

ASSIGNMENT
ON
AWS - MODULE 1

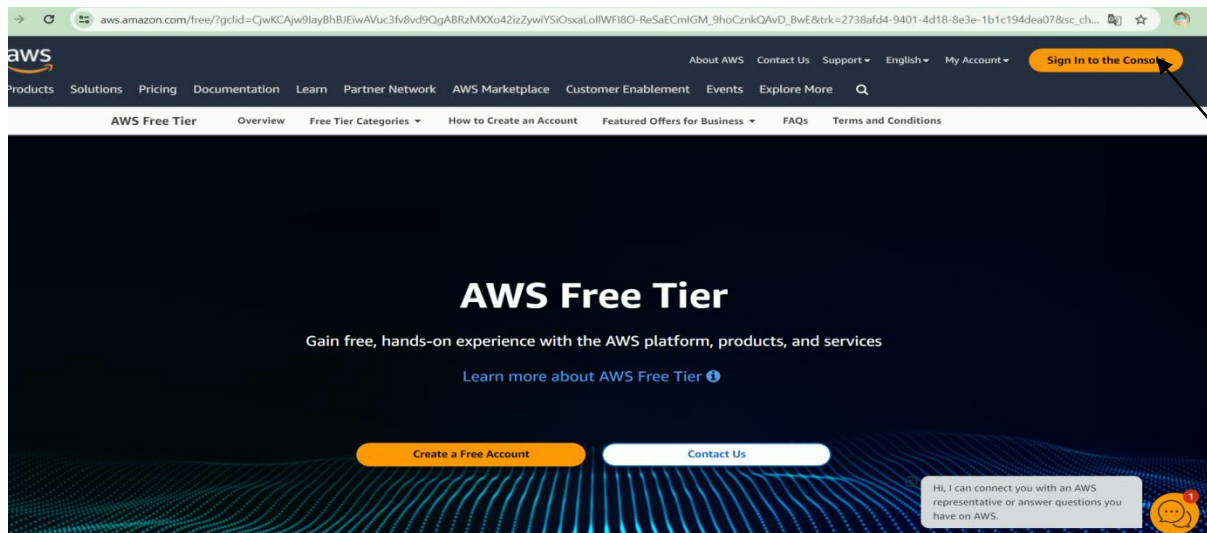
Submitted by: K S Rakesh

Submitted to: Staragile

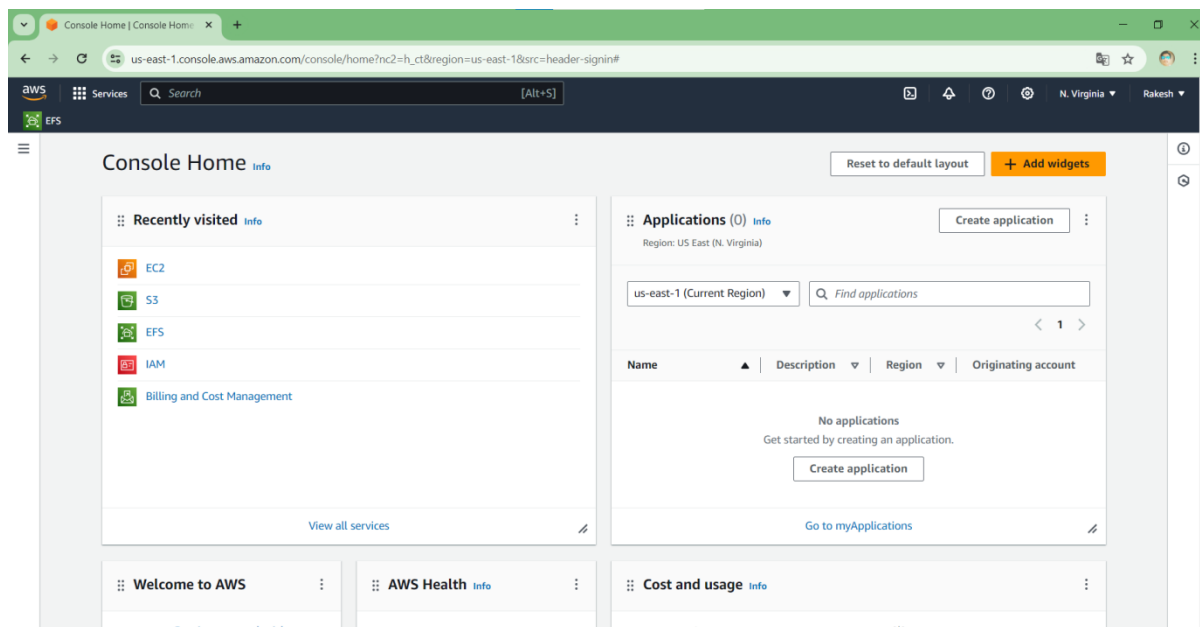
Submitted on: 14/05/2024

L1 - Demonstrate the AWS EC2 Ubuntu Instance Creation steps and connect to EC2 Instance using Mobaxterm/putty agent

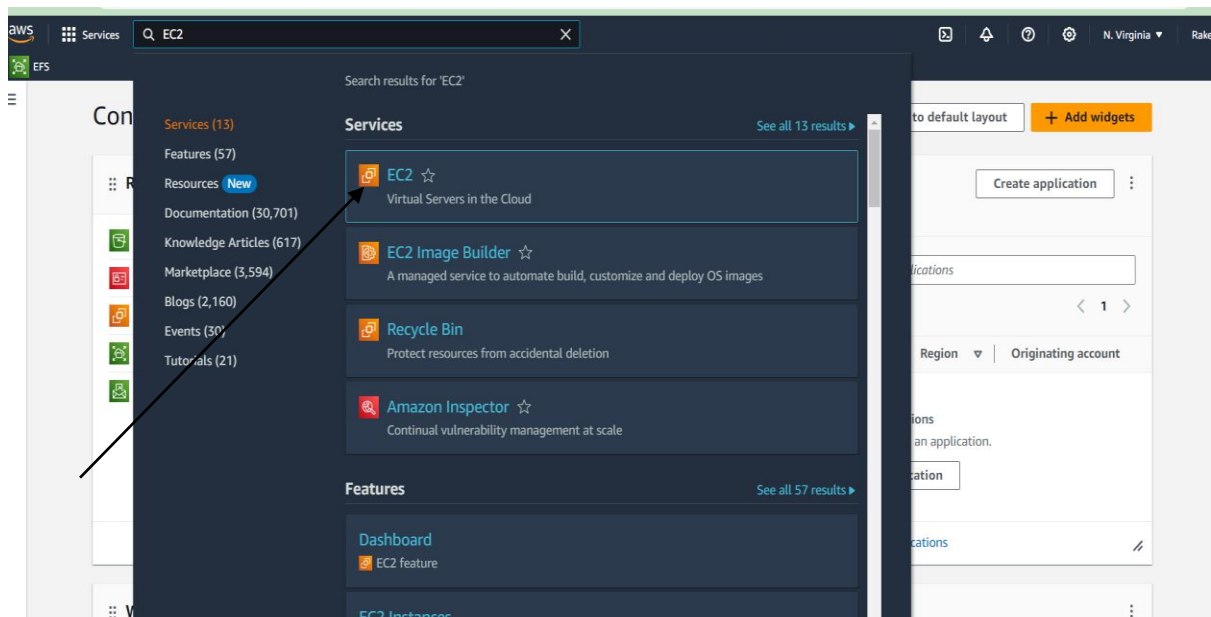
STEP 1: Go to AWS official website and click on sign in to console. Then give account credentials to login to AWS account.



