance.



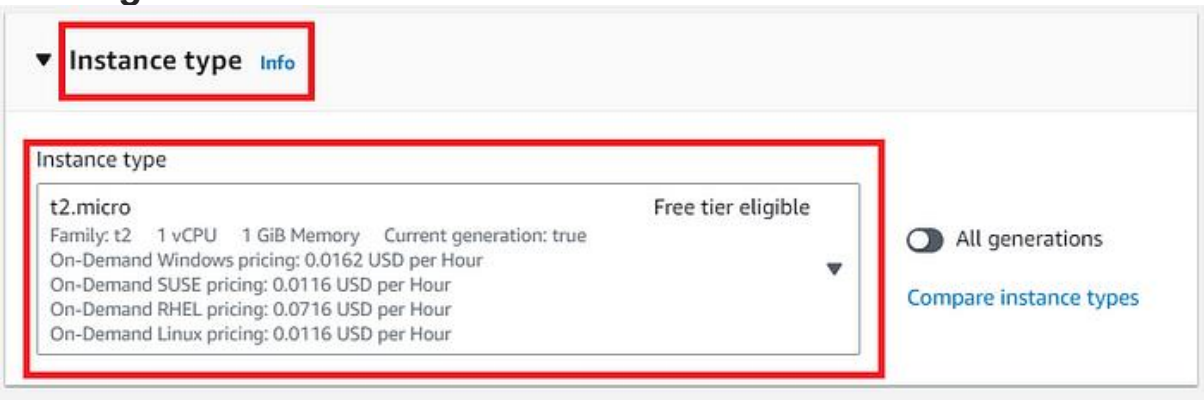
5. Choose an Amazon Machine Image (AMI), which is the operating system and software that will run on your instance.

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



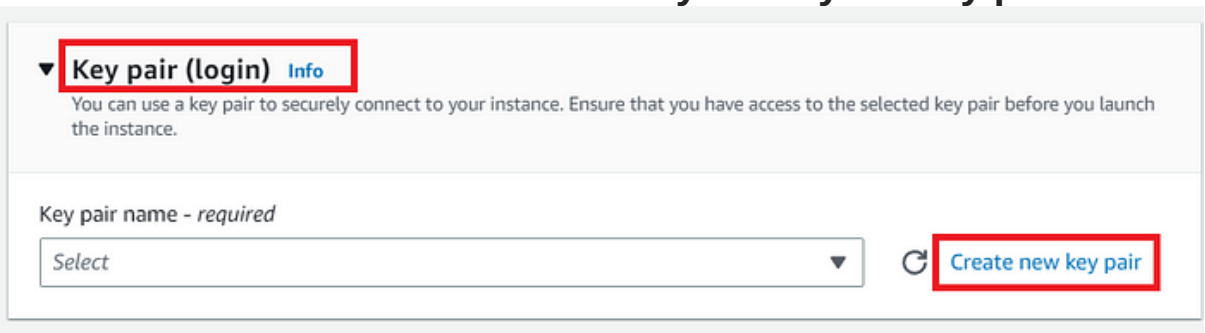
6. Select an instance type, determining the hardware configuration based on your resource requirements.

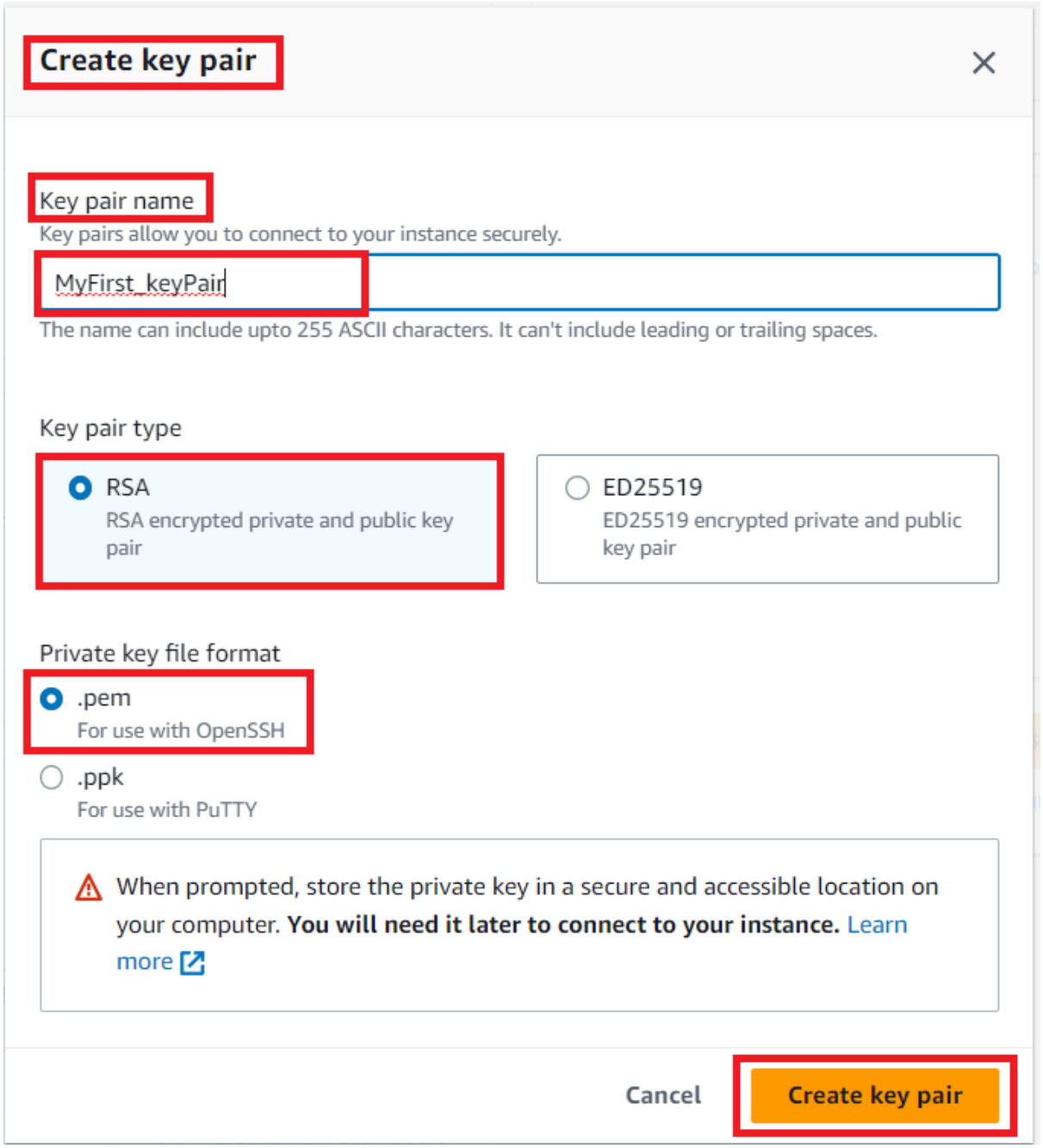
It is recommended to keep the default settings, which are free-tier eligible.



