Openwebui + Grafana Configuration with EC2

AWS CLOUD

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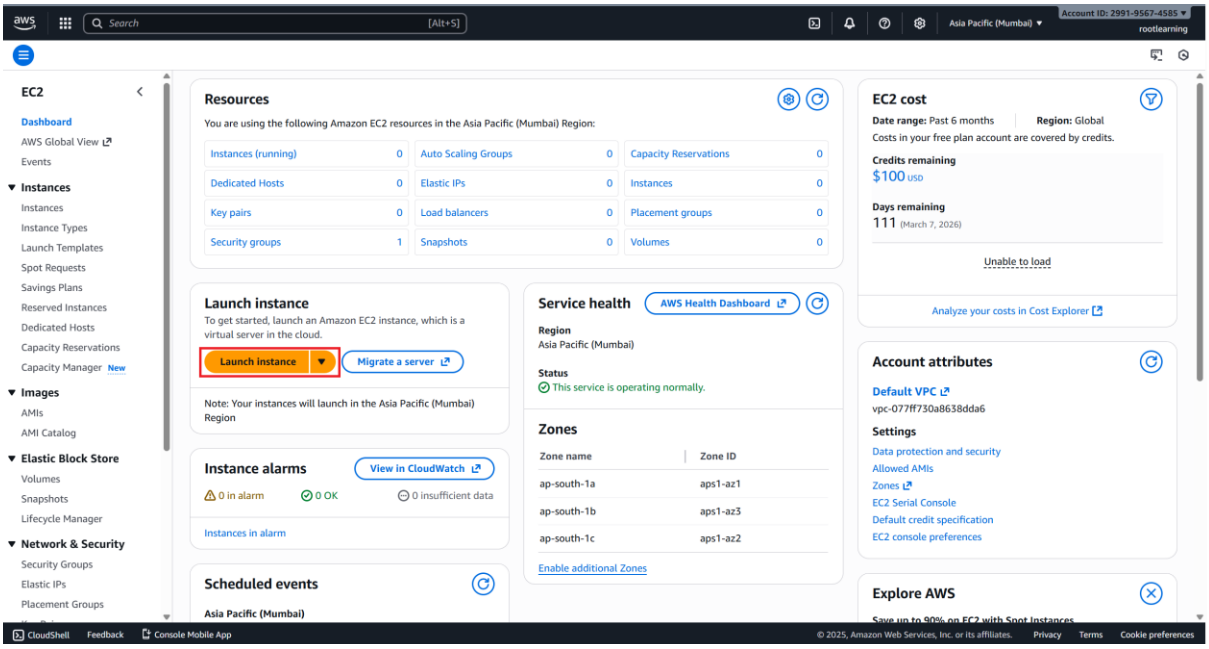
POC | BANGALORE

Step 1: Create an AWS account

Step 2: To look out the AWS Service, find out the EC2 Instance

Step 3: To start a new EC2 resource as an instance. Select a nearest region. (Mumbai)



Resources

You are using the following Amazon EC2 resources in the Asia Pacific (Mumbai) Region:

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

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 Asia Pacific (Mumbai) Region

Instance alarms View in CloudWatch

0 in alarm 0 OK 0 insufficient data

Instances in alarm

Scheduled events

Asia Pacific (Mumbai)

Service health AWS Health Dashboard

Region

Asia Pacific (Mumbai)

Status

This service is operating normally.

Zones

Zone name	Zone ID
ap-south-1a	aps1-az1
ap-south-1b	aps1-az3
ap-south-1c	aps1-az2

Enable additional Zones

EC2 cost

Date range: Past 6 months Region: Global

Costs in your free plan account are covered by credits.

Credits remaining

$100 USD

Days remaining

111 (March 7, 2026)

Unable to load

Analyze your costs in Cost Explorer

Account attributes

Default VPC

vpc-077ff730a8638dda6

Settings

Data protection and security

Allowed AMIs

Zones

EC2 Serial Console

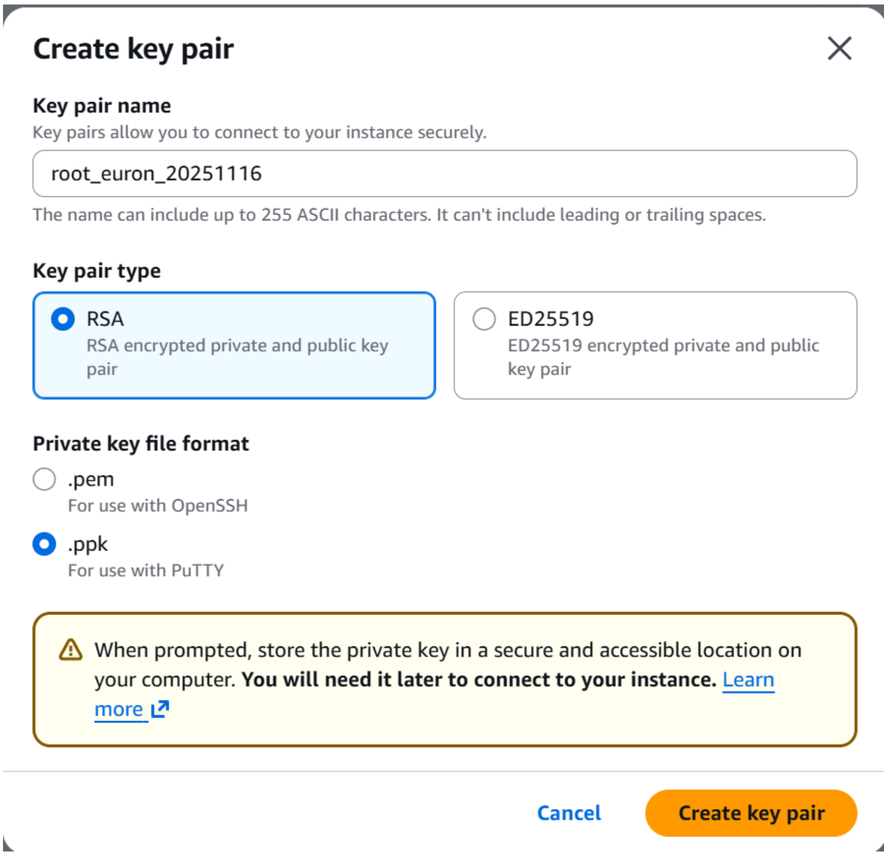
Default credit specification

EC2 console preferences

Explore AWS

Save up to 90% on EC2 with Spot Instances

Step 4: Create a Key pair in the AWS EC2 console. It allows you to generate a secure key pair for connecting to your EC2 instance.



Create key pair

Key pair name

Key pairs allow you to connect to your instance securely.

root_euron_20251116

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

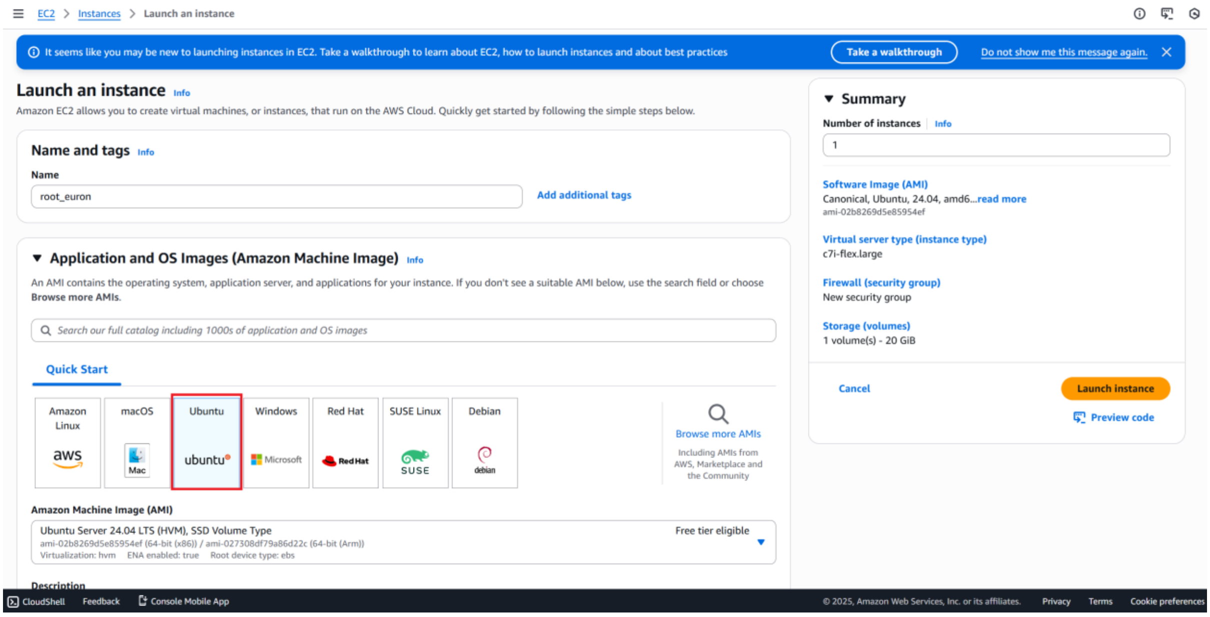
Private key file format

○ .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 5: Create a new EC2 machine.



