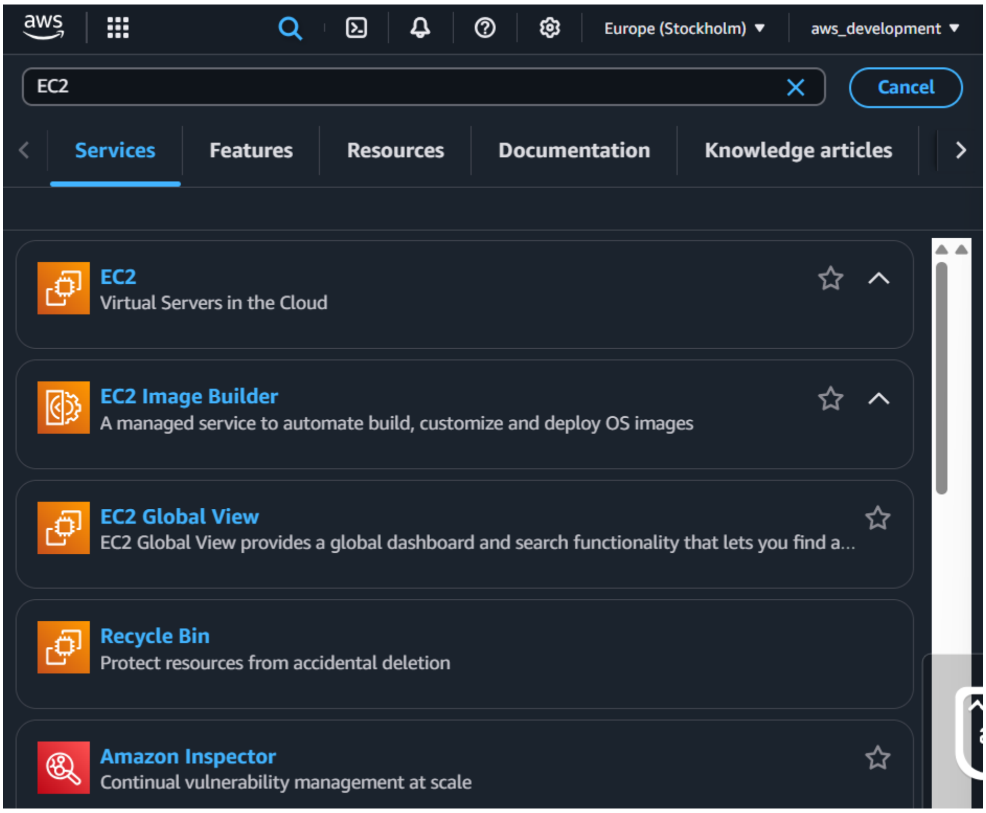
Step 1:

Go to search and Search for EC2 and Select it



EC2
Virtual Servers in the Cloud

EC2 Image Builder
A managed service to automate build, customize and deploy OS images

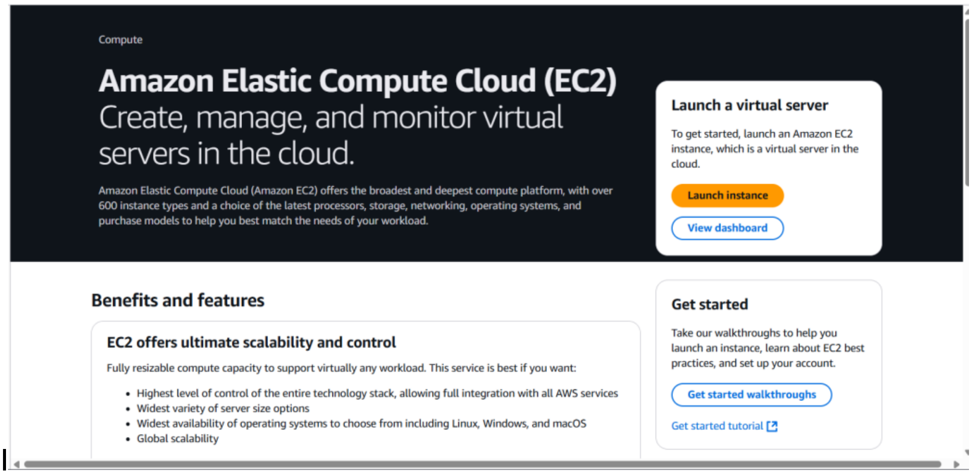
EC2 Global View
EC2 Global View provides a global dashboard and search functionality that lets you find a...

Recycle Bin
Protect resources from accidental deletion

Amazon Inspector
Continual vulnerability management at scale

Step 2:

Click on launch Instance



Compute

Amazon Elastic Compute Cloud (EC2)
Create, manage, and monitor virtual servers in the cloud.

Amazon Elastic Compute Cloud (Amazon EC2) offers the broadest and deepest compute platform, with over 600 instance types and a choice of the latest processors, storage, networking, operating systems, and purchase models to help you best match the needs of your workload.

Launch a virtual server

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

Benefits and features

EC2 offers ultimate scalability and control

Fully resizable compute capacity to support virtually any workload. This service is best if you want:

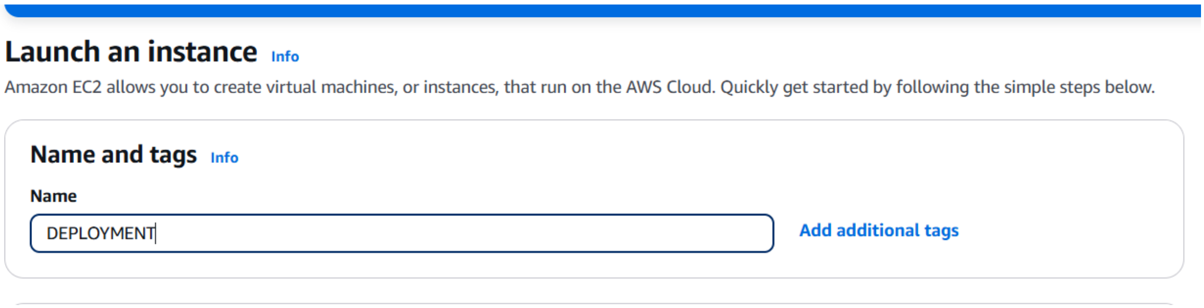
- Highest level of control of the entire technology stack, allowing full integration with all AWS services
- Widest variety of server size options
- Widest availability of operating systems to choose from including Linux, Windows, and macOS
- Global scalability

Get started

Take our walkthroughs to help you launch an instance, learn about EC2 best practices, and set up your account.

Step 3:

Enter Name for your EC2 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.

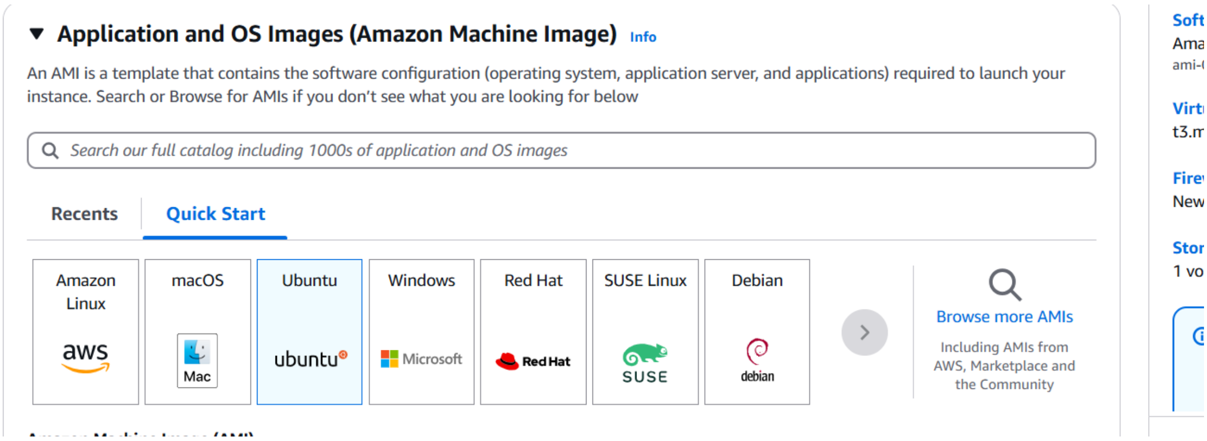
Name and tags Info

Name

DEPLOYMENT

Step 4:

Scroll down and choose ubuntu



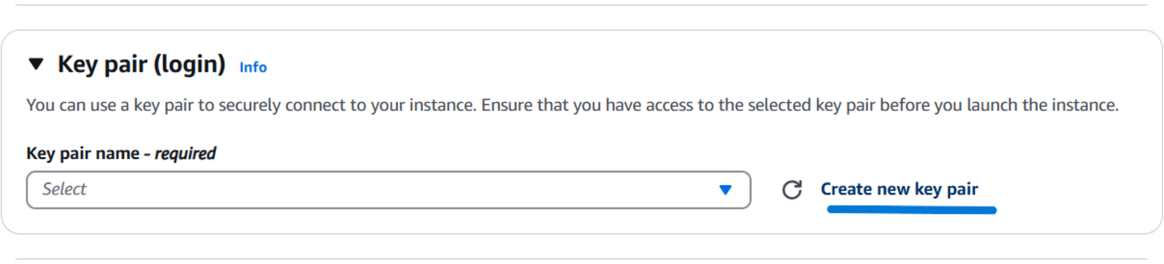
Application and OS Images (Amazon Machine Image) Info

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

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

Step 5:

Scroll Down and In the KEY PAIR SELECT "CREATE NEW 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.

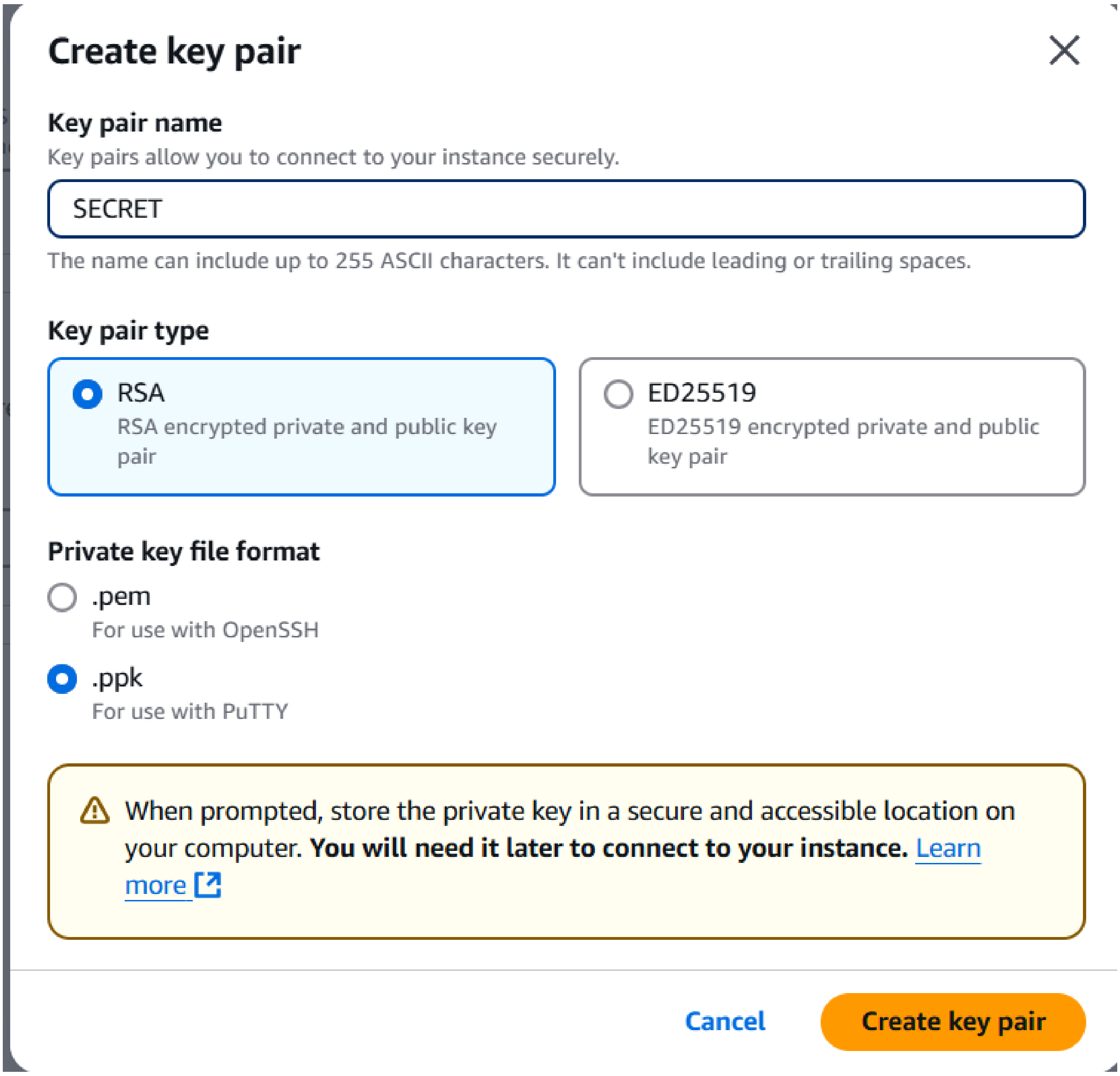
Key pair name - *required*

Select

Step 6:

Enter key pair name and select .ppk and click create key pair and Save it securely

Note: we will use this key pair in further server connection Time



Create key pair

Key pair name

Key pairs allow you to connect to your instance securely.

SECRET

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

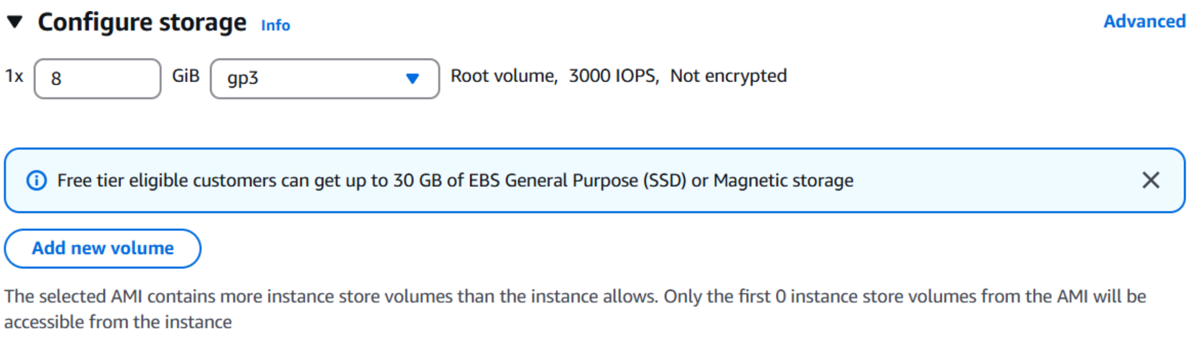
○ .pem
For use with OpenSSH

● .ppk
For use with PuTTY

⚠ When prompted, store the private key in a secure and accessible location on your computer. **You will need it later to connect to your instance.** Learn more

Step 7:

Scroll Down configure Storage and Enter storage according to Your Project Requirements. Choose between 10 to 20gb



Configure storage Info Advanced

1x 8 GiB gp3 Root volume, 3000 IOPS, 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