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.

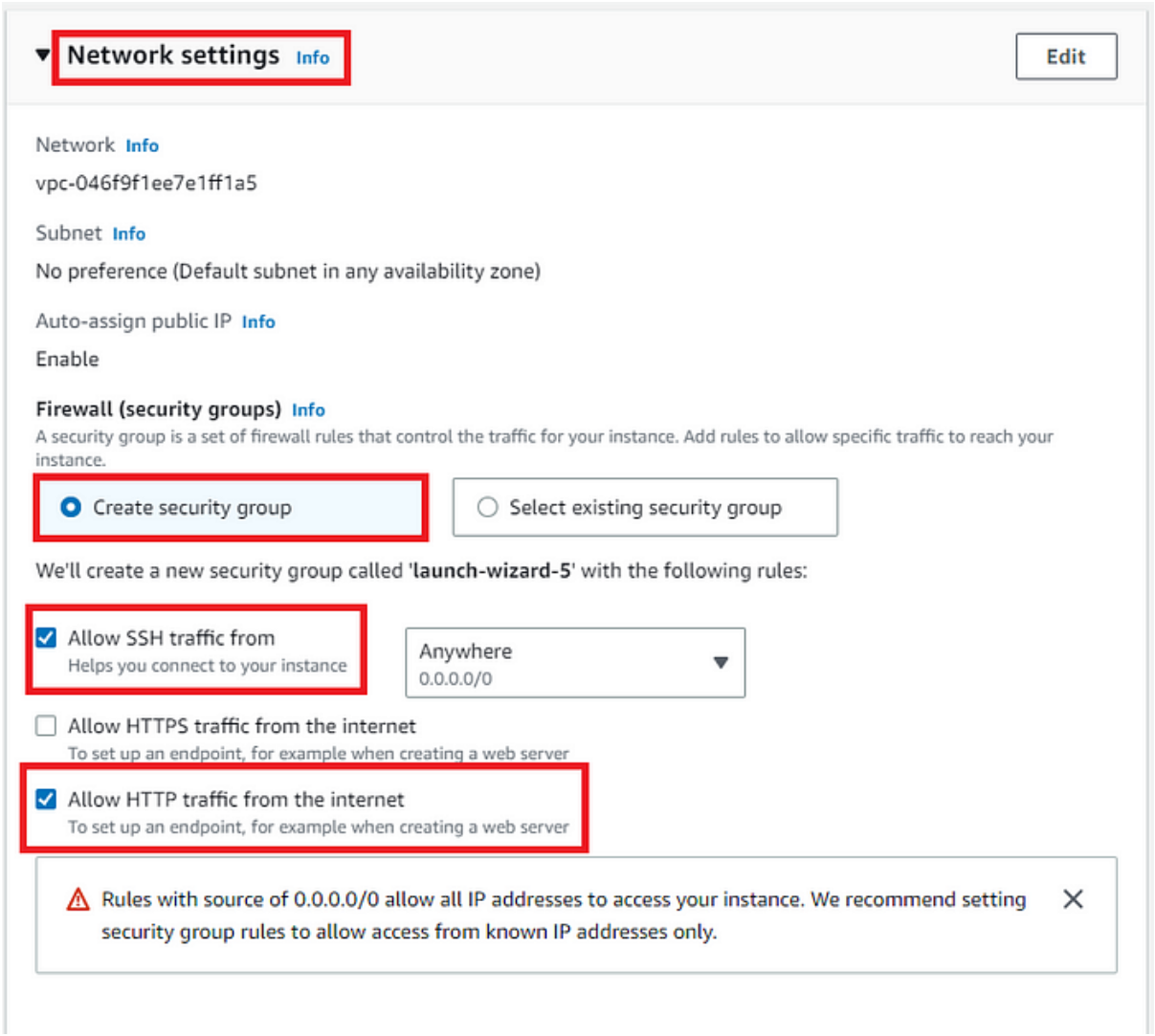




NOTE: If you already have a key pair, you can use an existing one to connect to your instance.