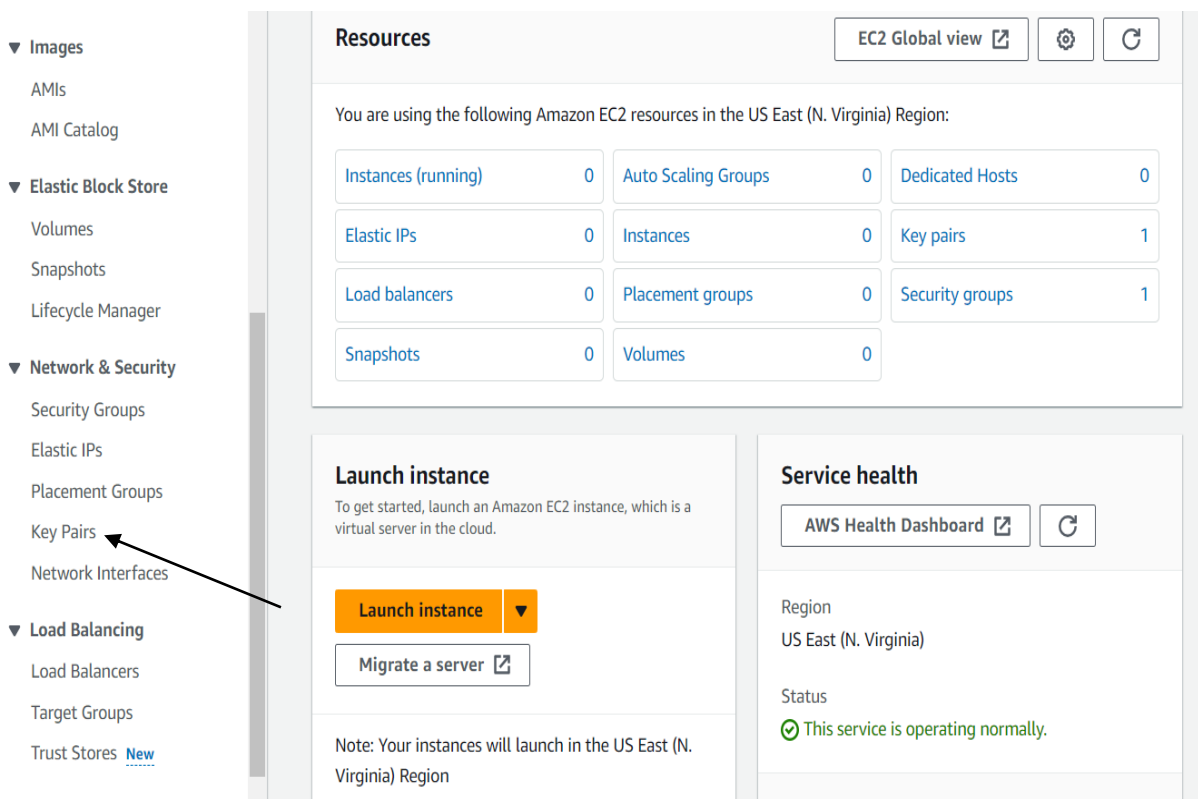
STEP 2: After signing in you will see Console page as shown below.



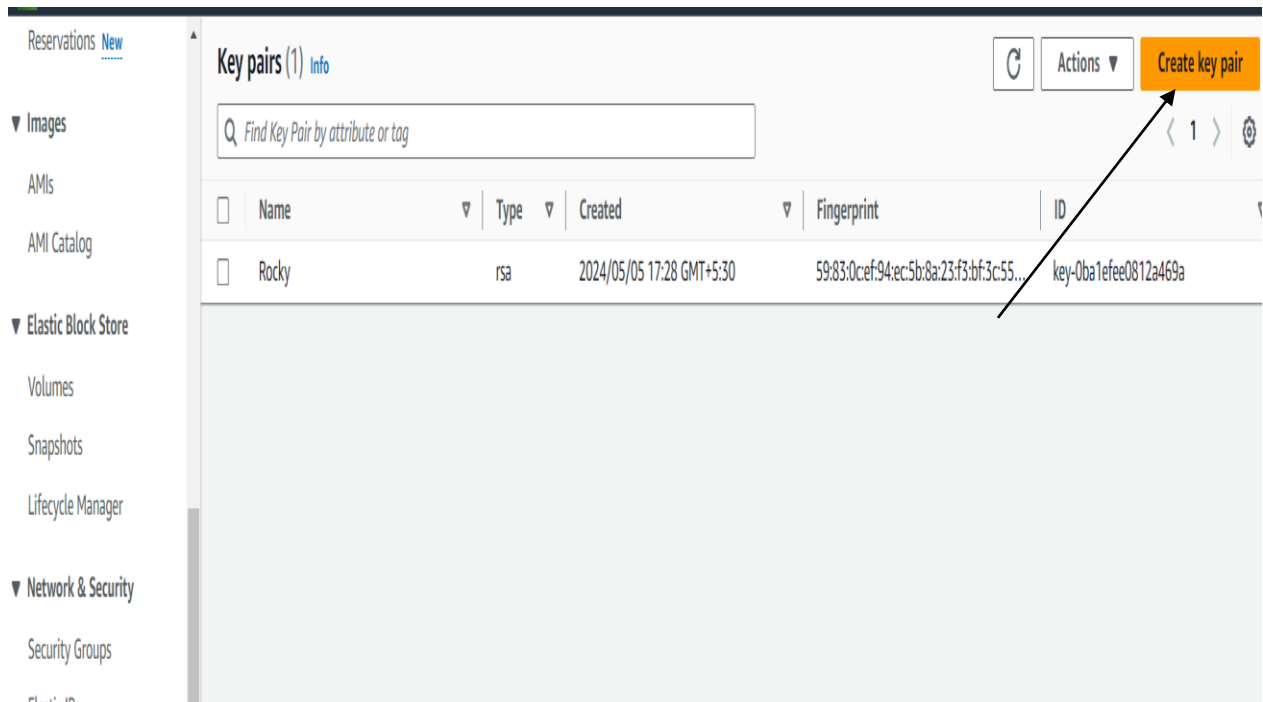
STEP 3: In console home page in **search box** type **EC2 service** and **click** on it.



STEP 4: Now in **EC2 dashboard** under Network and security **click** on **key pairs**.



STEP 5: On **top right side** there is **Create key pair** **click** on it.



STEP 6: Here give **key pair Name** .
Select key pair type RSA.
Select Key file format .pem
Click on create key pair.

The screenshot shows the 'Create Key Pair' wizard in the AWS console. It includes a description of a key pair, a 'Name' field with the value 'staragile', a 'Key pair type' section with 'RSA' selected, and a 'Private key file format' section with '.pem' selected. At the bottom, there are 'Cancel' and 'Create key pair' buttons. An arrow points from the text in Step 6 to the 'Create key pair' button.

Key pair
A key pair, consisting of a private key and a public key, is a set of security credentials that you use to prove your identity when connecting to an instance.