EC2 > Instances > Launch an instance

It seems like you may be new to launching instances in EC2. Take a walkthrough to learn about EC2, how to launch instances and about best practices

Take a walkthrough | Do not show me this message again.

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: root_euron

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

An AMI contains the operating system, application server, and applications for your instance. If you don't see a suitable AMI below, use the search field or choose Browse more AMIs.

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

Quick Start

Amazon Linux | macOS | Ubuntu | Windows | Red Hat | SUSE Linux | Debian

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-02b8269d5e85954ef (64-bit (x86)) / ami-027308df79a86d22c (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Description

▼ Summary

Number of instances Info: 1

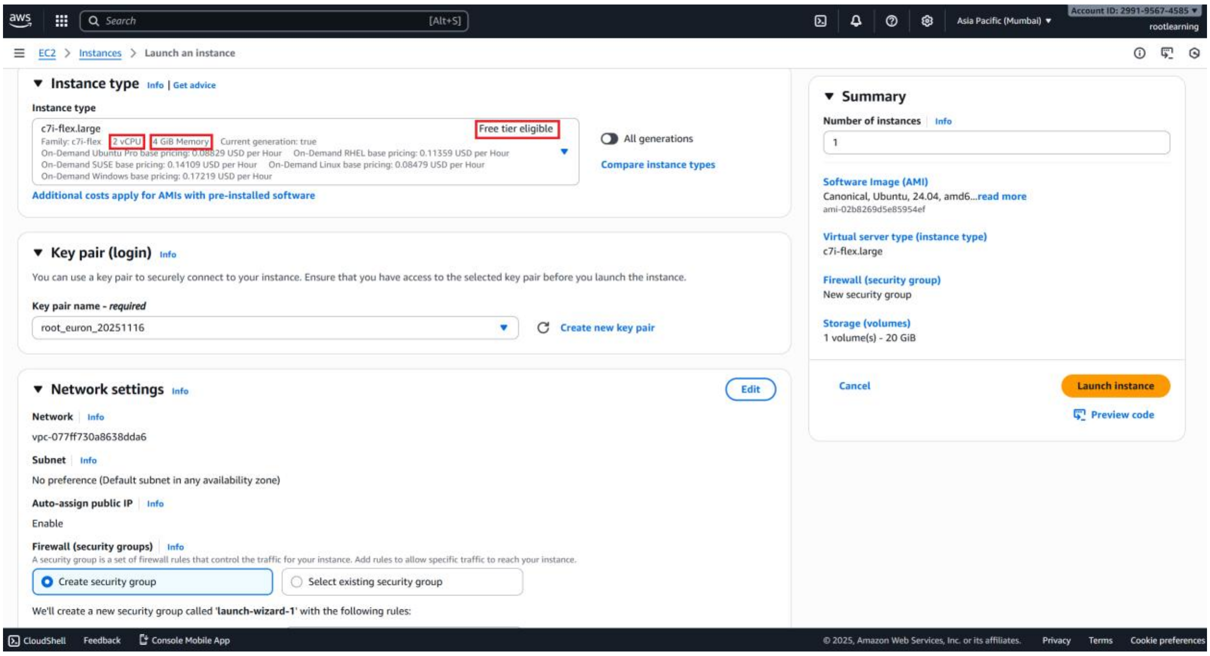
Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-02b8269d5e85954ef

Virtual server type (instance type)
c7i-flex.large

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 20 GiB

Cancel | Launch instance | Preview code



EC2 > Instances > Launch an instance

▼ Instance type Info | Get advice

Instance type

c7i-flex.large — Free tier eligible
Family: c7i-flex 2 vCPU 4 GiB Memory Current generation: true
On-Demand Ubuntu Pro base pricing: 0.08829 USD per Hour On-Demand RHEL base pricing: 0.11359 USD per Hour
On-Demand SUSE base pricing: 0.14109 USD per Hour On-Demand Linux base pricing: 0.08479 USD per Hour
On-Demand Windows base pricing: 0.17219 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.

Key pair name - *required*: root_euron_20251116

Create new key pair

▼ Network settings Info — Edit

Network Info: vpc-077ff730a8638dda6

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-1**' with the following rules:

▼ Summary

Number of instances Info: 1

Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-02b8269d5e85954ef

Virtual server type (instance type)
c7i-flex.large

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 20 GiB

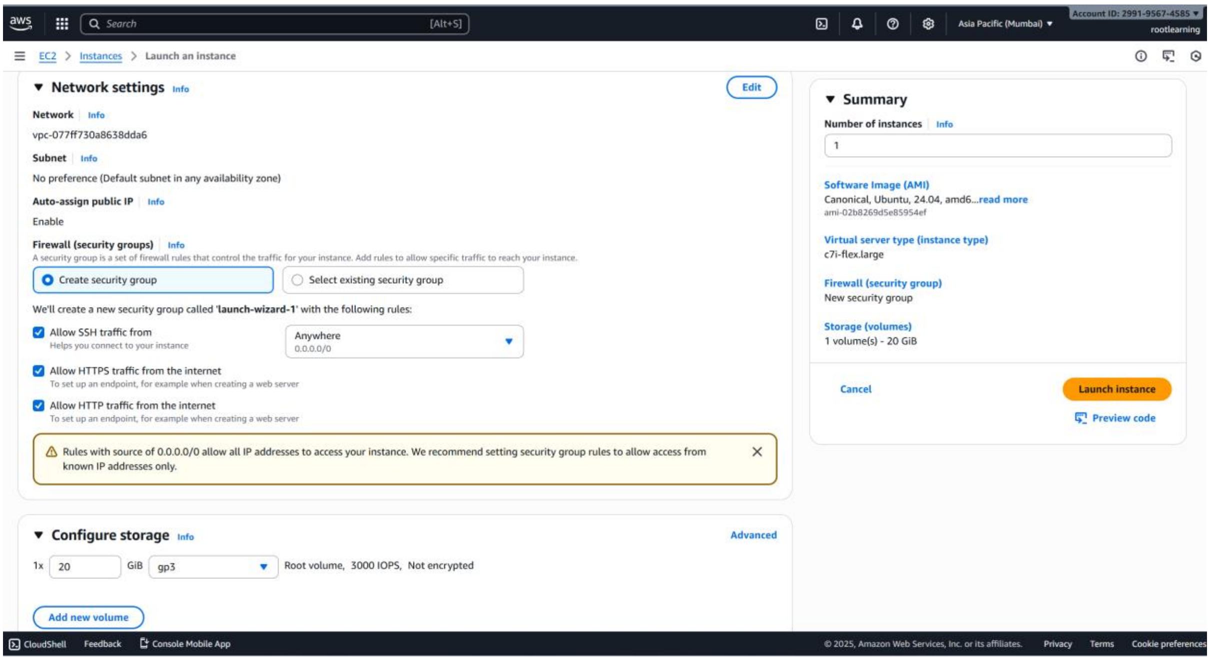
Cancel | Launch instance | Preview code

Notes: Minimum required is a **2-CPU**, **4-GB** memory capacity machine.

Step 6: Network settings and **Configure storage** step of launching an EC2 instance.

- Create security group: Creating a new security group named launch-wizard-1
- Allow SSH traffic from: Anywhere **(0.0.0.0/0)**
- Allow HTTPS traffic from the internet: **Checked**
- Allow HTTPS traffic from the internet: **Checked**
- Configure Storage: **1 X 20 GiB gp3** (General purpose SSD) root volume, 3000 IOPS, not encrypted.

Summary: 1 Instance, Ubuntu 24.04, c7i-flex.large, New security group, with 20 GiB storage.