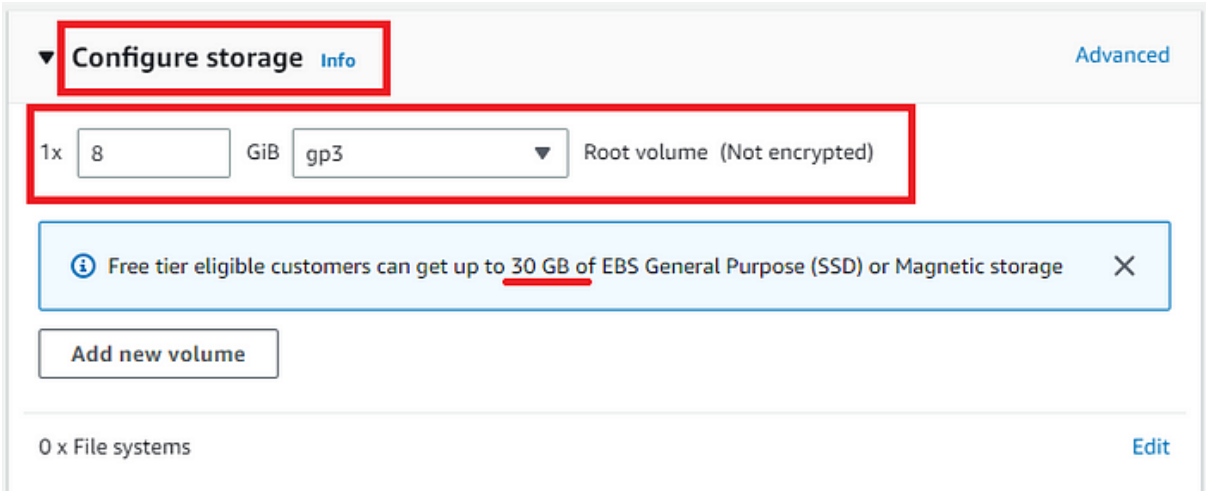
8. Configure the network settings. Create a security group and allow SSH traffic and HTTP traffic from the internet.

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



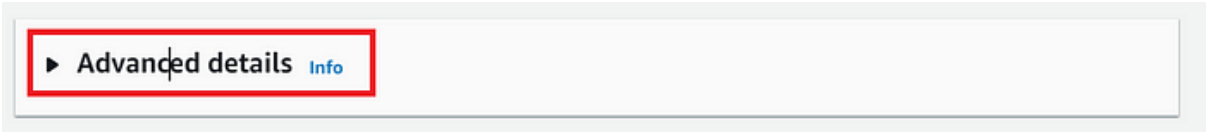
9. Configure storage. Specify the size and type of storage (EBS volumes) you need for your instance.