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

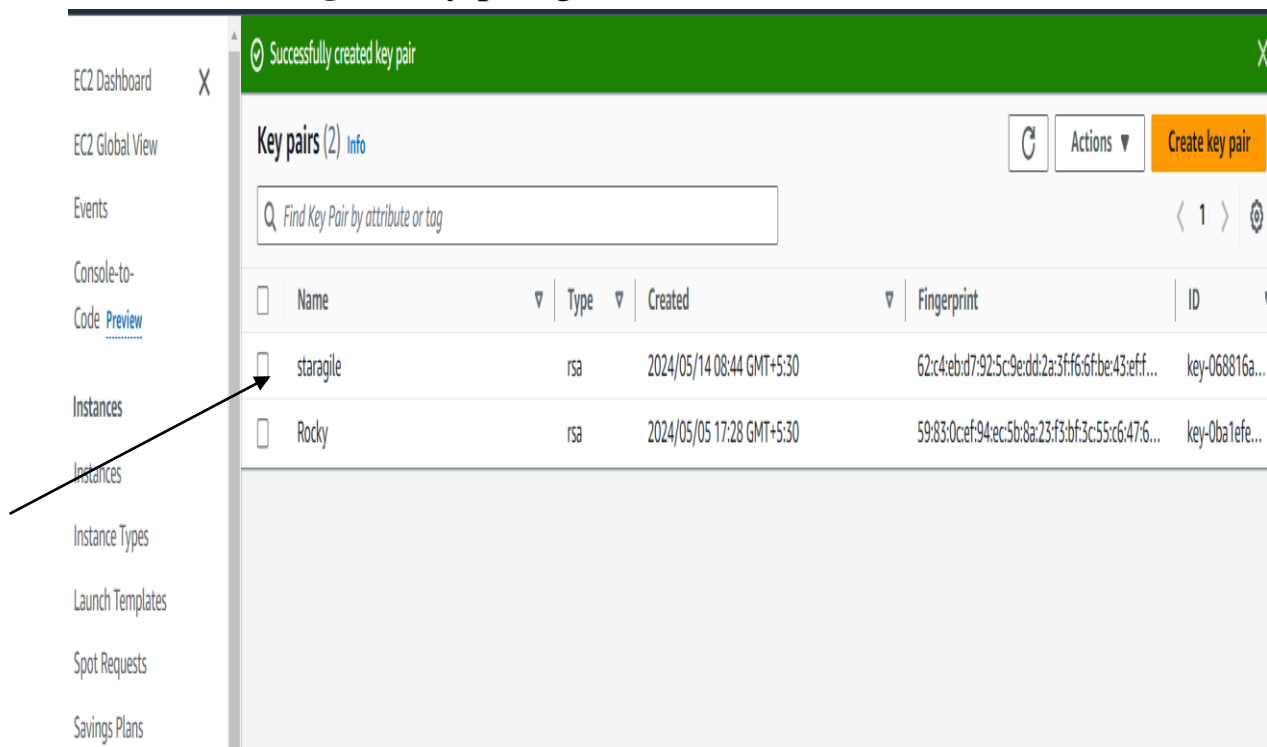
Key pair type **Info**
☒ RSA ☐ ED25519

Private key file format
☒ .pem For use with OpenSSH
☐ .ppk For use with PuTTY

Tags - optional
No tags associated with the resource.
Add new tag
You can add up to 50 more tags.

Cancel Create key pair

STEP 6: staragile key pair got created.



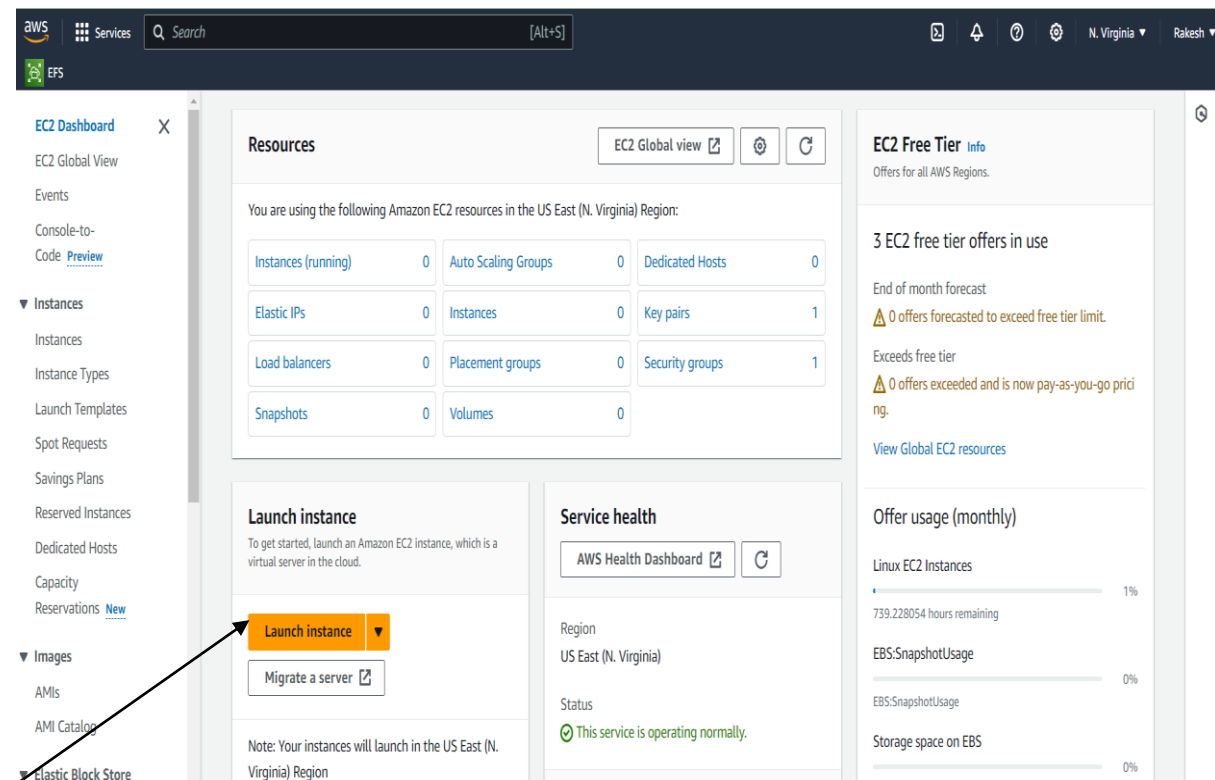
Successfully created key pair

Key pairs (2) Info

Find Key Pair by attribute or tag

	Name	Type	Created	Fingerprint	ID
<input type="checkbox"/>	staragile	rsa	2024/05/14 08:44 GMT+5:30	62:c4:eb:d7:92:5c:9e:dd:2a:3f:f6:6f:be:43:eff...	key-068816a...
<input type="checkbox"/>	Rocky	rsa	2024/05/05 17:28 GMT+5:30	59:83:0c:ef:94:ec:5b:8a:23:f3:bf:3c:55:c6:47:6...	key-0ba1efe...

STEP 7: After creation of key pair go to EC2 dashboard click on Launch Instance.



Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

Resource	Count
Instances (running)	0
Elastic IPs	0
Load balancers	0
Snapshots	0
Auto Scaling Groups	0
Instances	0
Placement groups	0
Volumes	0
Dedicated Hosts	0
Key pairs	1
Security groups	1

Launch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

Launch instance

Migrate a server

Note: Your instances will launch in the US East (N. Virginia) Region

Service health

AWS Health Dashboard

Region: US East (N. Virginia)

Status: This service is operating normally.