▼ Network settings

Network
vpc-077ff730a8638dda6

Subnet
No preference (Default subnet in any availability zone)

Auto-assign public IP
Enable

Firewall (security groups)
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-1**' with the following rules:

☑ Allow SSH traffic from — Anywhere 0.0.0.0/0
Helps you connect to your instance

☑ 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.

▼ Configure storage

1x 20 GiB gp3 Root volume, 3000 IOPS, Not encrypted

▼ Summary

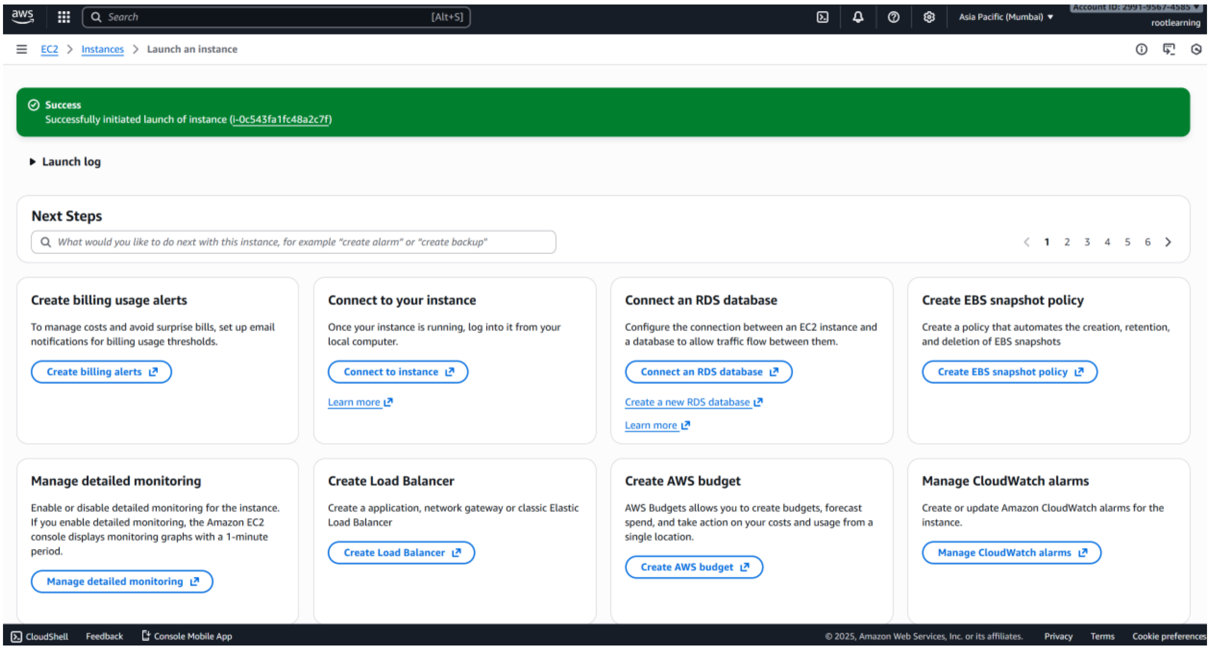
Number of instances
1

Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-02b8269d5e85954ef

Virtual server type (instance type)
c7i-flex.large

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 20 GiB



Success
Successfully initiated launch of instance (i-0c543fa1fc48a2c7f)

Next Steps

What would you like to do next with this instance, for example "create alarm" or "create backup"

Create billing usage alerts
To manage costs and avoid surprise bills, set up email notifications for billing usage thresholds.

Connect to your instance
Once your instance is running, log into it from your local computer.

Connect an RDS database
Configure the connection between an EC2 instance and a database to allow traffic flow between them.

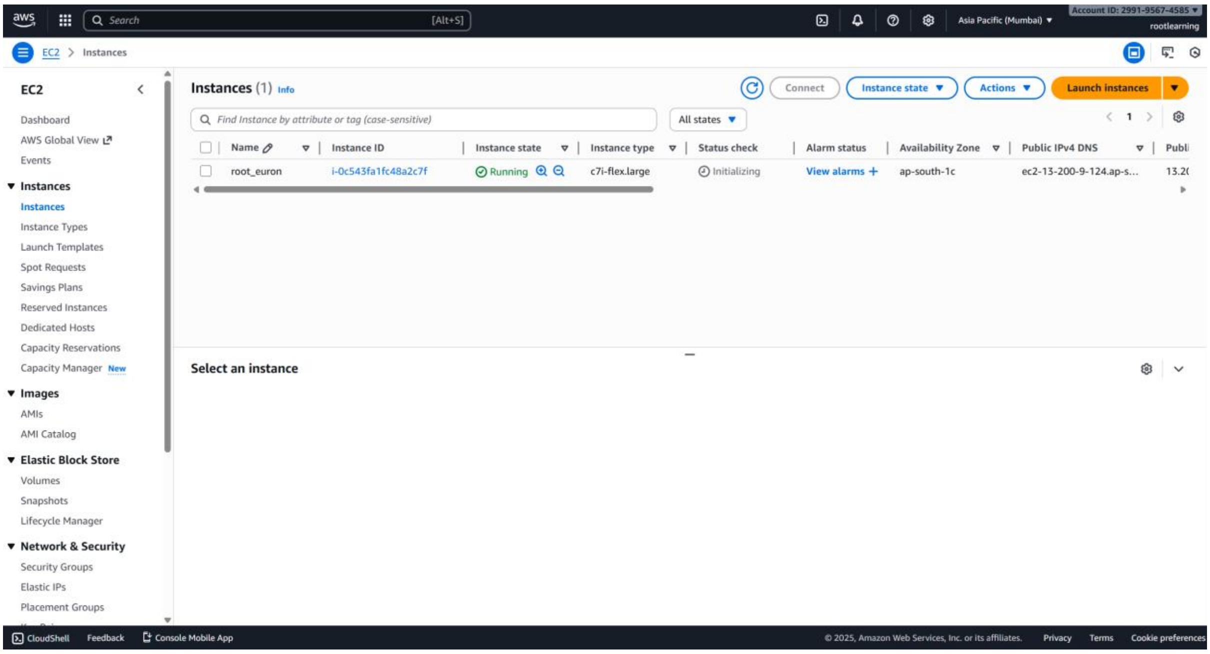
Create EBS snapshot policy
Create a policy that automates the creation, retention, and deletion of EBS snapshots

Manage detailed monitoring
Enable or disable detailed monitoring for the instance. If you enable detailed monitoring, the Amazon EC2 console displays monitoring graphs with a 1-minute period.

Create Load Balancer
Create a application, network gateway or classic Elastic Load Balancer

Create AWS budget
AWS Budgets allows you to create budgets, forecast spend, and take action on your costs and usage from a single location.

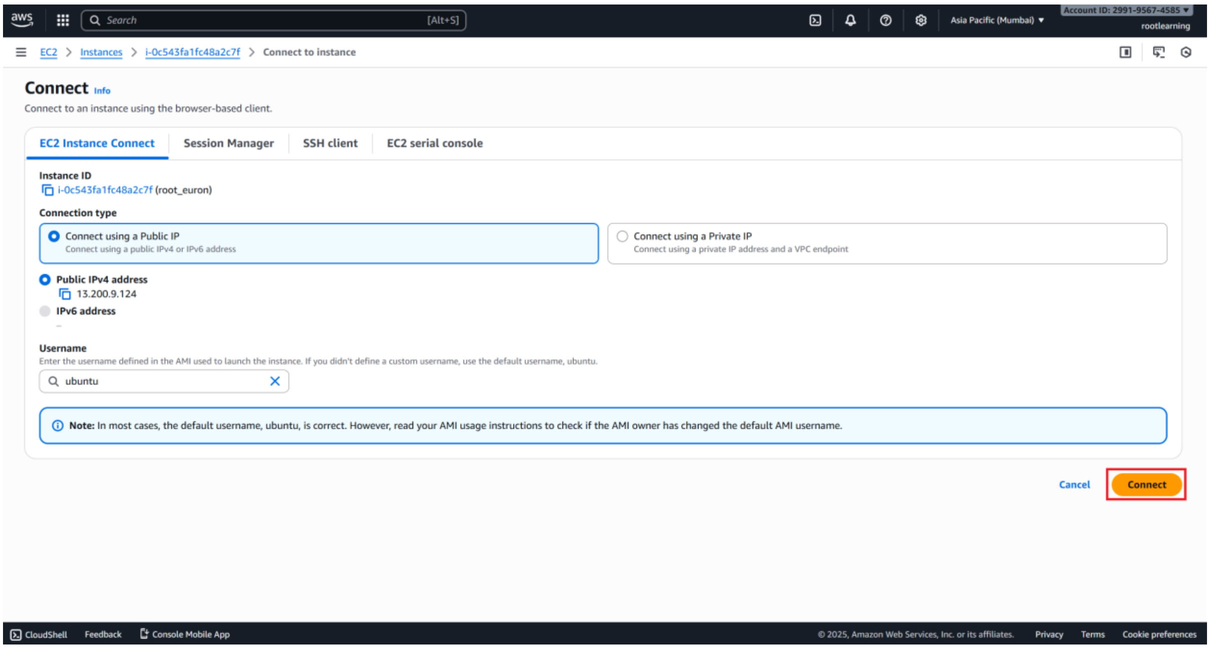
Manage CloudWatch alarms
Create or update Amazon CloudWatch alarms for the instance.