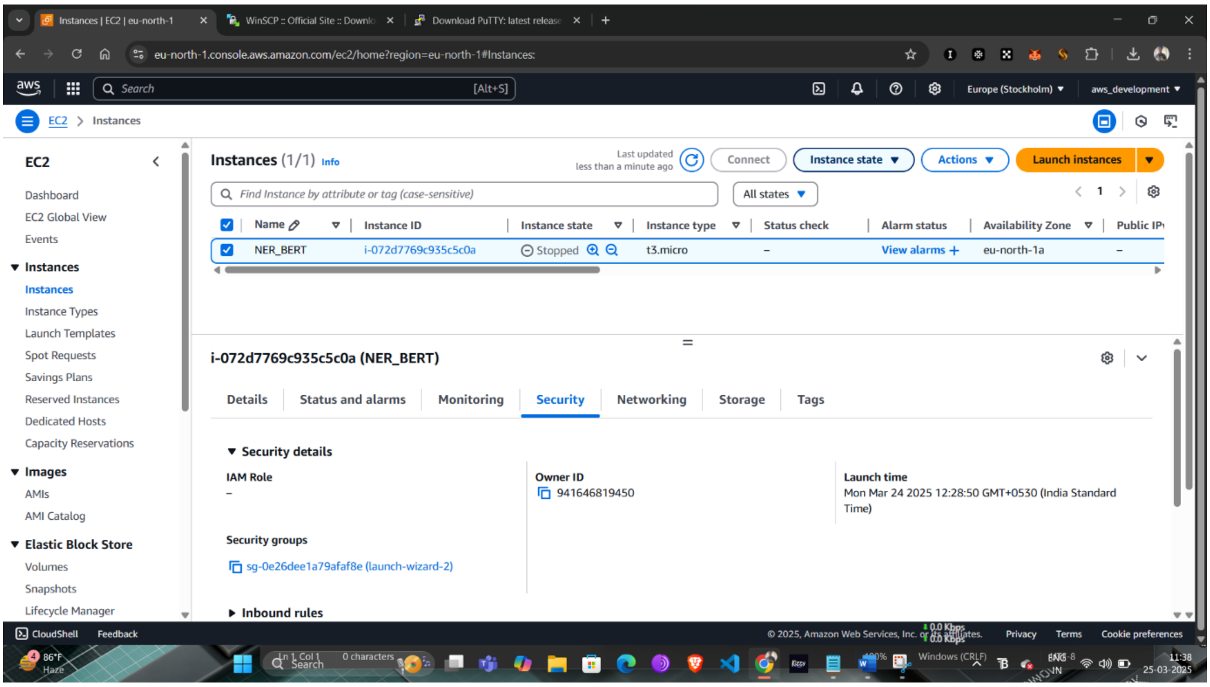
Step 8:

Scroll Down and click launch Instance

Successfully created Instance..

Step 9:

Go to your Instance and Click on the instance State and click Start



eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#Instances:

EC2 > Instances

Instances (1/1) Info

Last updated less than a minute ago

Connect | Instance state ▼ | Actions ▼ | Launch instances ▼

Find Instance by attribute or tag (case-sensitive) | All states ▼

☑	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
☑	NER_BERT	i-072d7769c935c5c0a	Stopped	t3.micro	–	View alarms +	eu-north-1a	–

i-072d7769c935c5c0a (NER_BERT)

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

▼ Security details

IAM Role
–

Owner ID
941646819450

Launch time
Mon Mar 24 2025 12:28:50 GMT+0530 (India Standard Time)

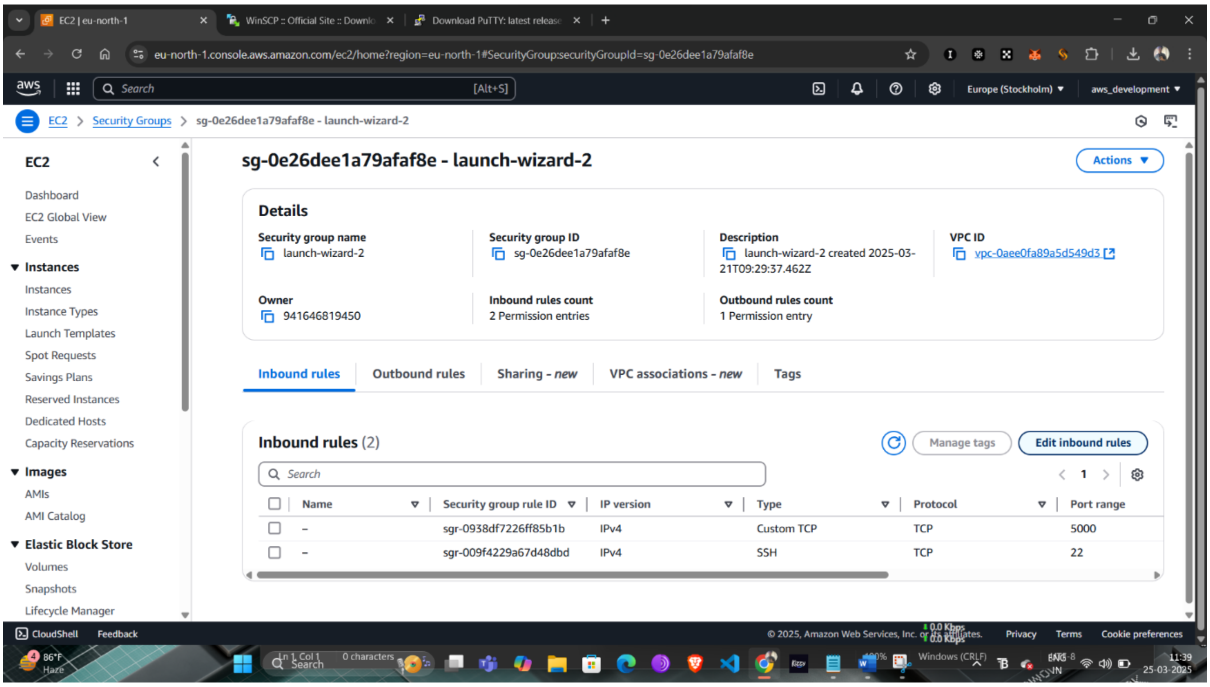
Security groups
sg-0e26dee1a79afaf8e (launch-wizard-2)

▶ Inbound rules

Now Go to Security > In Security Details >Click Link Below the Security Groups

Step10:

Click Edit inbound rules



sg-0e26dee1a79afaf8e - launch-wizard-2

Details

Security group name: launch-wizard-2

Security group ID: sg-0e26dee1a79afaf8e

Description: launch-wizard-2 created 2025-03-21T09:29:37.462Z

VPC ID: vpc-0aee0fa89a5d549d3

Owner: 941646819450

Inbound rules count: 2 Permission entries

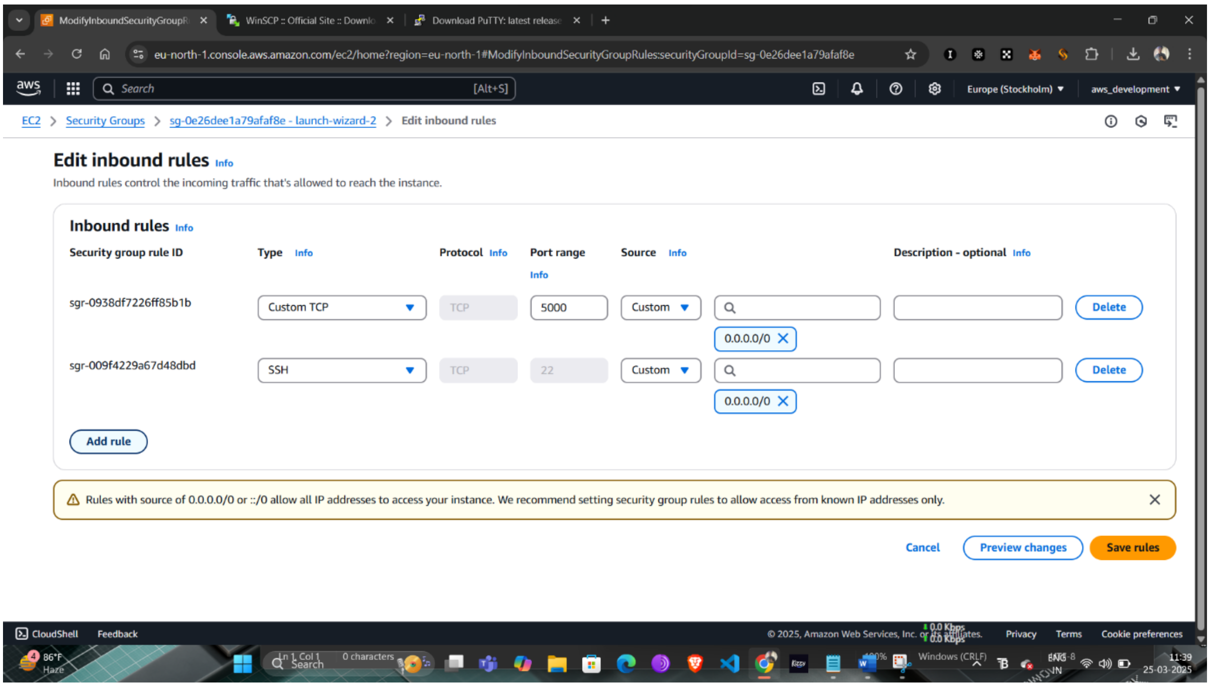
Outbound rules count: 1 Permission entry