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

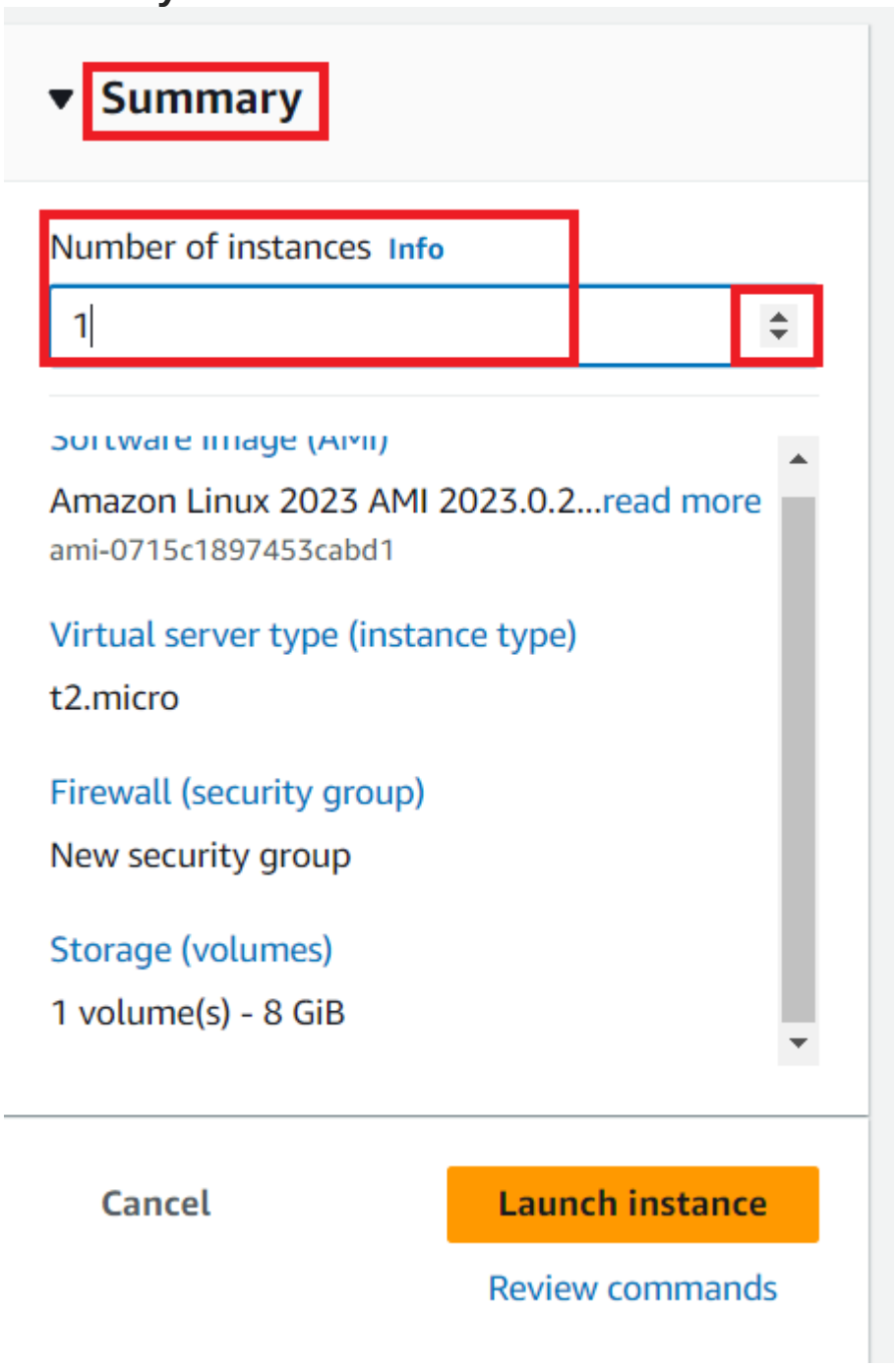


NOTE: You can get up to 30 GB of free storage in the free tier.

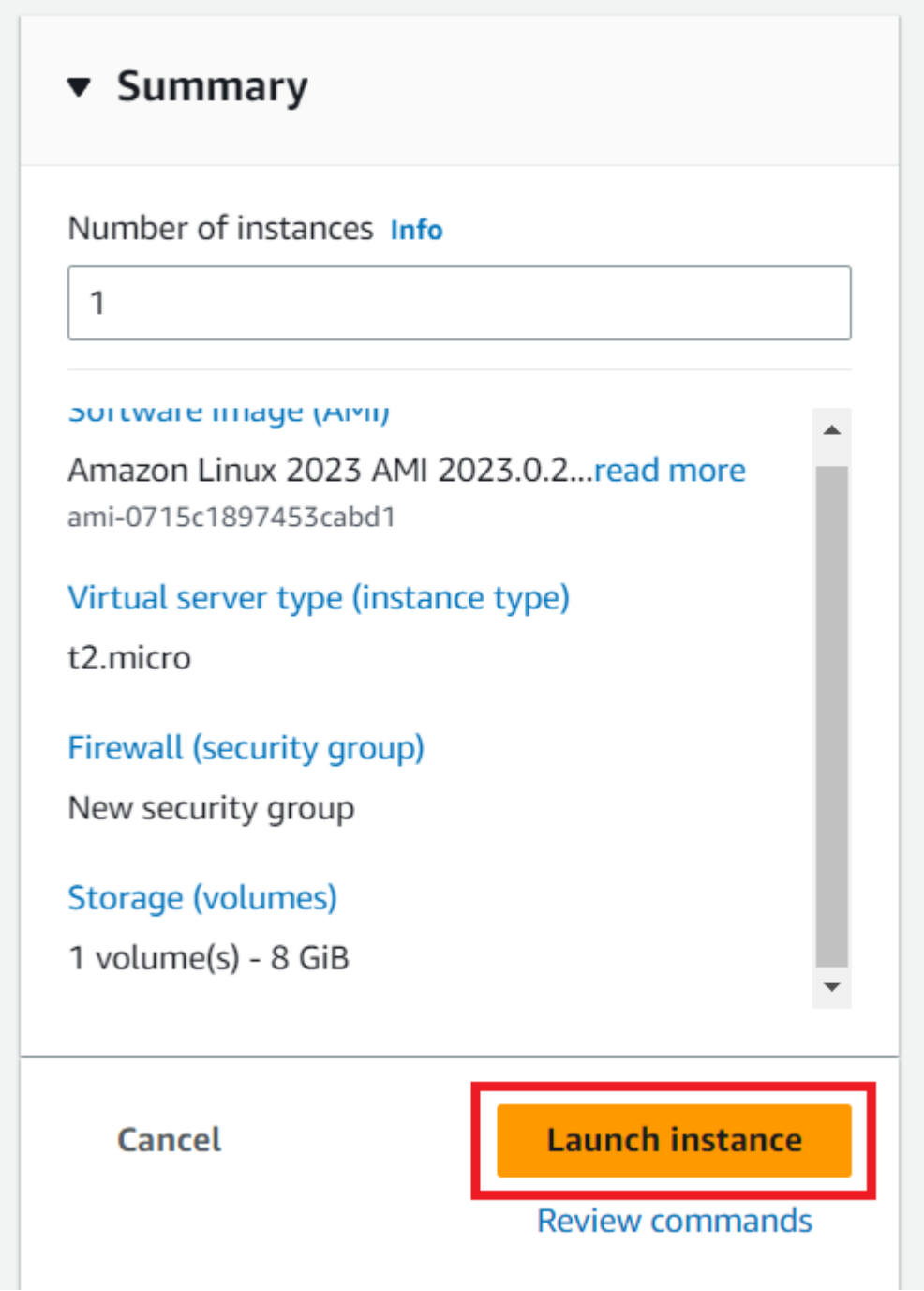
10. Scroll down and click on “Advanced Details.”