EC2 Free Tier Info

Offers for all AWS Regions.

3 EC2 free tier offers in use

End of month forecast

0 offers forecasted to exceed free tier limit.

Exceeds free tier

0 offers exceeded and is now pay-as-you-go pricing.

View Global EC2 resources

Offer usage (monthly)

Linux EC2 Instances

739.228054 hours remaining

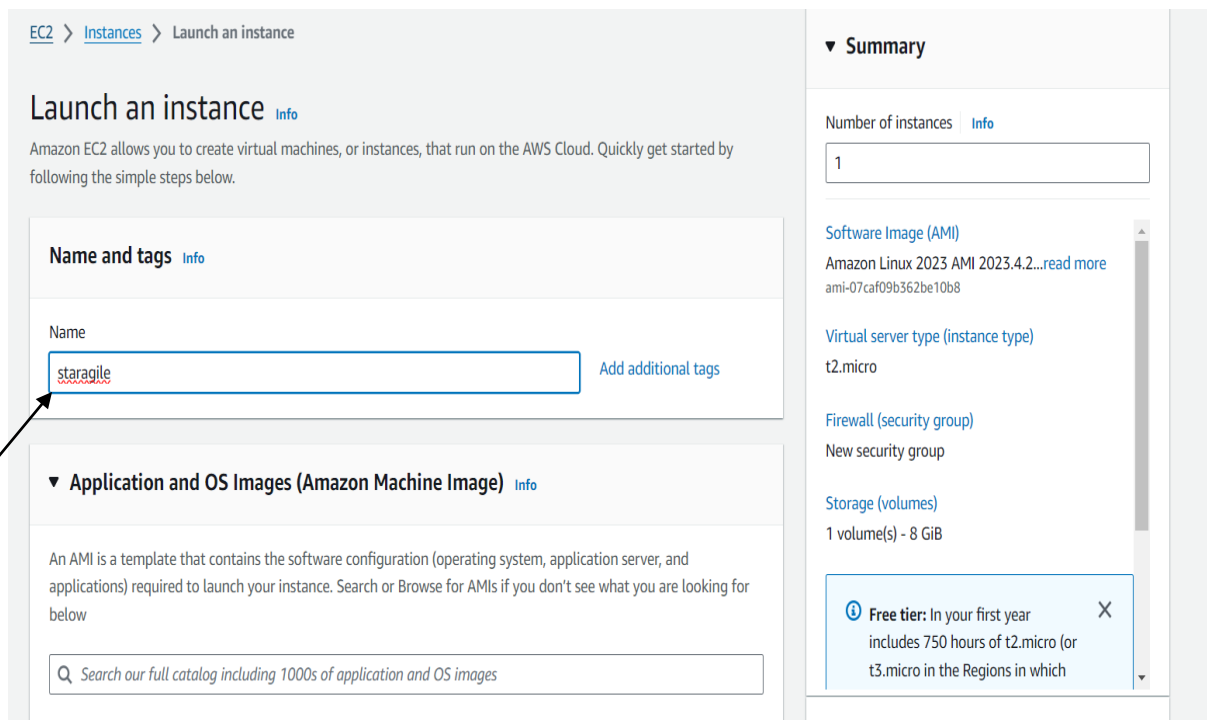
EBS:SnapshotUsage

0%

Storage space on EBS

0%

STEP 8: Here under ‘Name and tags’ give Name of the **instance** [staragile].



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

staragile [Add additional tags](#)

▼ 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

▼ Summary

Number of instances [Info](#)

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.4.2...[read more](#)
ami-07caf09b362be10b8

Virtual server type (instance type)

t2.micro

Firewall (security group)

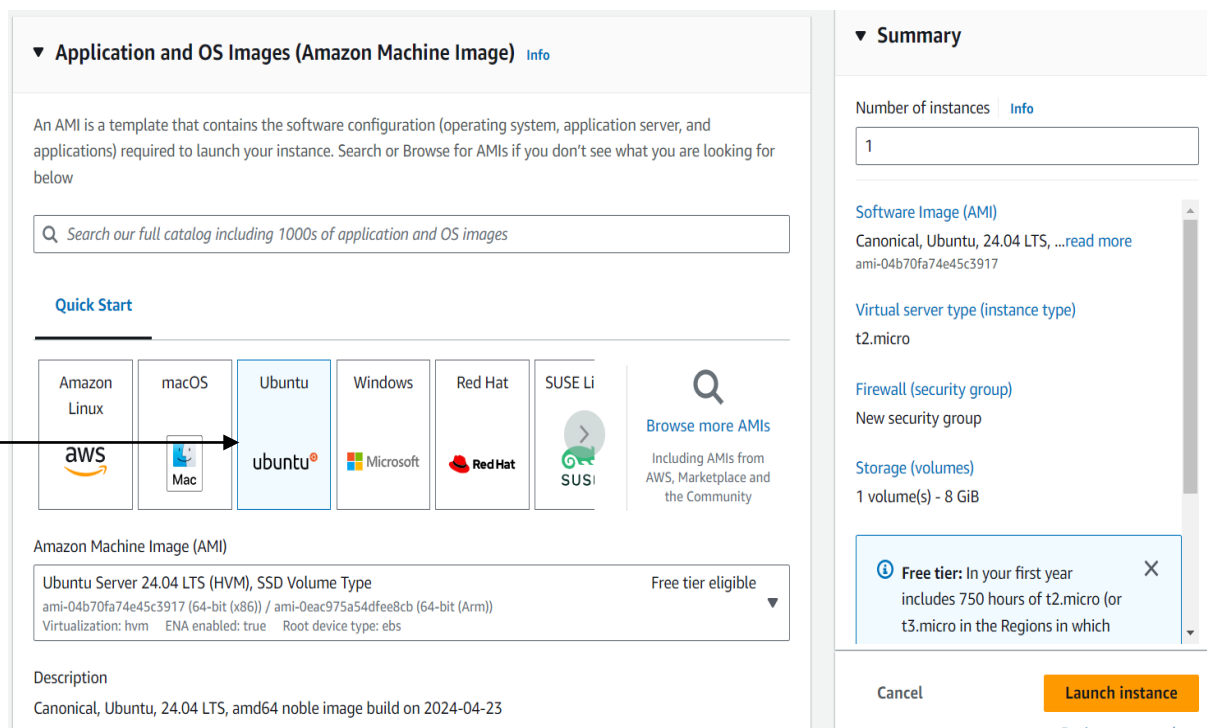
New security group

Storage (volumes)

1 volume(s) - 8 GiB

[Free tier](#): In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which

STEP 9: Next **Select AMI** [Operating system] i.e **Ubuntu**.



▼ 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

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE Linux

[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-04b70fa74e45c3917 (64-bit (x86)) / ami-0eac975a54dfee8cb (64-bit (Arm))

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

Description

Canonical, Ubuntu, 24.04 LTS, amd64 noble image build on 2024-04-23

▼ Summary

Number of instances [Info](#)

1

Software Image (AMI)

Canonical, Ubuntu, 24.04 LTS, ...[read more](#)
ami-04b70fa74e45c3917

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

[Free tier](#): In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which

[Cancel](#) [Launch instance](#)

[Review commands](#)

STEP 7: Now in **Instance type** Select **t2 micro** i.e free tier eligible.