Inbound rules (2)

Name	Security group rule ID	IP version	Type	Protocol	Port range
–	sgr-0938df7226ff85b1b	IPv4	Custom TCP	TCP	5000
–	sgr-009f4229a67d48dbd	IPv4	SSH	TCP	22

Step 11:

Click Add rule> PORT RANGE Enter “8080” > Select 0.0.0.0/0 > Click Save Rules


ModifyInboundSecurityGroupR
WinSCP :: Official Site :: Downlo
Download PuTTY: latest release
eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#ModifyInboundSecurityGroupRules:securityGroupId=sg-0e26dee1a79afaf8e
Search [Alt+S]
Europe (Stockholm)
aws_development
EC2 > Security Groups > sg-0e26dee1a79afaf8e - launch-wizard-2 > Edit inbound rules
Delete
Delete
Add rule
Cancel
Preview changes
Save rules
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0938df7226ff85b1b	Custom TCP	TCP	5000	Custom 0.0.0.0/0	
sgr-009f4229a67d48dbd	SSH	TCP	22	Custom 0.0.0.0/0	

Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Step 12:

Now Download WINSCP and PUTTY

Go to: https://winscp.net/eng/download.php and download Winscp

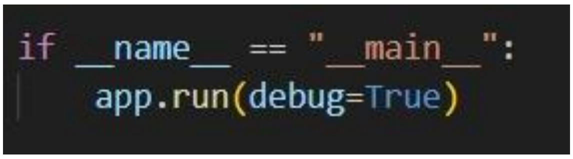
Got to : https://the.earth.li/~sgtatham/putty/latest/w64/putty-64bit-0.83-installer.msi

and Now install the two above softwares

Step 13:

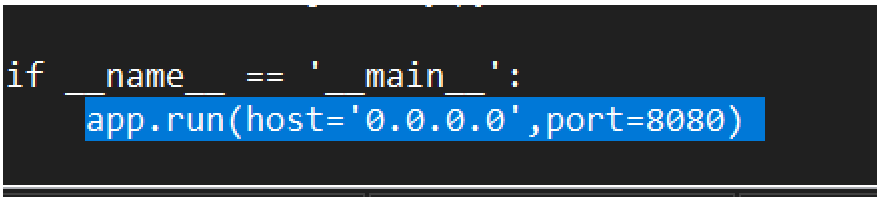
Now go to your app.py and change this lines of code

With:



```
if __name__ == "__main__":
    app.run(debug=True)
```

To:

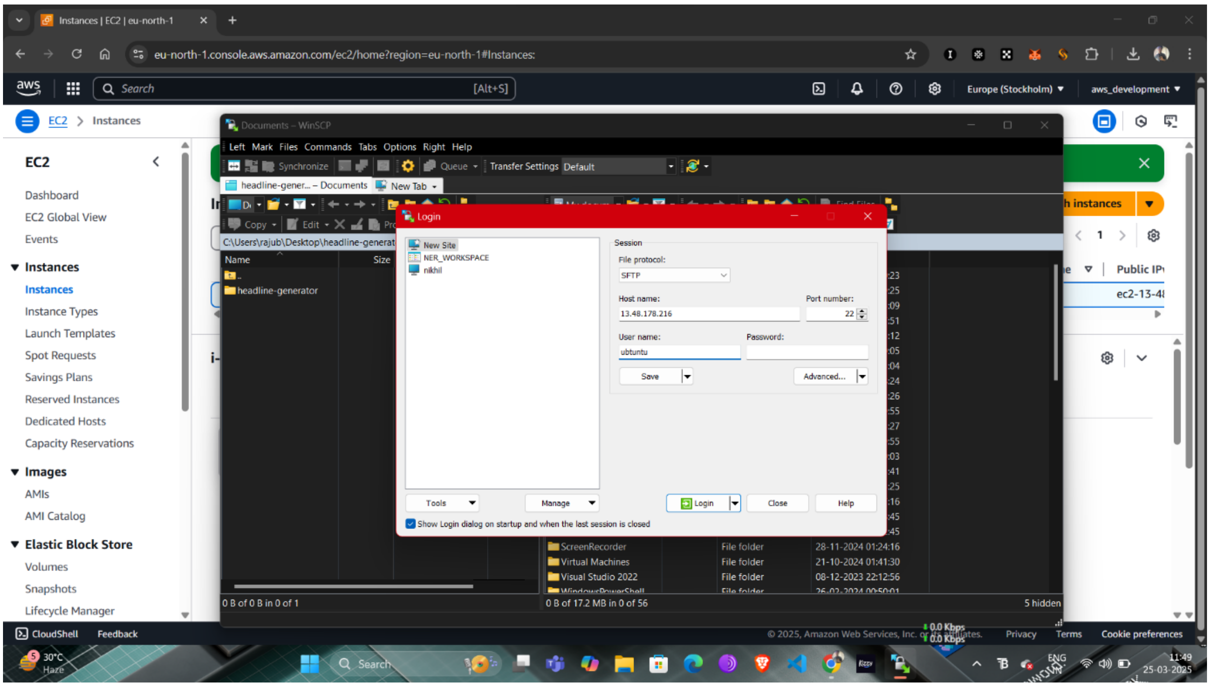


```
if __name__ == '__main__':
    app.run(host='0.0.0.0',port=8080)
```

Step 14:

1.Now Open WINSCP Software installed previously and In place of host name enter the ipv4 public address available in Your instance created in AWS network section

2.In Place or user name enter “ubuntu”



Login

Session

File protocol: SFTP

Host name: 13.48.178.216

Port number: 22

User name: ubtuntu

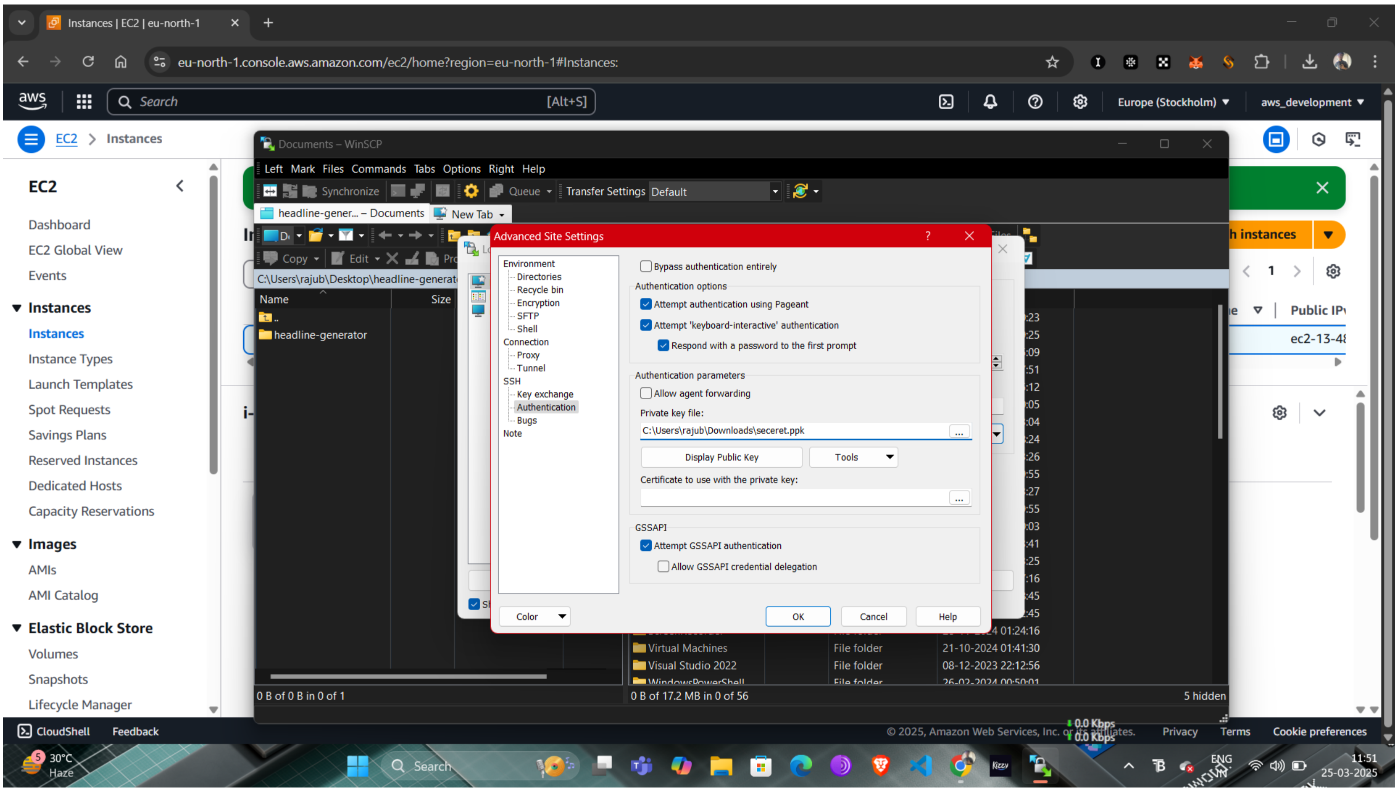
Password:

☑ Show Login dialog on startup and when the last session is closed

Step 15:

Now click on the Adavnced and and another screen appears now choose “Authentication”

2. In Place of Private KEY PAIR FILE upload your key pair which we got from aws



Advanced Site Settings

SSH > Authentication

☐ Bypass authentication entirely

Authentication options

☑ Attempt authentication using Pageant

☑ Attempt 'keyboard-interactive' authentication

☑ Respond with a password to the first prompt

Authentication parameters

☐ Allow agent forwarding

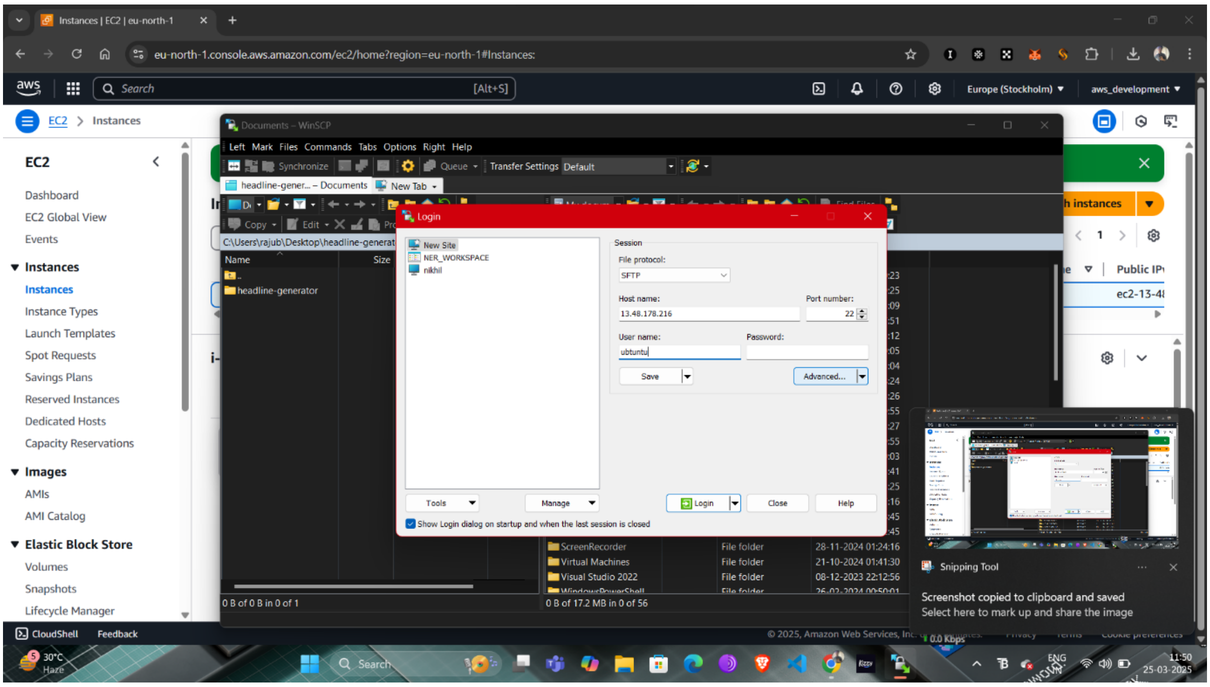
Private key file: C:\Users\rajub\Downloads\seceret.ppk

GSSAPI

☑ Attempt GSSAPI authentication

☐ Allow GSSAPI credential delegation

Step 16:



Login

Session

File protocol: SFTP

Host name: 13.48.178.216

Port number: 22

User name: ubtuntu

Password:

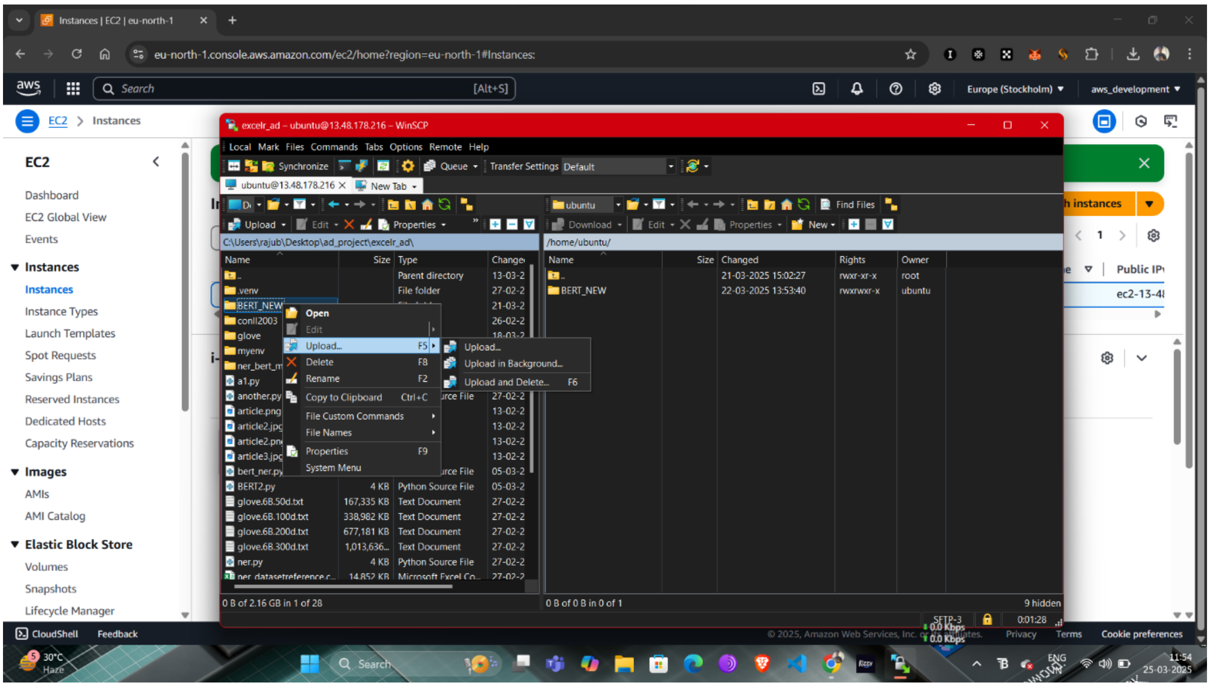
☑ Show Login dialog on startup and when the last session is closed

Now Click Login after upload of your key >click Accept

Note: Must start your instance so we can only connect to our instance/server

Step 17:

If Everything goes Right We get file structure with two section Left Section is the local PC files and Right Section is the Server/Instance Structure