Instances (1) Info

□	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Publi
□	root_euron	i-0c543fa1fc48a2c7f	✓ Running	c7i-flex.large	Initializing	View alarms +	ap-south-1c	ec2-13-200-9-124.ap-s...	13.2(

Select an instance



Connect Info

Connect to an instance using the browser-based client.

Instance ID
i-0c543fa1fc48a2c7f (root_euron)

Connection type
● Connect using a Public IP
Connect using a public IPv4 or IPv6 address
○ Connect using a Private IP
Connect using a private IP address and a VPC endpoint

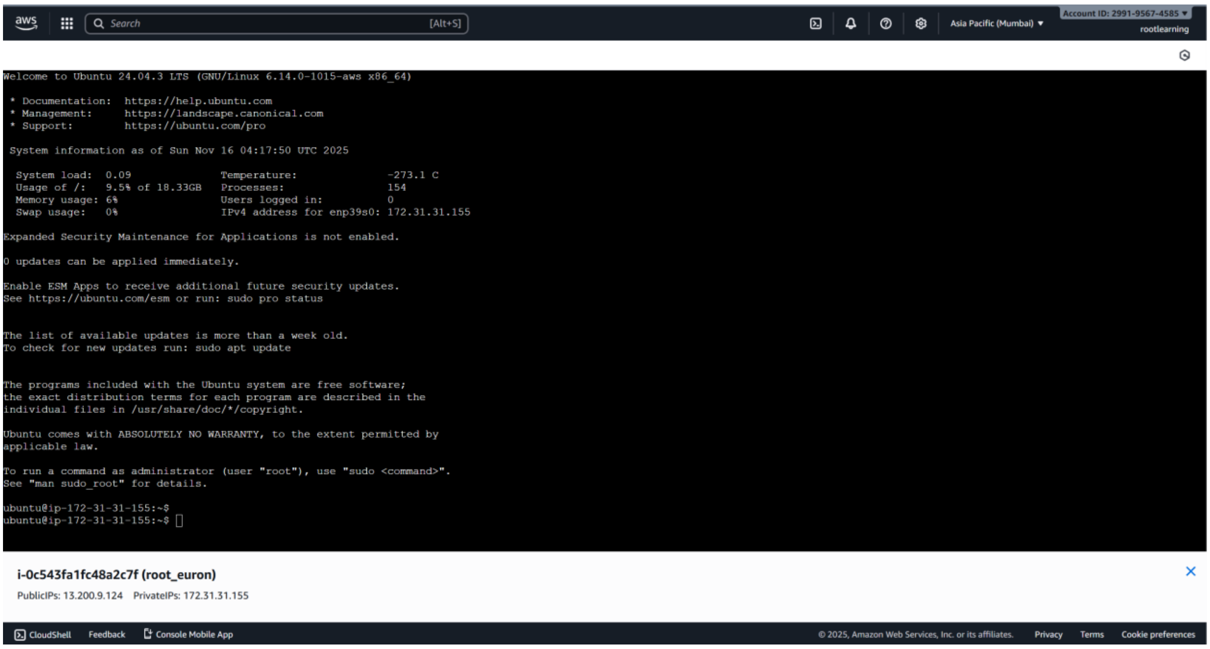
● Public IPv4 address
13.200.9.124
○ IPv6 address
–

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.
ubuntu

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 7: Setup the configuration

# update : sudo apt update && sudo apt upgrade -y



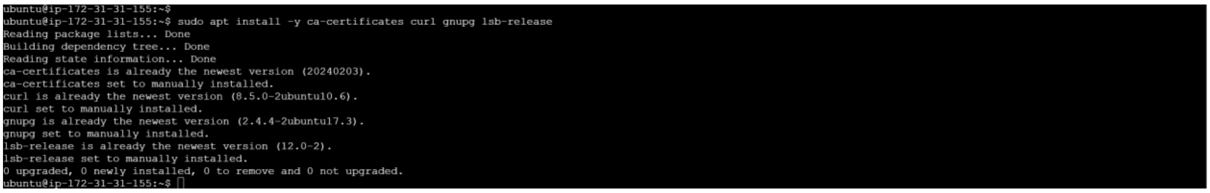
```
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1015-aws x86_64)

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

 System information as of Sun Nov 16 04:17:50 UTC 2025

  System load:  0.09               Temperature:              -273.1 C
  Usage of /:   9.5% of 18.33GB   Processes:                154
  Memory usage: 6%                 Users logged in:          0
  Swap usage:   0%                 IPv4 address for enp39s0: 172.31.31.155

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 list of available updates is more than a week old.
To check for new updates run: sudo apt update


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-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ 
```

i-0c543fa1fc48a2c7f (root_euron)

PublicIPs: 13.200.9.124   PrivateIPs: 172.31.31.155

# Install dependencies

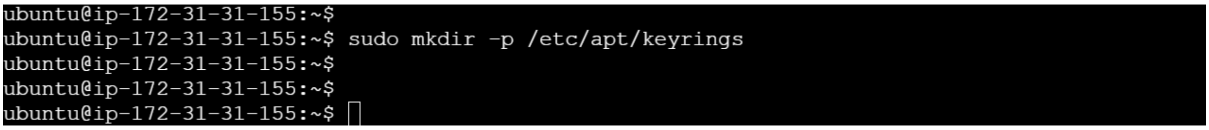
cmd: sudo apt install –y ca-certificates curl gnupg lsb-release



```
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo apt install -y ca-certificates curl gnupg lsb-release
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ca-certificates is already the newest version (20240203).
ca-certificates set to manually installed.
curl is already the newest version (8.5.0-2ubuntu10.6).
curl set to manually installed.
gnupg is already the newest version (2.4.4-2ubuntu17.3).
gnupg set to manually installed.
lsb-release is already the newest version (12.0-2).
lsb-release set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-31-155:~$ 
```

# Add docker official GPG and repo

cmd: sudo mkdir –p /etc/apt/keyrings



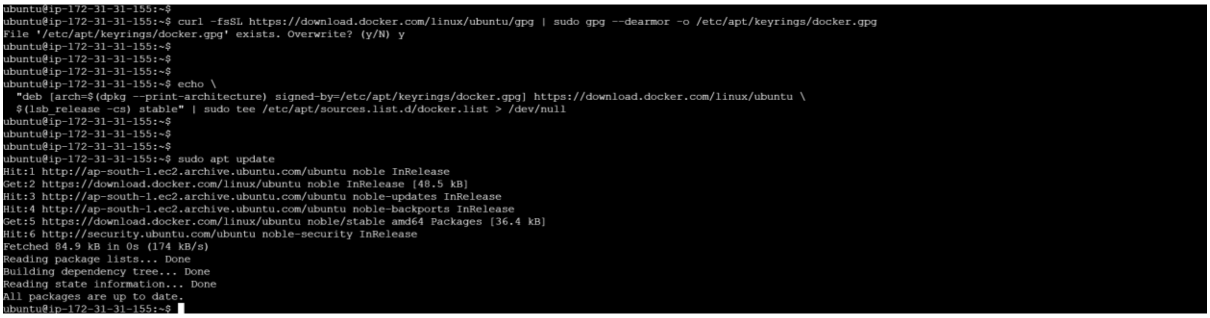
```
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo mkdir -p /etc/apt/keyrings
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ 
```