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

Instance type

t2.micro Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Windows base pricing: 0.0162 USD per Hour

On-Demand SUSE base pricing: 0.0116 USD per Hour

On-Demand RHEL base pricing: 0.0716 USD per Hour

On-Demand Linux base pricing: 0.0116 USD per Hour

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

☒ All generations [Compare instance types](#)

▼ 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.

Number of instances [Info](#)

1

Software Image (AMI)

Canonical, Ubuntu, 24.04 LTS, ...[read more](#)

ami-04b70fa74e45c3917

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or

STEP 8: In key pair select created **staragile key pair** as shown below.

▼ 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

staragile

Proceed without a key pair (Not recommended) Default value

staragile ✓

Rocky

Type: rsa

vpc-uer1c77009146470a

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](#)

[Create new key pair](#)

[Edit](#)

STEP 9: Keep network settings default.

And in **security group** click **select existing security group** and select **default** as shown below.

▼ **Network settings** [Info](#) [Edit](#)

Network [Info](#)
vpc-0ef1c77009f46470a

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

Common security groups [Info](#)

Select security groups

Search

☒ default
VPC: vpc-0ef1c77009f46470a sg-095ad19cfe8e7e7d9

[Compare security group rules](#)

STEP 10: Keep configure storage and advanced details default .

And **click** on **Launch instance**.

▼ **Configure storage** [Info](#) [Advanced](#)

1x 8 GiB gp3 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](#)

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

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.

0 x File systems [Edit](#)

► **Advanced details** [Info](#)

Number of instances [Info](#)
1

Software Image (AMI)
Canonical, Ubuntu, 24.04 LTS, ...read more
ami-04b70fa74e45c3917

Virtual server type (instance type)
t2.micro

Firewall (security group)
default

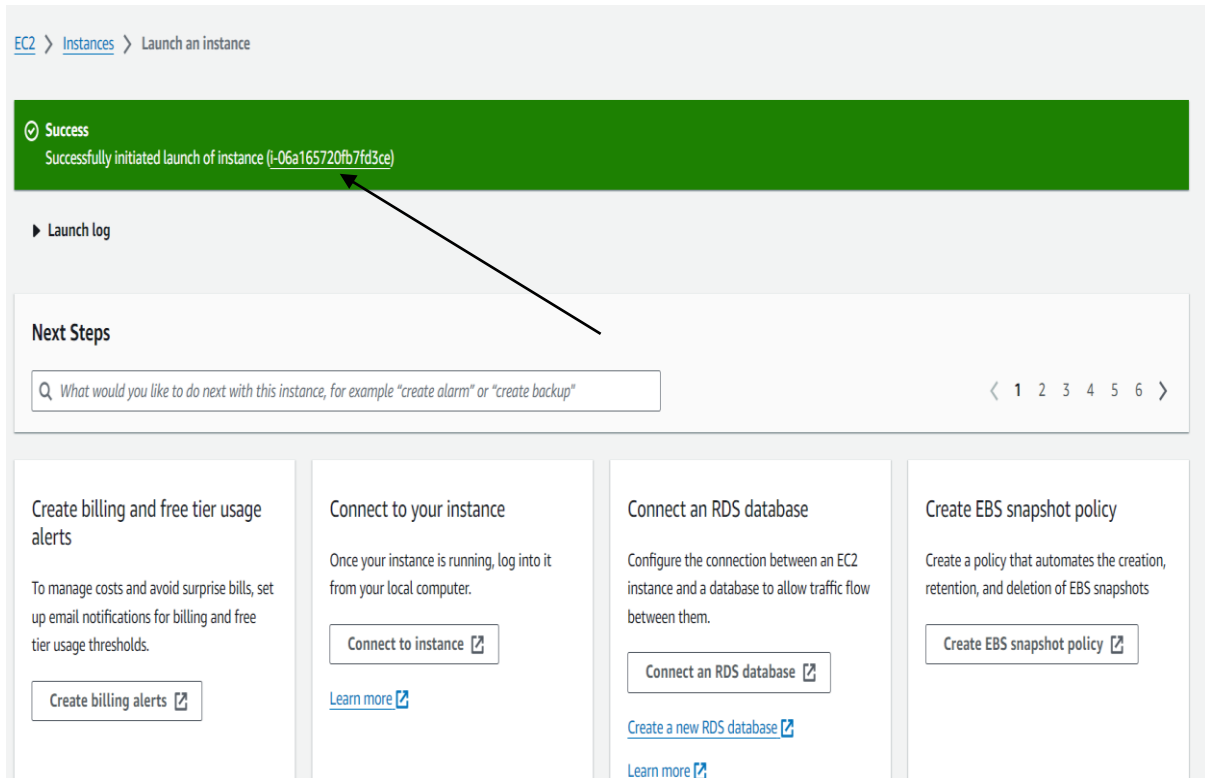
Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which

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

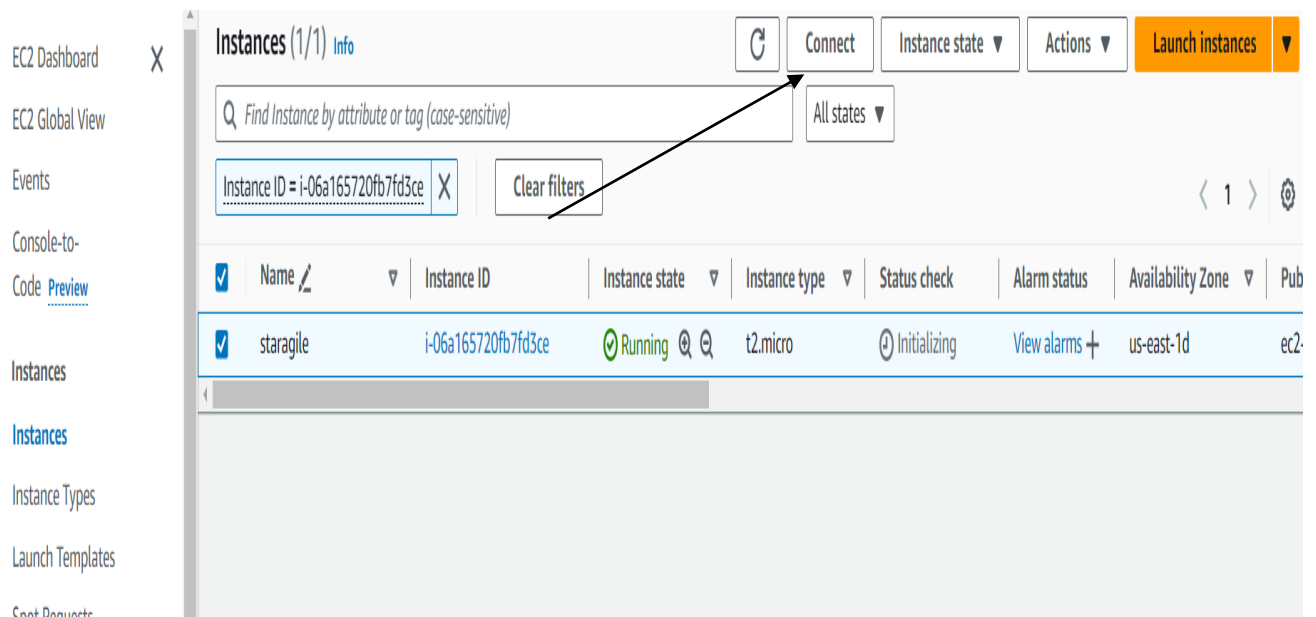
STEP 11: Instance got created successfully.