C:\Users\rajub\Desktop\ad_project\excelr_ad\

Name	Size	Type	Change
..		Parent directory	13-03-2
.venv		File folder	27-02-2
BERT_NEW			21-03-2
conll2003			26-02-2
glove			18-03-2
myenv			
ner_bert_m			
a1.py			
another.py		urce File	27-02-2
article.png			13-02-2
article2.jpg			13-02-2
article2.pn			13-02-2
article3.jpg			13-02-2
bert_ner.py		urce File	05-03-2
BERT2.py	4 KB	Python Source File	05-03-2
glove.6B.50d.txt	167,335 KB	Text Document	27-02-2
glove.6B.100d.txt	338,982 KB	Text Document	27-02-2
glove.6B.200d.txt	677,181 KB	Text Document	27-02-2
glove.6B.300d.txt	1,013,636...	Text Document	27-02-2
ner.py	4 KB	Python Source File	27-02-2
ner_datasetreference.c...	14,852 KB	Microsoft Excel Co...	27-02-2

0 B of 2.16 GB in 1 of 28

/home/ubuntu/

Name	Size	Changed	Rights	Owner
..		21-03-2025 15:02:27	rwxr-xr-x	root
BERT_NEW		22-03-2025 13:53:40	rwxrwxr-x	ubuntu

0 B of 0 B in 0 of 1

9 hidden

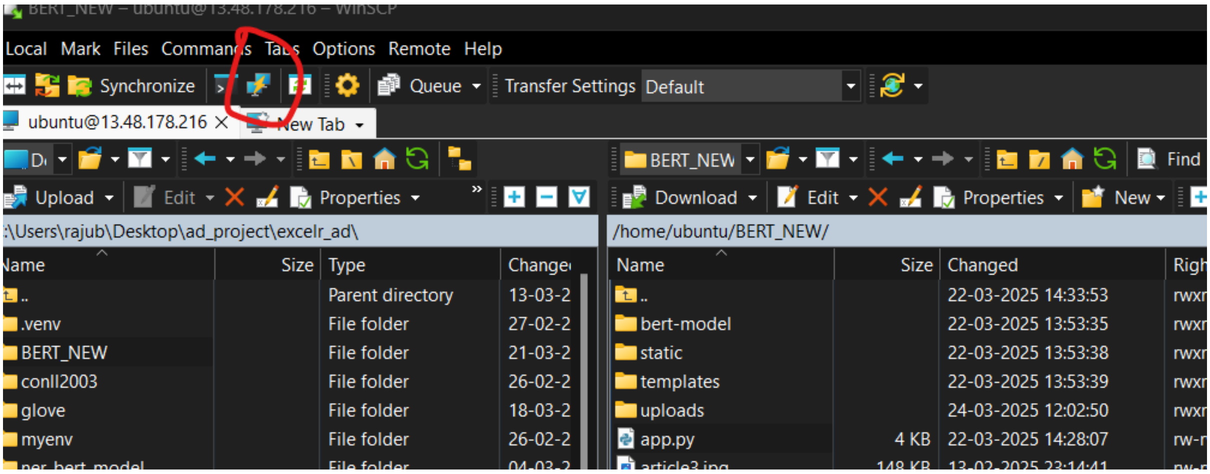
Step 18:

Now Find Your Project Folder in the left section of folders > and right click on it and click Upload

It will upload to the Instance

Step 19:

After Uploading the folder to your instance click on the icon showing the image


BERT_NEW – ubuntu@13.48.178.216 – WinSCP
Local Mark Files Commands Tabs Options Remote Help
Synchronize
Queue
Transfer Settings Default
ubuntu@13.48.178.216
New Tab
BERT_NEW
Find
Upload
Edit
Properties
Download
New

:\Users\rajub\Desktop\ad_project\excelr_ad\

Name	Size	Type	Change
..		Parent directory	13-03-2
.venv		File folder	27-02-2
BERT_NEW		File folder	21-03-2
conll2003		File folder	26-02-2
glove		File folder	18-03-2
myenv		File folder	26-02-2
ner_bert_model		File folder	04-03-2

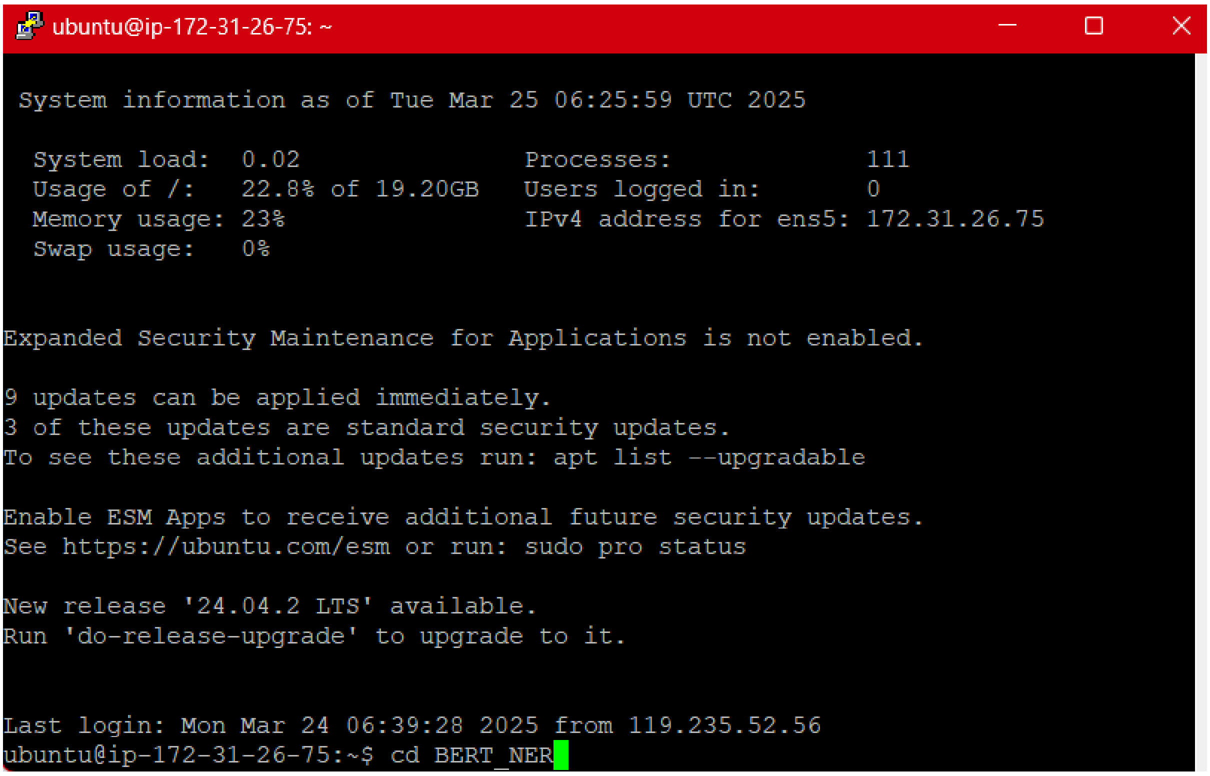
/home/ubuntu/BERT_NEW/

Name	Size	Changed	Righ
..		22-03-2025 14:33:53	rwxr
bert-model		22-03-2025 13:53:35	rwxr
static		22-03-2025 13:53:38	rwxr
templates		22-03-2025 13:53:39	rwxr
uploads		24-03-2025 12:02:50	rwxr
app.py	4 KB	22-03-2025 14:28:07	rw-r
article3.jpg	148 KB	13-02-2025 23:14:41	rw-r

Step 20:

CLI will pop up and open your project in the cli

Command: cd <project folder>



```
 System information as of Tue Mar 25 06:25:59 UTC 2025

  System load:  0.02               Processes:             111
  Usage of /:   22.8% of 19.20GB   Users logged in:       0
  Memory usage: 23%                IPv4 address for ens5: 172.31.26.75
  Swap usage:   0%


Expanded Security Maintenance for Applications is not enabled.

9 updates can be applied immediately.
3 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

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

New release '24.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.


Last login: Mon Mar 24 06:39:28 2025 from 119.235.52.56
ubuntu@ip-172-31-26-75:~$ cd BERT_NER
```

Step 21:

Now install python and pip in “AWS UBUNTU”

Command :

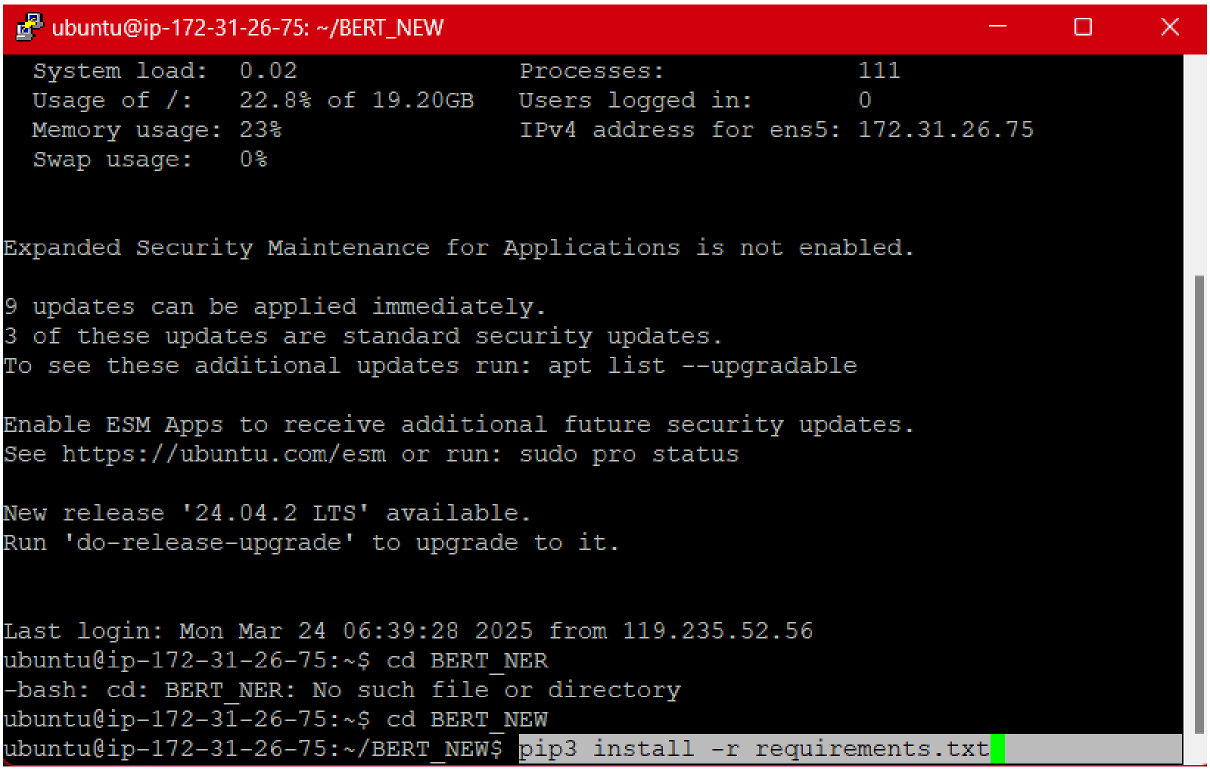
1. sudo apt update && sudo apt upgrade -y
2. sudo apt install python3 python3-pip -y

Now we successfully installed python in our aws server/instance

Step 22 :

Maintain a requirements.txt file in your project folder containing every module/library need to install

Command : pip3 install -r requirements.txt



```
  System load:  0.02               Processes:             111
  Usage of /:   22.8% of 19.20GB   Users logged in:       0
  Memory usage: 23%                IPv4 address for ens5: 172.31.26.75
  Swap usage:   0%


Expanded Security Maintenance for Applications is not enabled.

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

New release '24.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.


Last login: Mon Mar 24 06:39:28 2025 from 119.235.52.56
ubuntu@ip-172-31-26-75:~$ cd BERT_NER
-bash: cd: BERT_NER: No such file or directory
ubuntu@ip-172-31-26-75:~$ cd BERT_NEW
ubuntu@ip-172-31-26-75:~/BERT_NEW$ pip3 install -r requirements.txt
```
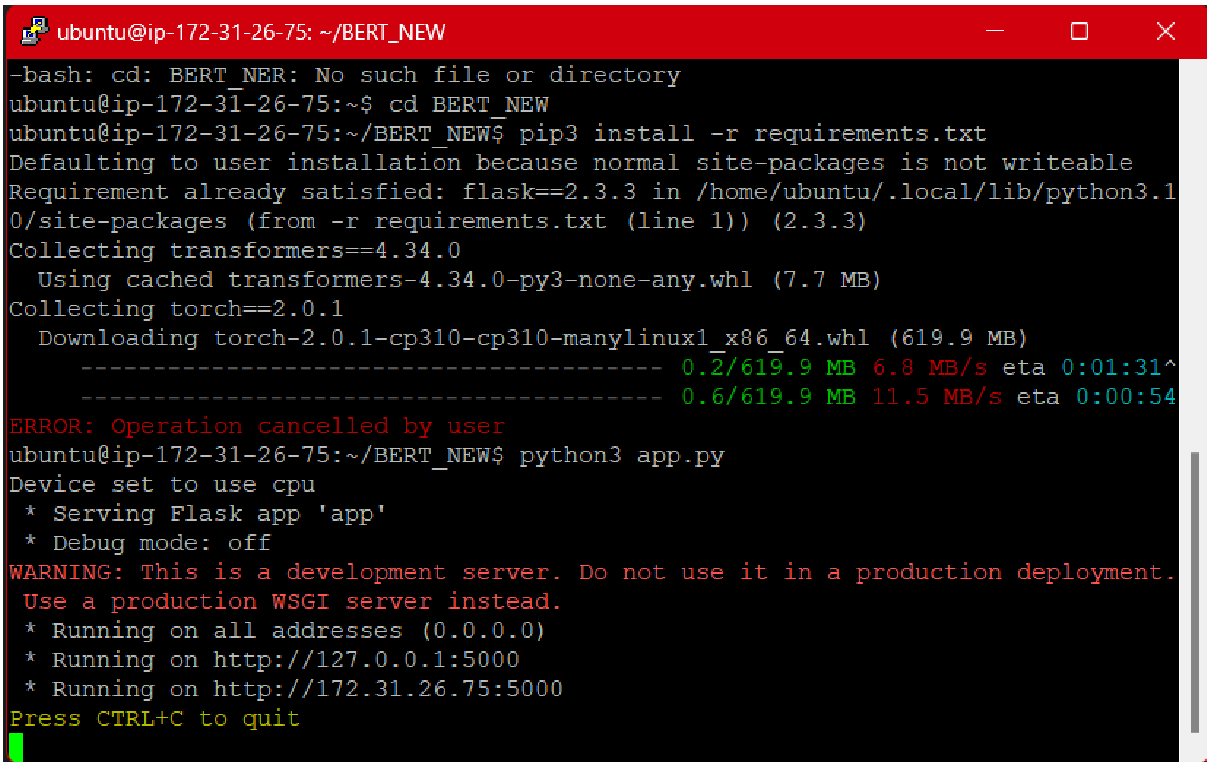

Step 23:

Now enter command : python3 app.py

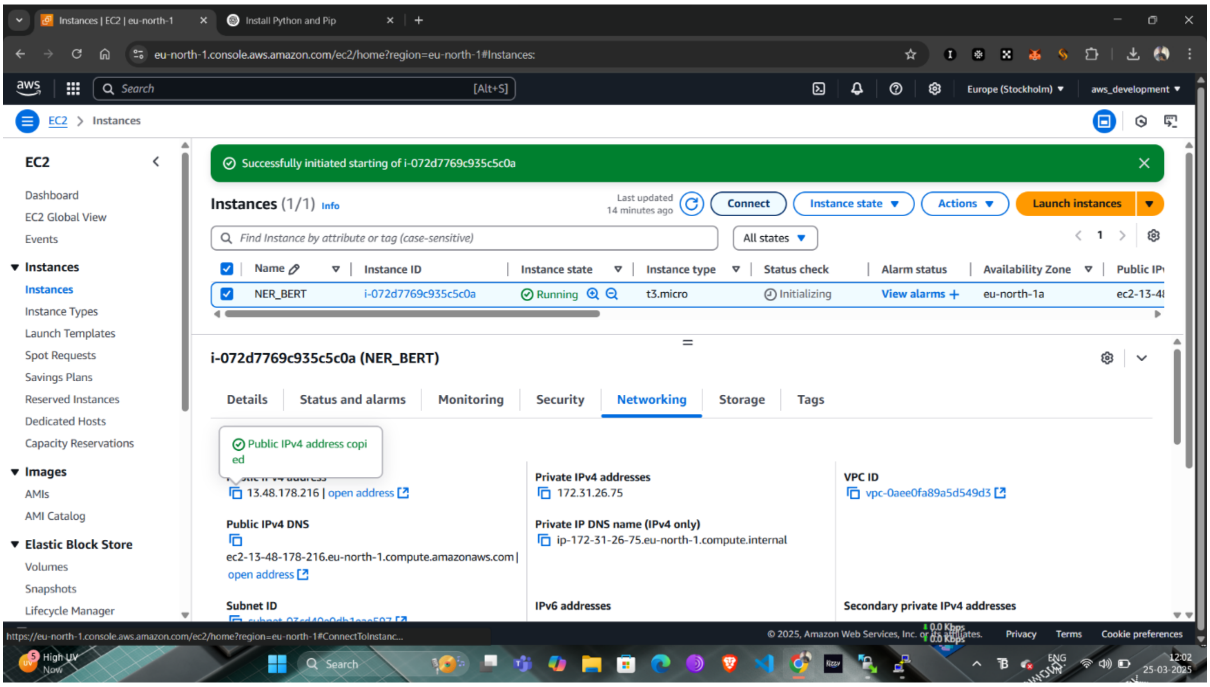
If Every library installed successfully our project start running



```
-bash: cd: BERT_NER: No such file or directory
ubuntu@ip-172-31-26-75:~$ cd BERT_NEW
ubuntu@ip-172-31-26-75:~/BERT_NEW$ pip3 install -r requirements.txt
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: flask==2.3.3 in /home/ubuntu/.local/lib/python3.1
0/site-packages (from -r requirements.txt (line 1)) (2.3.3)
Collecting transformers==4.34.0
  Using cached transformers-4.34.0-py3-none-any.whl (7.7 MB)
Collecting torch==2.0.1
  Downloading torch-2.0.1-cp310-cp310-manylinux1_x86_64.whl (619.9 MB)
     ---------------------------------------- 0.2/619.9 MB 6.8 MB/s eta 0:01:31^
     ---------------------------------------- 0.6/619.9 MB 11.5 MB/s eta 0:00:54
ERROR: Operation cancelled by user
ubuntu@ip-172-31-26-75:~/BERT_NEW$ python3 app.py
Device set to use cpu
 * Serving Flask app 'app'
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment.
 Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:5000
 * Running on http://172.31.26.75:5000
Press CTRL+C to quit
```

Step 24:

Now go to Your instance and Click connect >



Successfully initiated starting of i-072d7769c935c5c0a

Instances (1/1) Info

Last updated 14 minutes ago

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
NER_BERT	i-072d7769c935c5c0a	Running	t3.micro	Initializing	View alarms +	eu-north-1a	ec2-13-4

i-072d7769c935c5c0a (NER_BERT)

Public IPv4 address copied

13.48.178.216 | open address

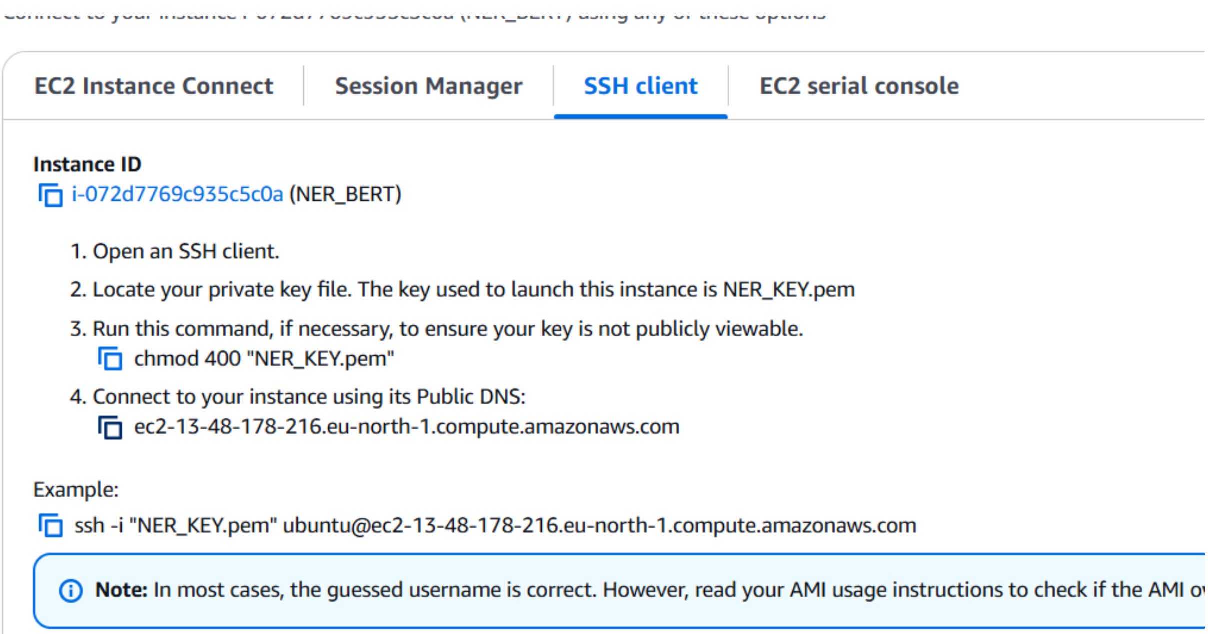
Private IPv4 addresses: 172.31.26.75

VPC ID: vpc-0aee0fa89a5d549d3

Public IPv4 DNS: ec2-13-48-178-216.eu-north-1.compute.amazonaws.com | open address

Private IP DNS name (IPv4 only): ip-172-31-26-75.eu-north-1.compute.internal

Go to SSH CLIENT > Copy the 4 the line link



Connect to your instance i-072d7769c935c5c0a (NER_BERT) using any of these options

Instance ID

i-072d7769c935c5c0a (NER_BERT)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is NER_KEY.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.

```
chmod 400 "NER_KEY.pem"
```

4. Connect to your instance using its Public DNS:

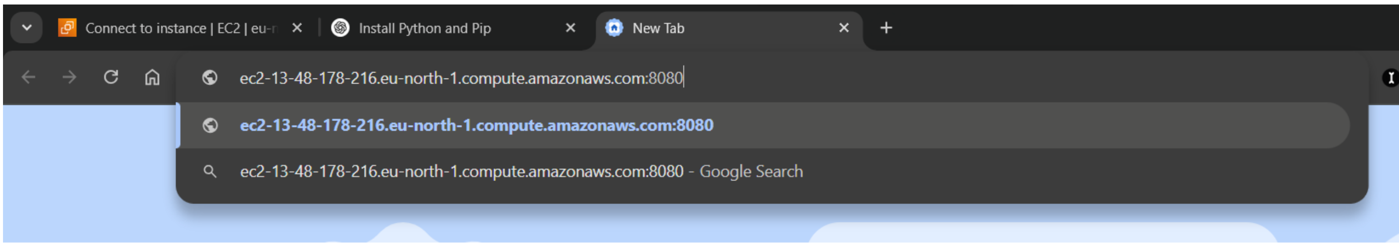
```
ec2-13-48-178-216.eu-north-1.compute.amazonaws.com
```

Example:

```
ssh -i "NER_KEY.pem" ubuntu@ec2-13-48-178-216.eu-north-1.compute.amazonaws.com
```

Note: In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI o

Now add the port number after to the link ":8080"



ec2-13-48-178-216.eu-north-1.compute.amazonaws.com:8080

ec2-13-48-178-216.eu-north-1.compute.amazonaws.com:8080

ec2-13-48-178-216.eu-north-1.compute.amazonaws.com:8080 - Google Search

Our project Runs successfully