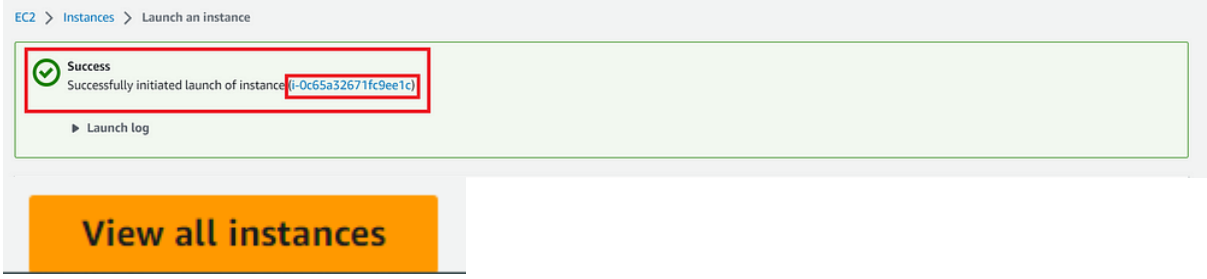
11. Specify the number of instances you want to launch in the summary section.



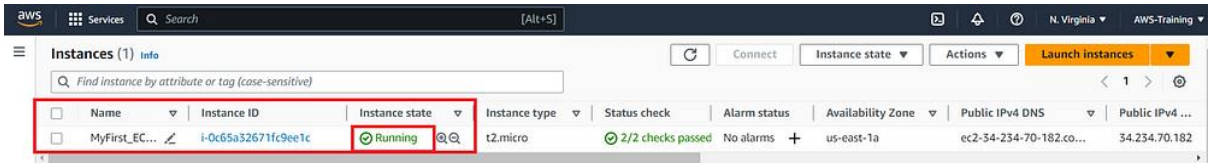
12. Click on the “Launch Instance” button.



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

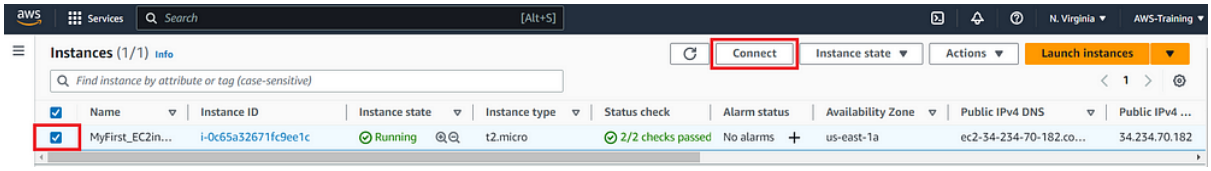


14. In the instances list, locate your newly launched instance and wait for it to reach the “running” state with passing status checks.