Now **click** on instance id .

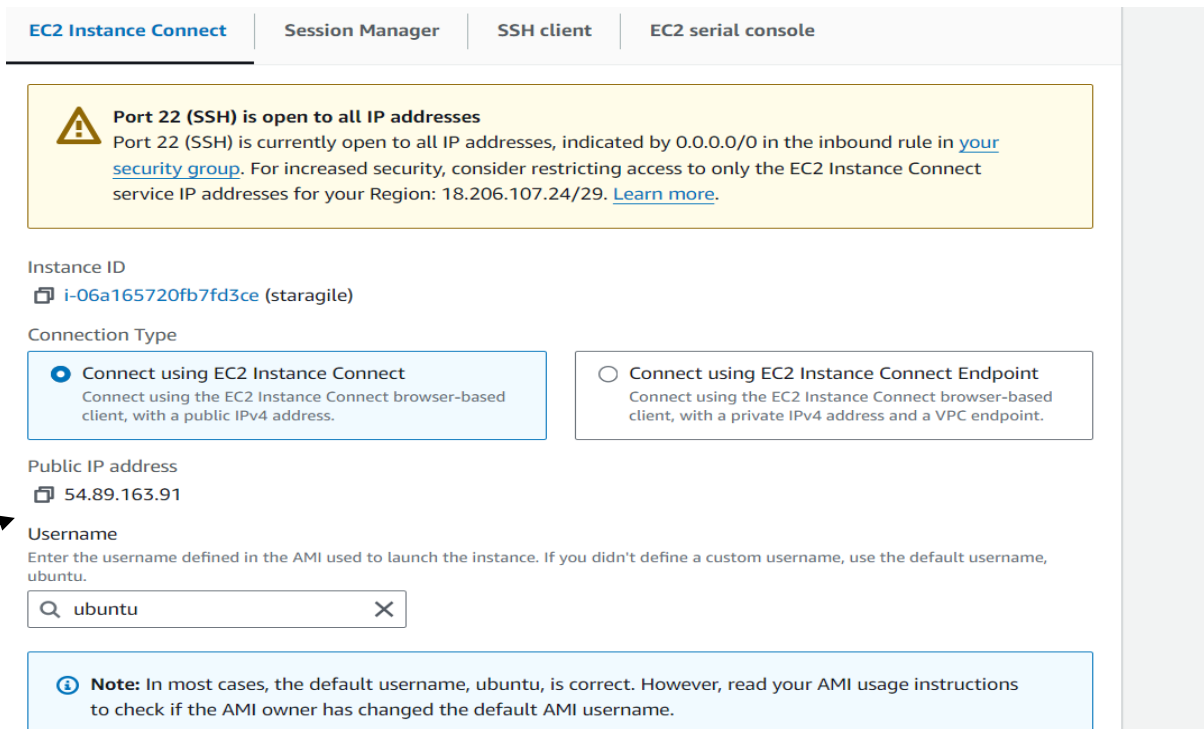


STEP 12: staragile instance is **selected** as can see in the below picture.

Now **click** on **connect**.



STEP 13: Now copy the **public IP address** and **user name**.



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

Port 22 (SSH) is open to all IP addresses
Port 22 (SSH) is currently open to all IP addresses, indicated by 0.0.0.0/0 in the inbound rule in [your security group](#). For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 18.206.107.24/29. [Learn more](#).

Instance ID
i-06a165720fb7fd3ce (staragile)

Connection Type

☒ **Connect using EC2 Instance Connect**
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.

☐ **Connect using EC2 Instance Connect Endpoint**
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

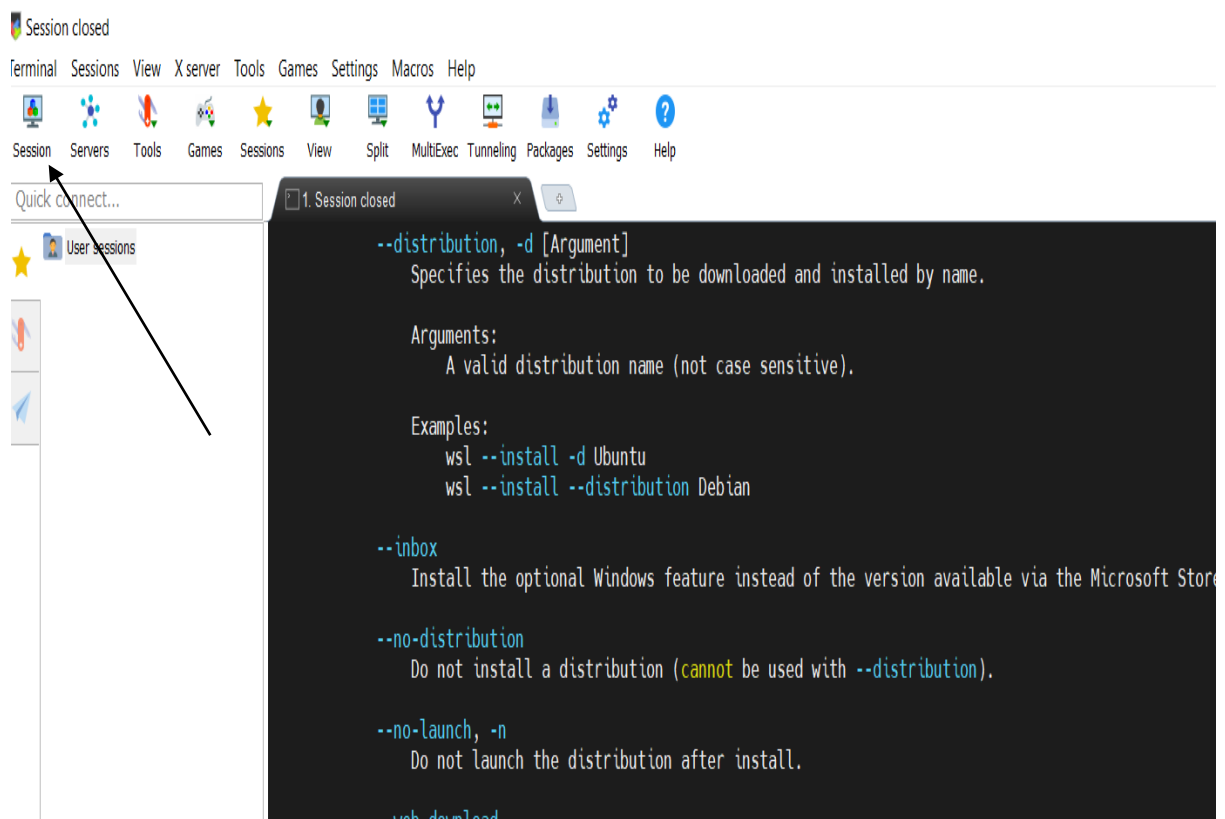
Public IP address
54.89.163.91

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, ubuntu.