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg

echo \

"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu \

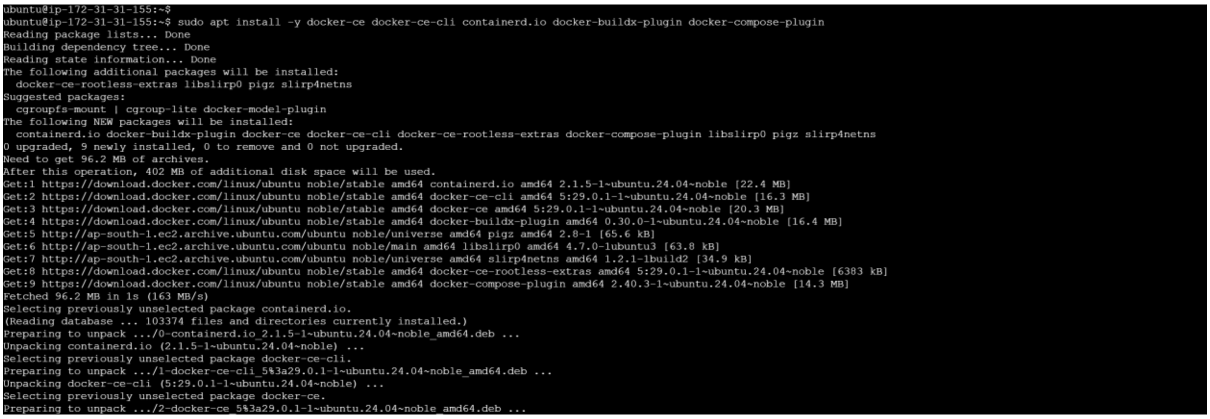
$(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null



```
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg
File '/etc/apt/keyrings/docker.gpg' exists. Overwrite? (y/N) y
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu \
  $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo apt update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 https://download.docker.com/linux/ubuntu noble InRelease [48.5 kB]
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Get:5 https://download.docker.com/linux/ubuntu noble/stable amd64 Packages [36.4 kB]
Hit:6 http://security.ubuntu.com/ubuntu noble-security InRelease
Fetched 84.9 kB in 0s (174 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
ubuntu@ip-172-31-31-155:~$
```

sudo apt update

sudo apt install -y docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin



```
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo apt install -y docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  docker-ce-rootless-extras libslirp0 pigz slirp4netns
Suggested packages:
  cgroupfs-mount | cgroup-lite docker-model-plugin
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli docker-ce-rootless-extras docker-compose-plugin libslirp0 pigz slirp4netns
0 upgraded, 9 newly installed, 0 to remove and 0 not upgraded.
Need to get 96.2 MB of archives.
After this operation, 402 MB of additional disk space will be used.
Get:1 https://download.docker.com/linux/ubuntu noble/stable amd64 containerd.io amd64 2.1.5-1~ubuntu.24.04~noble [22.4 MB]
Get:2 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-cli amd64 5:29.0.1-1~ubuntu.24.04~noble [16.3 MB]
Get:3 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce amd64 5:29.0.1-1~ubuntu.24.04~noble [20.3 MB]
Get:4 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-buildx-plugin amd64 0.30.0-1~ubuntu.24.04~noble [16.4 MB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 pigz amd64 2.8-1 [65.6 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 libslirp0 amd64 4.7.0-1ubuntu3 [63.8 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 slirp4netns amd64 1.2.1-1build2 [34.9 kB]
Get:8 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-rootless-extras amd64 5:29.0.1-1~ubuntu.24.04~noble [6383 kB]
Get:9 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-compose-plugin amd64 2.40.3-1~ubuntu.24.04~noble [14.3 MB]
Fetched 96.2 MB in 1s (163 MB/s)
Selecting previously unselected package containerd.io.
(Reading database ... 103374 files and directories currently installed.)
Preparing to unpack .../0-containerd.io_2.1.5-1~ubuntu.24.04~noble_amd64.deb ...
Unpacking containerd.io (2.1.5-1~ubuntu.24.04~noble) ...
Selecting previously unselected package docker-ce-cli.
Preparing to unpack .../1-docker-ce-cli_5%3a29.0.1-1~ubuntu.24.04~noble_amd64.deb ...
Unpacking docker-ce-cli (5:29.0.1-1~ubuntu.24.04~noble) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../2-docker-ce_5%3a29.0.1-1~ubuntu.24.04~noble_amd64.deb ...
```

# Add Ubuntu user to docker group to avoid sudo for docker

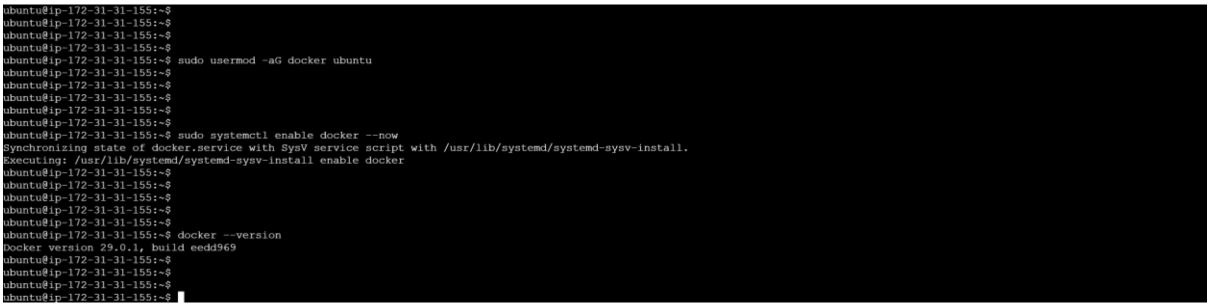
cmd: sudo usermod –aG docker Ubuntu

# Enable & start docker

cmd: sudo systemctl enable docker –now

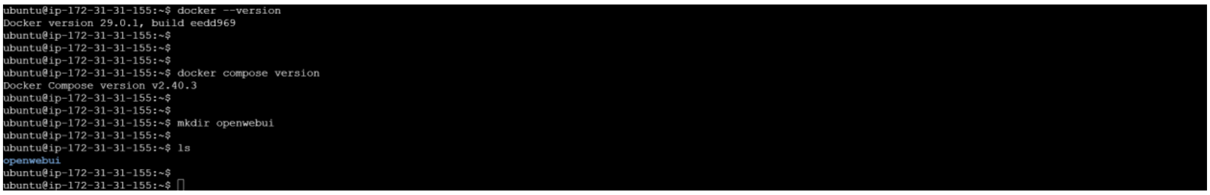
# Verify the docker version

cmd: docker –version



```
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo usermod -aG docker ubuntu
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo systemctl enable docker --now
Synchronizing state of docker.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable docker
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ docker --version
Docker version 29.0.1, build eedd969
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
```

cmd: docker compose version



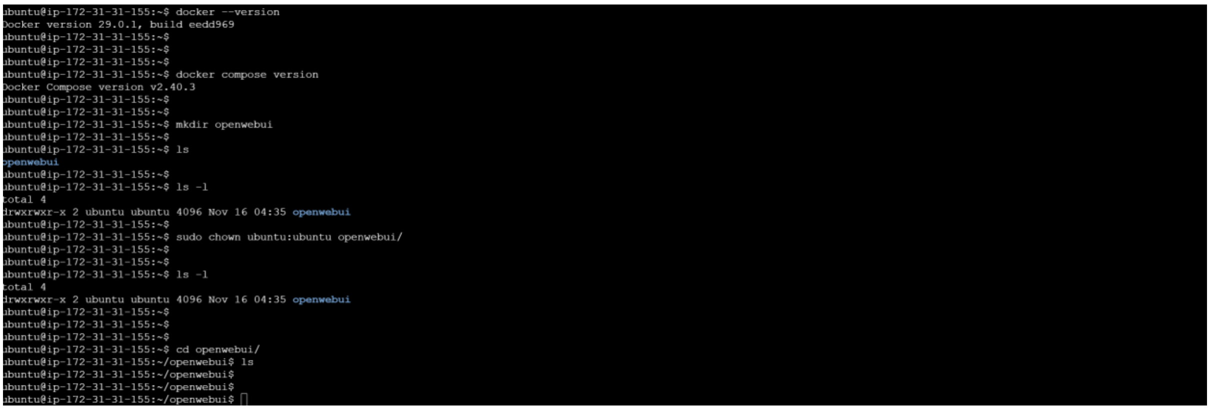
```
ubuntu@ip-172-31-31-155:~$ docker --version
Docker version 29.0.1, build eedd969
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ docker compose version
Docker Compose version v2.40.3
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ mkdir openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ ls
openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
```