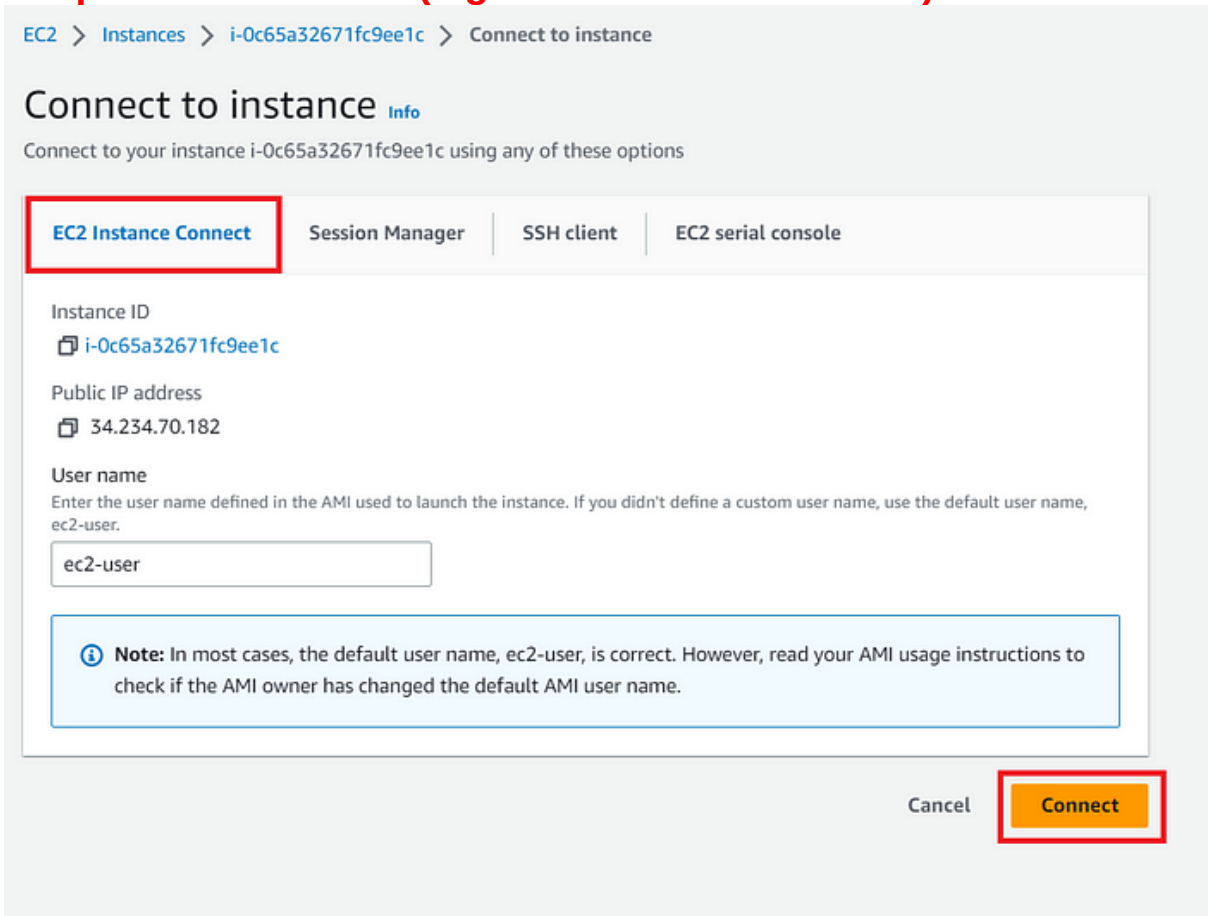


Note: 15 to 18 is Not for Best Practices

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



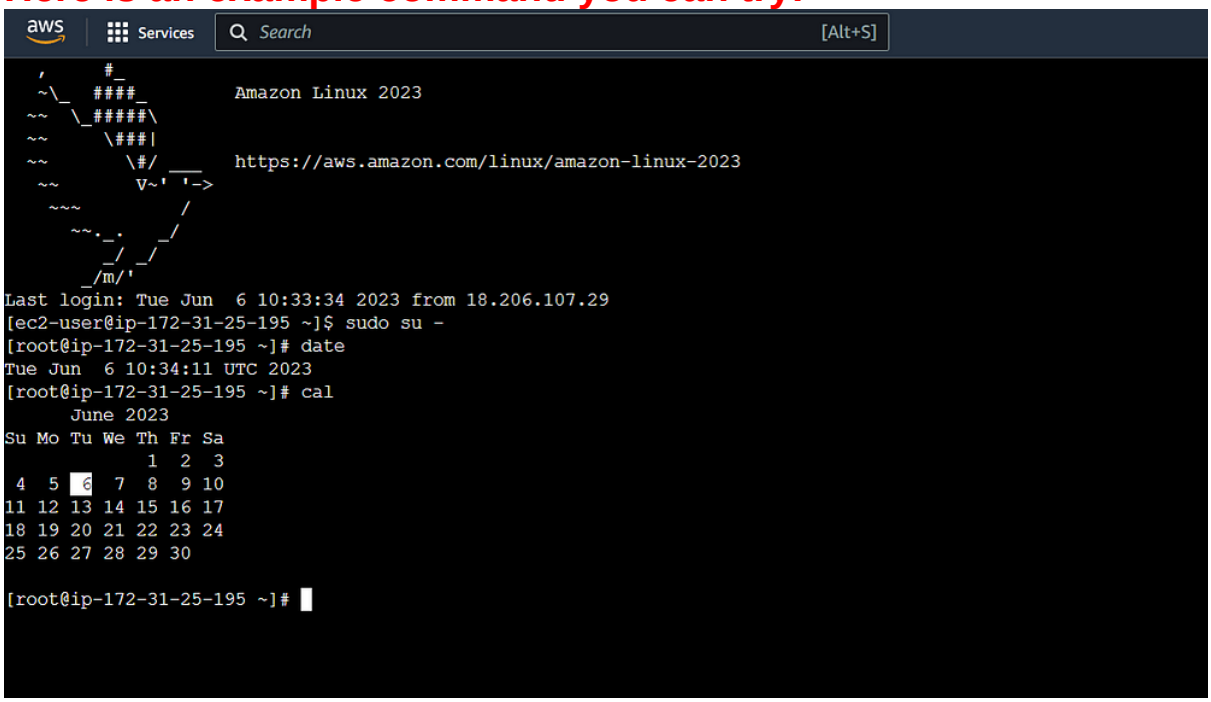
16 Follow the instructions to connect to your instance using the preferred method (e.g.EC2 Instance Connect).