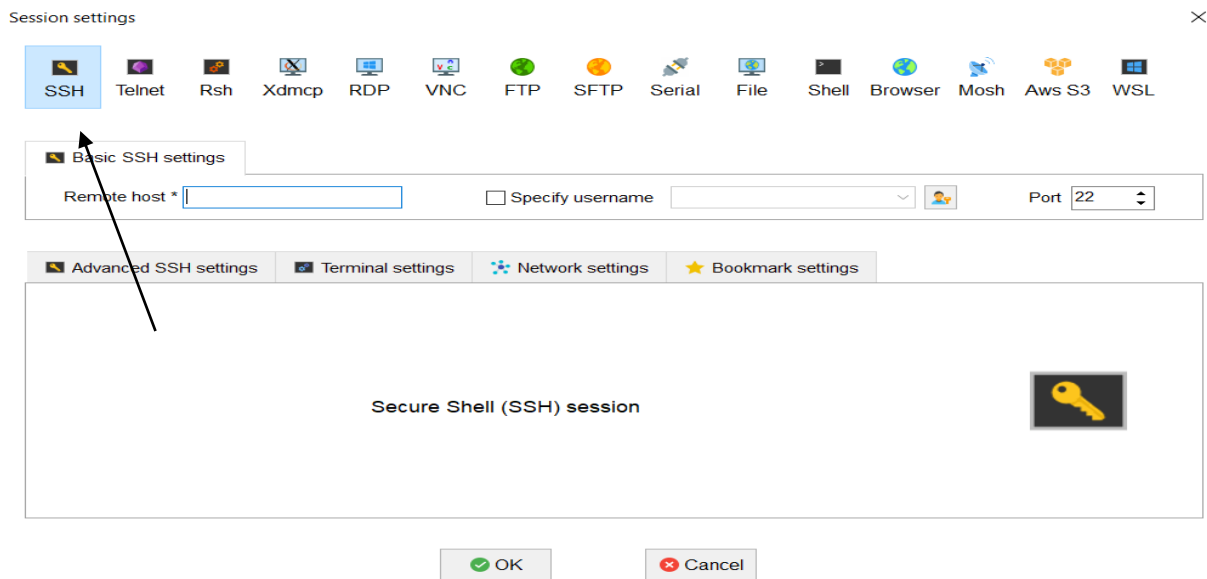
Q ubuntu X

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

STEP 14: To connect instance **open the Mobaxtreme** And **click on session** on top left side.

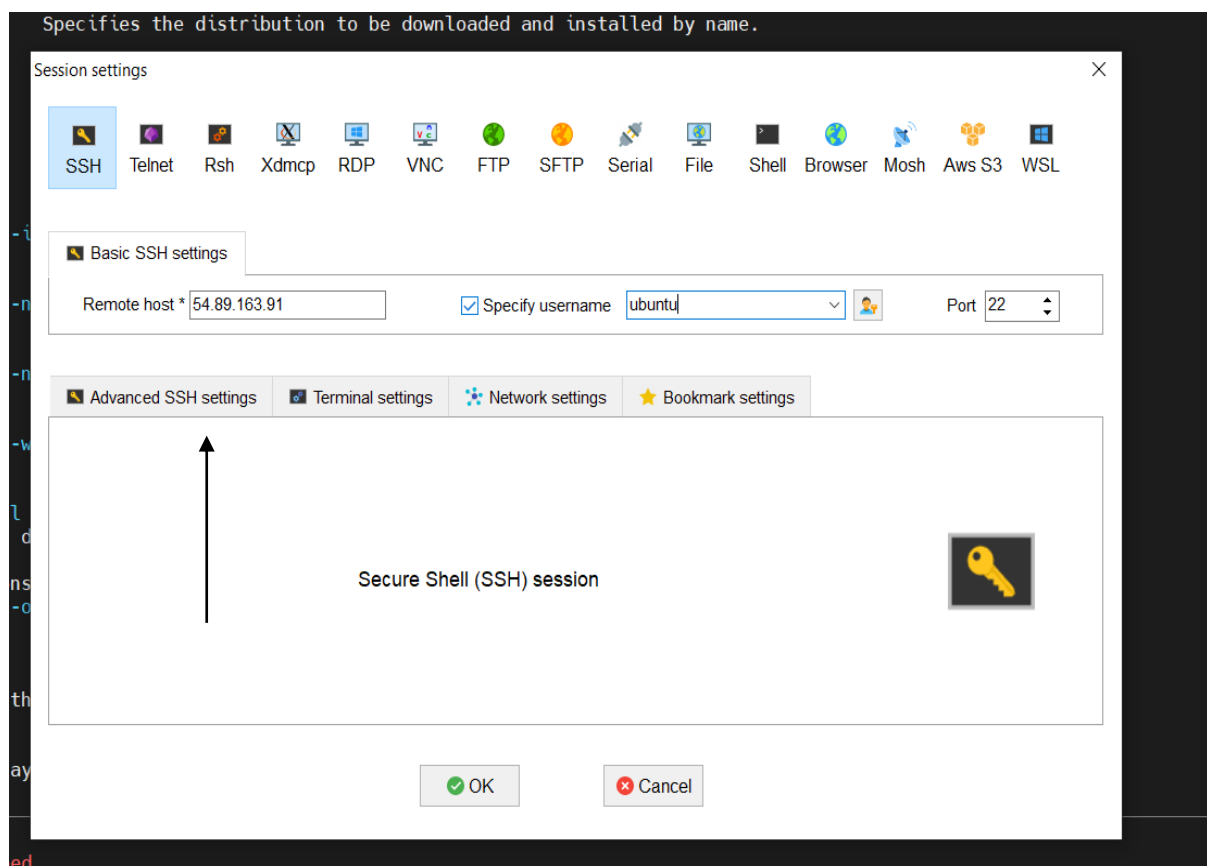


STEP 15: Now **click** on **SSH** On top left side of the picture.

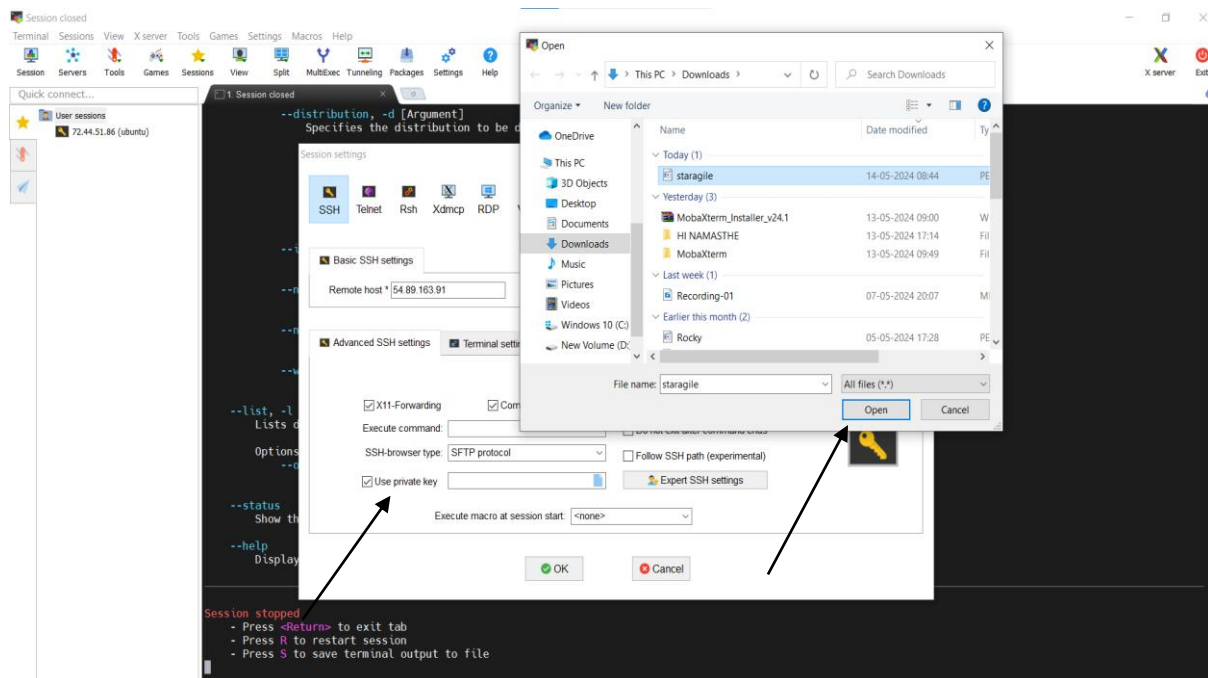


STEP 16: Paste the **Public IP address** in Remote host and **user name** in Specify username **copied in STEP 13.**