# After system installation and docker setup:

cmd: mkdir openwebui

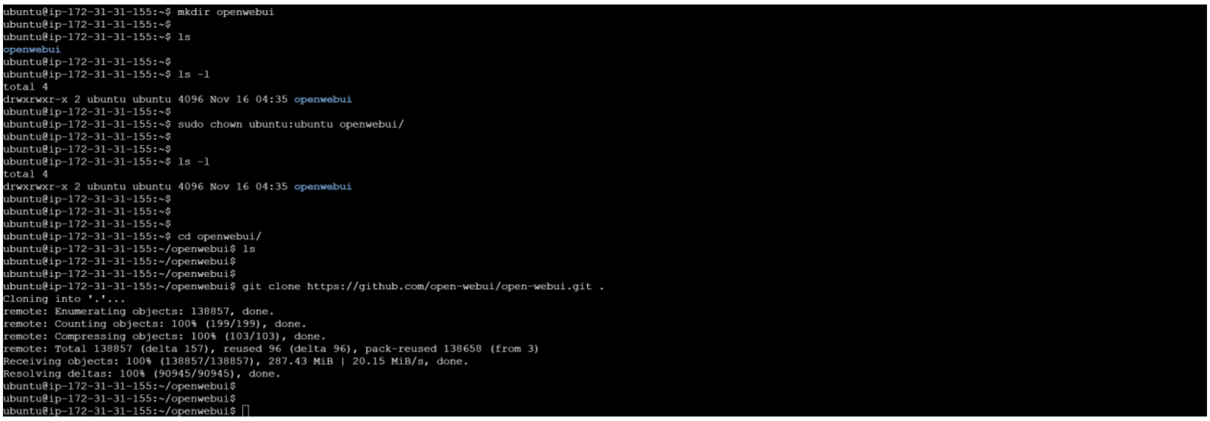
cmd: sudo chown Ubuntu:Ubuntu openwebui

cmd: cd openwebui



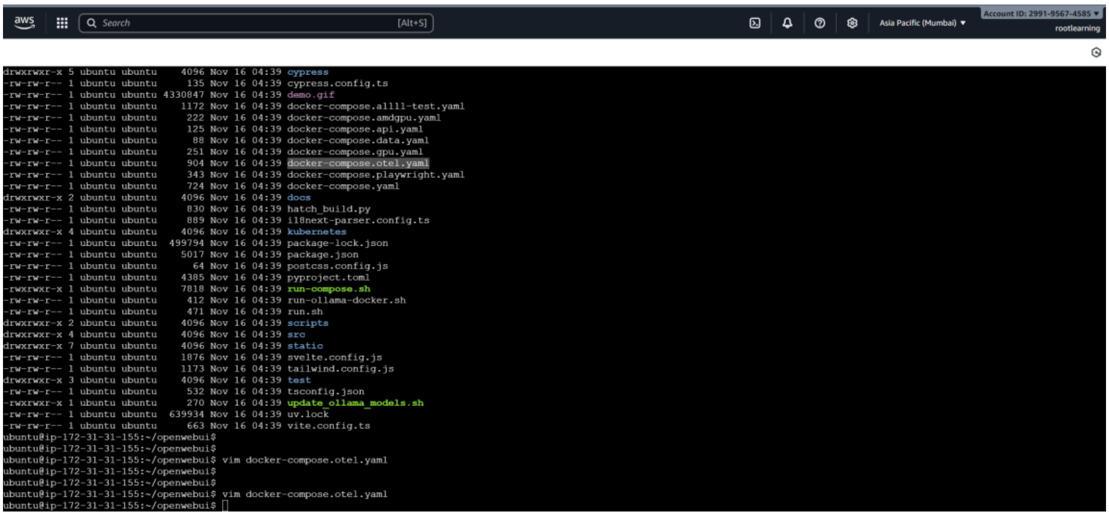
```
ubuntu@ip-172-31-31-155:~$ docker --version
Docker version 29.0.1, build eedd969
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ docker compose version
Docker Compose version v2.40.3
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ mkdir openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ ls
openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ ls -l
total 4
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 16 04:35 openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo chown ubuntu:ubuntu openwebui/
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ ls -l
total 4
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 16 04:35 openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ cd openwebui/
ubuntu@ip-172-31-31-155:~/openwebui$ ls
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
```

cmd: git clone https://github.com/open-webui/open-webui.git



```
ubuntu@ip-172-31-31-155:~$ mkdir openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ ls
openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ ls -l
total 4
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 16 04:35 openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ sudo chown ubuntu:ubuntu openwebui/
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ ls -l
total 4
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 16 04:35 openwebui
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$
ubuntu@ip-172-31-31-155:~$ cd openwebui/
ubuntu@ip-172-31-31-155:~/openwebui$ ls
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ git clone https://github.com/open-webui/open-webui.git .
Cloning into '.'...
remote: Enumerating objects: 138857, done.
remote: Counting objects: 100% (199/199), done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 138857 (delta 157), reused 96 (delta 96), pack-reused 138658 (from 3)
Receiving objects: 100% (138857/138857), 287.43 MiB | 20.15 MiB/s, done.
Resolving deltas: 100% (90945/90945), done.
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
```

cmd: ls



```
drwxrwxr-x 5 ubuntu ubuntu    4096 Nov 16 04:39 cypress
-rw-rw-r-- 1 ubuntu ubuntu     135 Nov 16 04:39 cypress.config.ts
-rw-rw-r-- 1 ubuntu ubuntu 4330847 Nov 16 04:39 demo.gif
-rw-rw-r-- 1 ubuntu ubuntu    1172 Nov 16 04:39 docker-compose.allll-test.yaml
-rw-rw-r-- 1 ubuntu ubuntu     222 Nov 16 04:39 docker-compose.amdgpu.yaml
-rw-rw-r-- 1 ubuntu ubuntu     125 Nov 16 04:39 docker-compose.api.yaml
-rw-rw-r-- 1 ubuntu ubuntu      88 Nov 16 04:39 docker-compose.data.yaml
-rw-rw-r-- 1 ubuntu ubuntu     251 Nov 16 04:39 docker-compose.gpu.yaml
-rw-rw-r-- 1 ubuntu ubuntu     904 Nov 16 04:39 docker-compose.otel.yaml
-rw-rw-r-- 1 ubuntu ubuntu     343 Nov 16 04:39 docker-compose.playwright.yaml
-rw-rw-r-- 1 ubuntu ubuntu     724 Nov 16 04:39 docker-compose.yaml
drwxrwxr-x 2 ubuntu ubuntu    4096 Nov 16 04:39 docs
-rw-rw-r-- 1 ubuntu ubuntu     830 Nov 16 04:39 hatch_build.py
-rw-rw-r-- 1 ubuntu ubuntu     889 Nov 16 04:39 i18next-parser.config.ts
drwxrwxr-x 4 ubuntu ubuntu    4096 Nov 16 04:39 kubernetes
-rw-rw-r-- 1 ubuntu ubuntu  499794 Nov 16 04:39 package-lock.json
-rw-rw-r-- 1 ubuntu ubuntu    5017 Nov 16 04:39 package.json
-rw-rw-r-- 1 ubuntu ubuntu      64 Nov 16 04:39 postcss.config.js
-rw-rw-r-- 1 ubuntu ubuntu    4385 Nov 16 04:39 pyproject.toml
-rwxrwxr-x 1 ubuntu ubuntu    7818 Nov 16 04:39 run-compose.sh
-rw-rw-r-- 1 ubuntu ubuntu     412 Nov 16 04:39 run-ollama-docker.sh
-rw-rw-r-- 1 ubuntu ubuntu     471 Nov 16 04:39 run.sh
drwxrwxr-x 2 ubuntu ubuntu    4096 Nov 16 04:39 scripts
drwxrwxr-x 4 ubuntu ubuntu    4096 Nov 16 04:39 src
drwxrwxr-x 7 ubuntu ubuntu    4096 Nov 16 04:39 static
-rw-rw-r-- 1 ubuntu ubuntu    1876 Nov 16 04:39 svelte.config.js
-rw-rw-r-- 1 ubuntu ubuntu    1173 Nov 16 04:39 tailwind.config.js
drwxrwxr-x 3 ubuntu ubuntu    4096 Nov 16 04:39 test
-rw-rw-r-- 1 ubuntu ubuntu     532 Nov 16 04:39 tsconfig.json
-rwxrwxr-x 1 ubuntu ubuntu     270 Nov 16 04:39 update_ollama_models.sh
-rw-rw-r-- 1 ubuntu ubuntu  639934 Nov 16 04:39 uv.lock
-rw-rw-r-- 1 ubuntu ubuntu     663 Nov 16 04:39 vite.config.ts
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ vim docker-compose.otel.yaml
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ vim docker-compose.otel.yaml
ubuntu@ip-172-31-31-155:~/openwebui$ 
```

cmd: Press Esc button -> Press 'i' key should change to Insert mode.