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

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:

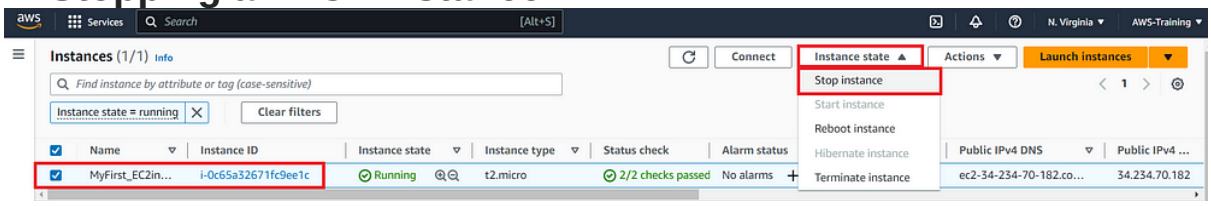


Instance Management

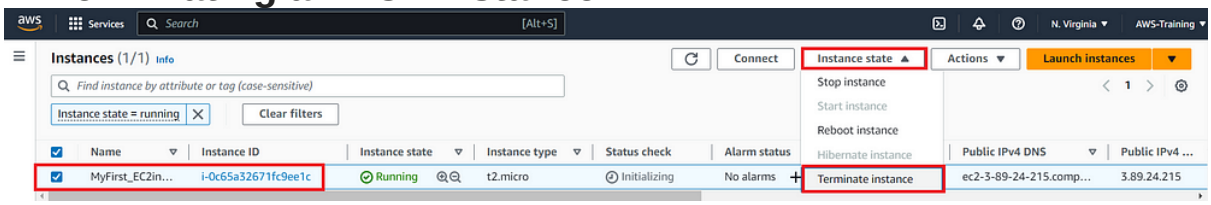
*You have the ability to **change the state of an EC2 instance** in AWS, such as **stopping or terminating** it. However, if your workload is currently running on the EC2 instance, it is crucial to avoid termination without creating a backup of your data. Terminating the instance effectively deletes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