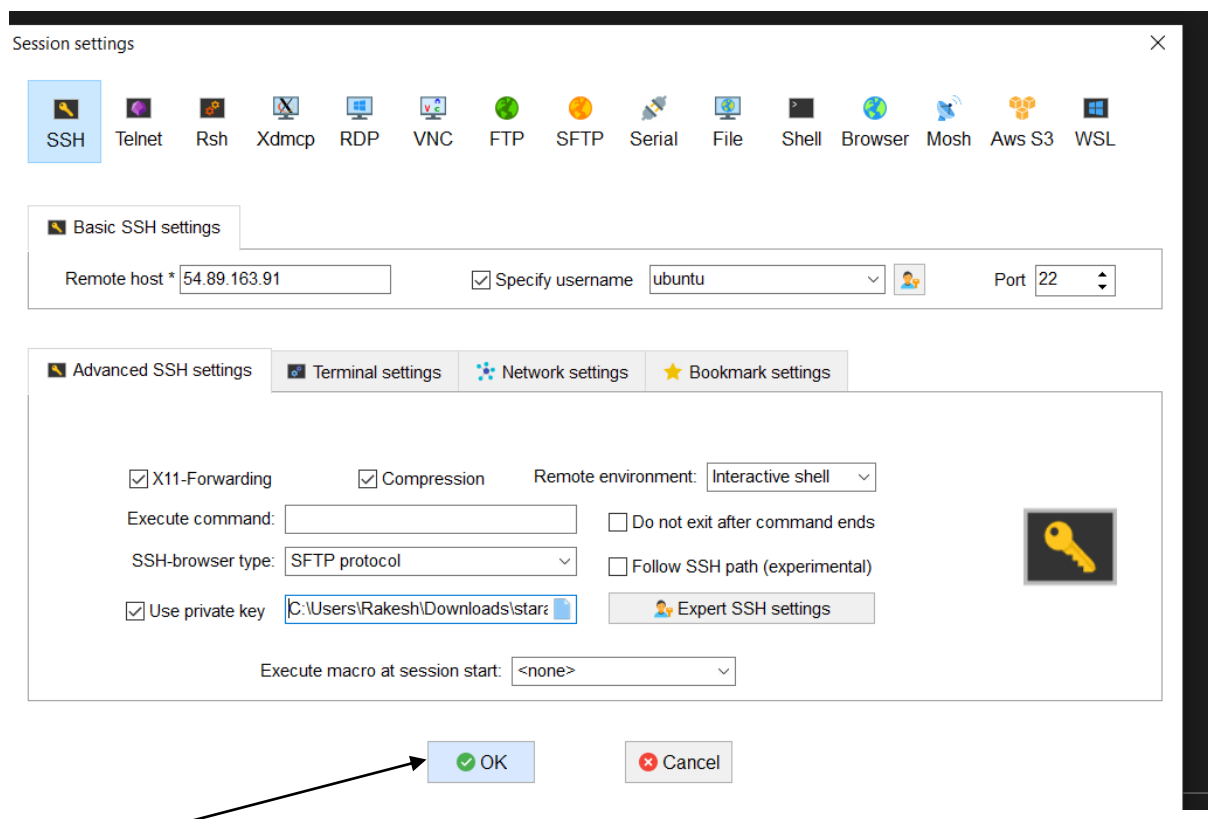
And then **click** on advance settings.



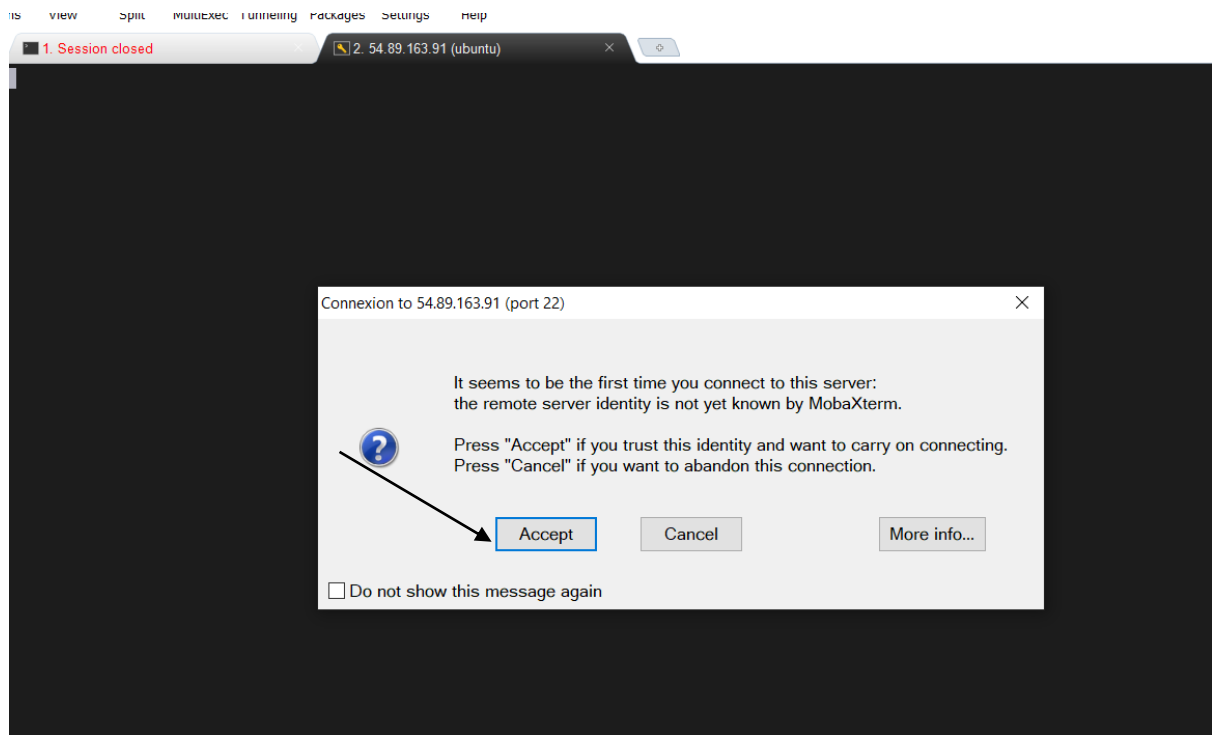
STEP 17: Tick box of **use private key** and select private key of instance from **downloads**[i.e **staragile**] and click **open** as shown below.



STEP 18: Now click on **OK**.



STEP 19 : Click on Accept.



STEP 20: Now Instance got connected through Mobaxtreme.