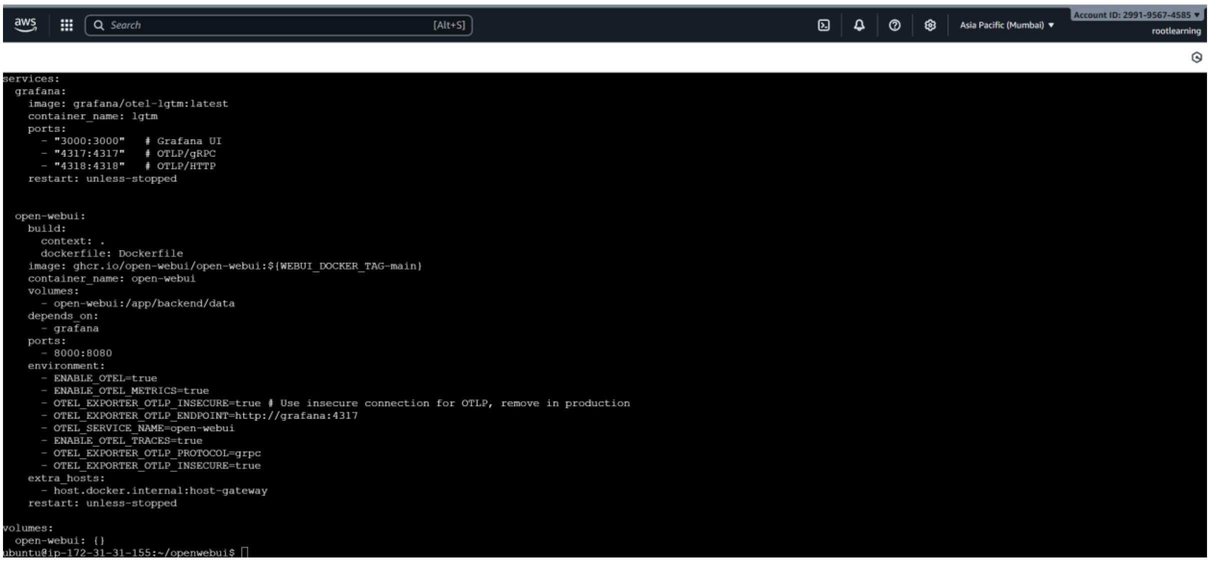
Make one edit for **open-webui port**

- 8000:8000 (exposing 8000 port for openwebui)

Add **environment** variable

- ENABLE_OTEL_TRACES=true (to capture server traces)
- OTEL_EXPORTER_OTLP_PROTOCOL=grpc (additionally added this line in the environment)
- OTEL_EXPORTER_OTLP_INSECURE=true (additionally added this line in the environment)

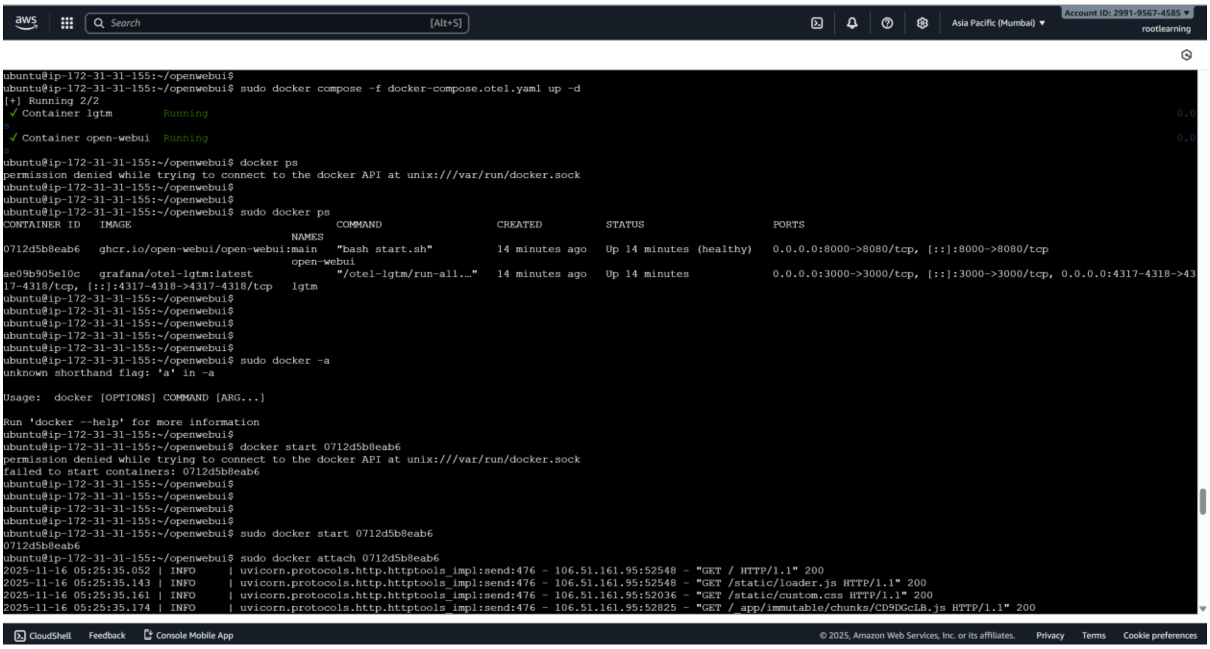
cmd: Press Esc button -> In console :wq! (save modify)



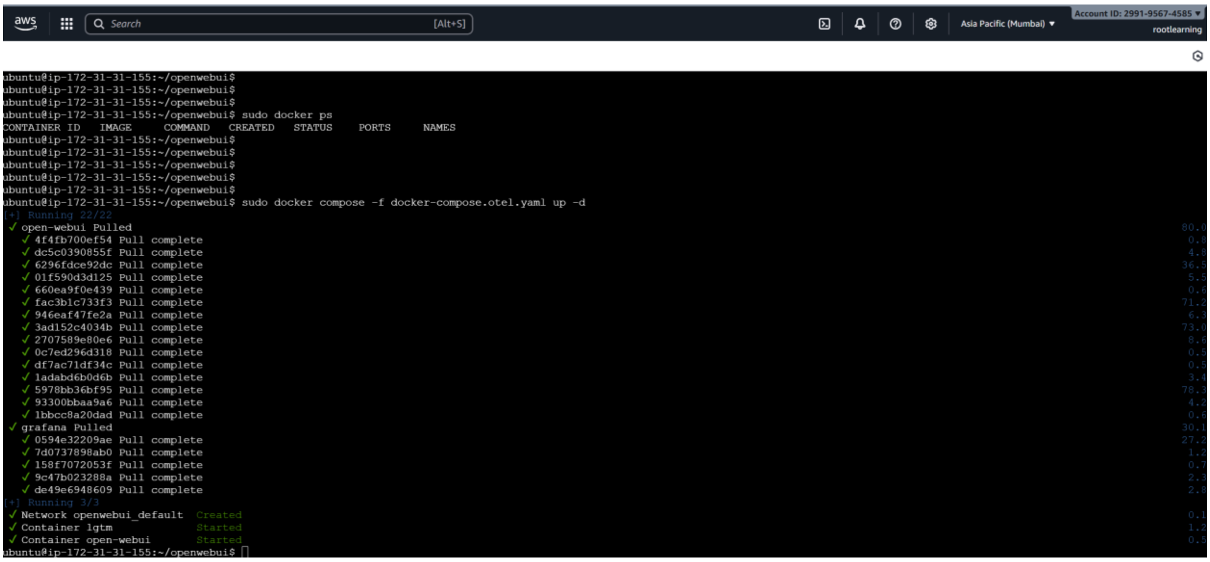
```
services:
  grafana:
    image: grafana/otel-lgtm:latest
    container_name: lgtm
    ports:
      - "3000:3000"    # Grafana UI
      - "4317:4317"    # OTLP/gRPC
      - "4318:4318"    # OTLP/HTTP
    restart: unless-stopped


  open-webui:
    build:
      context: .
      dockerfile: Dockerfile
    image: ghcr.io/open-webui/open-webui:${WEBUI_DOCKER_TAG-main}
    container_name: open-webui
    volumes:
      - open-webui:/app/backend/data
    depends_on:
      - grafana
    ports:
      - 8000:8080
    environment:
      - ENABLE_OTEL=true
      - ENABLE_OTEL_METRICS=true
      - OTEL_EXPORTER_OTLP_INSECURE=true # Use insecure connection for OTLP, remove in production
      - OTEL_EXPORTER_OTLP_ENDPOINT=http://grafana:4317
      - OTEL_SERVICE_NAME=open-webui
      - ENABLE_OTEL_TRACES=true
      - OTEL_EXPORTER_OTLP_PROTOCOL=grpc
      - OTEL_EXPORTER_OTLP_INSECURE=true
    extra_hosts:
      - host.docker.internal:host-gateway
    restart: unless-stopped

volumes:
  open-webui: {}
ubuntu@ip-172-31-31-155:~/openwebui$ 
```