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

1. Stopping an EC2 Instance

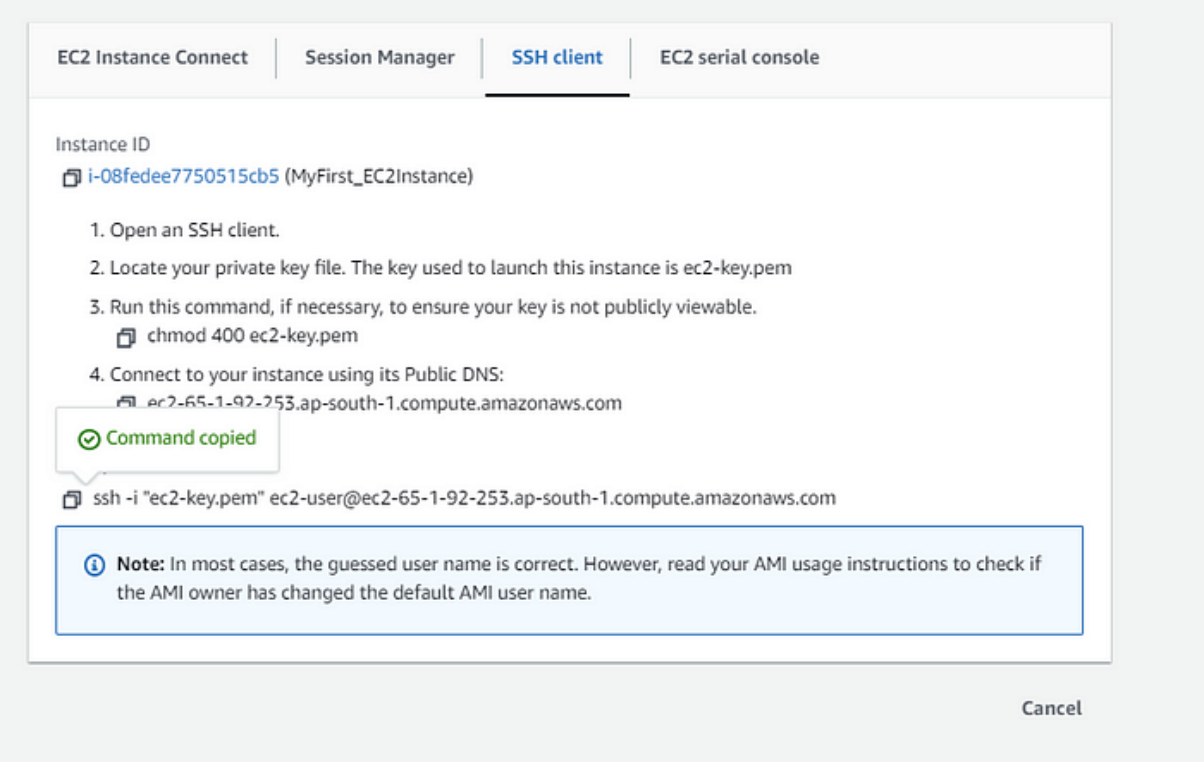


2. Terminating an EC2 Instance

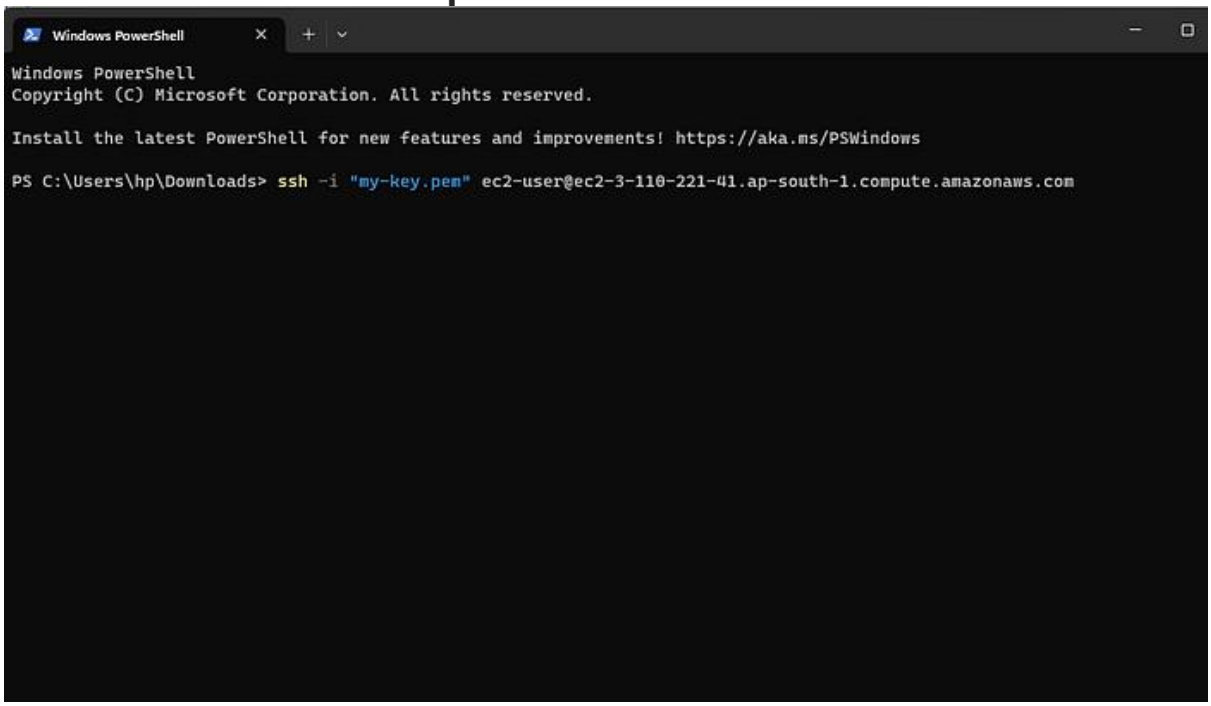


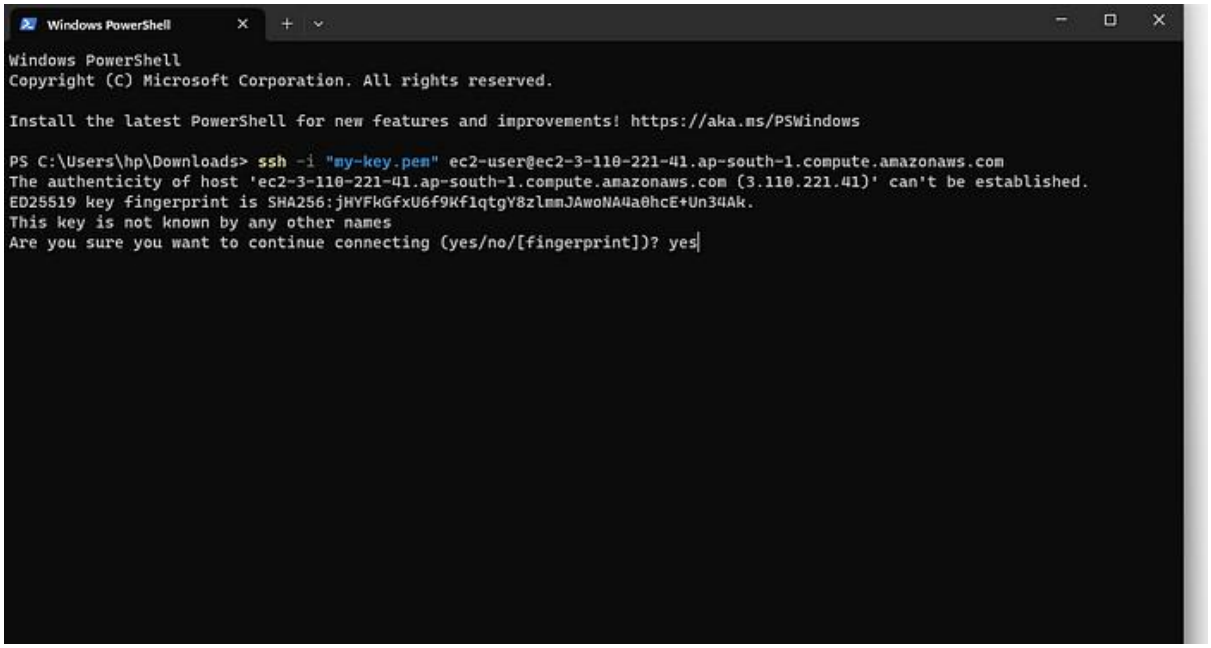
EC2 Instance using ssh on Windows Linux

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.





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