Run openwebui now using docker compose

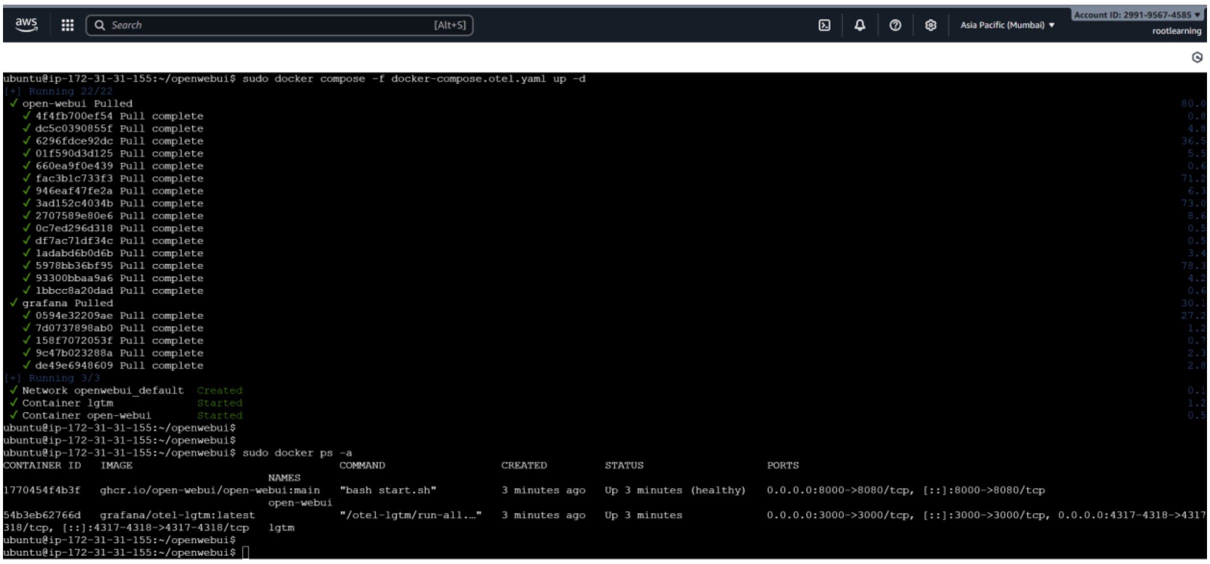
sudo docker compose –f docker-compose.otel.yaml up -d



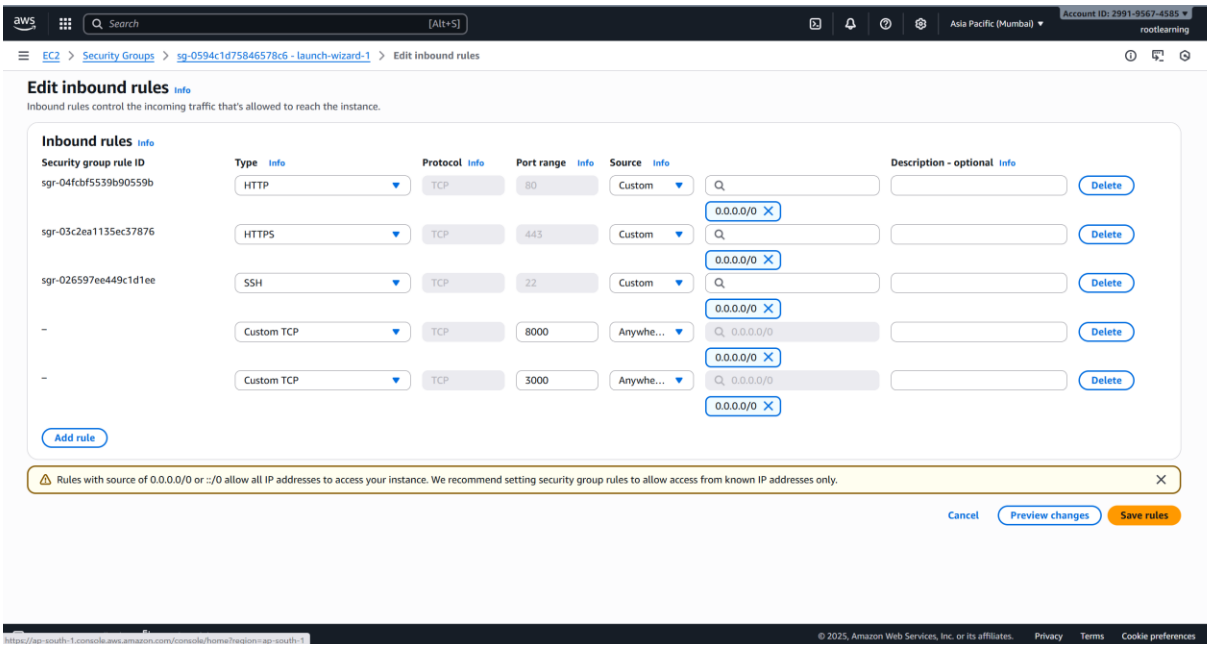
```
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker compose -f docker-compose.otel.yaml up -d
[+] Running 2/2
 ✓ Container lgtm          Running                                                                                                                     0.0
s
 ✓ Container open-webui    Running                                                                                                                     0.0
s
ubuntu@ip-172-31-31-155:~/openwebui$ docker ps
permission denied while trying to connect to the docker API at unix:///var/run/docker.sock
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED          STATUS                    PORTS
                                        NAMES
0712d5b8eab6   ghcr.io/open-webui/open-webui:main   "bash start.sh"          14 minutes ago   Up 14 minutes (healthy)   0.0.0.0:8000->8080/tcp, [::]:8000->8080/tcp
                                        open-webui
ae09b905e10c   grafana/otel-lgtm:latest             "/otel-lgtm/run-all.…"   14 minutes ago   Up 14 minutes             0.0.0.0:3000->3000/tcp, [::]:3000->3000/tcp, 0.0.0.0:4317-4318->43
17-4318/tcp, [::]:4317-4318->4317-4318/tcp   lgtm
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker -a
unknown shorthand flag: 'a' in -a

Usage:  docker [OPTIONS] COMMAND [ARG...]

Run 'docker --help' for more information
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ docker start 0712d5b8eab6
permission denied while trying to connect to the docker API at unix:///var/run/docker.sock
failed to start containers: 0712d5b8eab6
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker start 0712d5b8eab6
0712d5b8eab6
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker attach 0712d5b8eab6
2025-11-16 05:25:35.052 | INFO     | uvicorn.protocols.http.httptools_impl:send:476 - 106.51.161.95:52548 - "GET / HTTP/1.1" 200
2025-11-16 05:25:35.143 | INFO     | uvicorn.protocols.http.httptools_impl:send:476 - 106.51.161.95:52548 - "GET /static/loader.js HTTP/1.1" 200
2025-11-16 05:25:35.161 | INFO     | uvicorn.protocols.http.httptools_impl:send:476 - 106.51.161.95:52036 - "GET /static/custom.css HTTP/1.1" 200
2025-11-16 05:25:35.174 | INFO     | uvicorn.protocols.http.httptools_impl:send:476 - 106.51.161.95:52825 - "GET /_app/immutable/chunks/CD9DGcLB.js HTTP/1.1" 200
```



```
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker compose -f docker-compose.otel.yaml up -d
[+] Running 22/22
 ✓ open-webui Pulled                                                                                                                                  80.0
   ✓ 4f4fb700ef54 Pull complete                                                                                                                        0.8
   ✓ dc5c0390855f Pull complete                                                                                                                        4.8
   ✓ 6296fdce92dc Pull complete                                                                                                                       36.5
   ✓ 01f590d3d125 Pull complete                                                                                                                        5.5
   ✓ 660ea9f0e439 Pull complete                                                                                                                        0.6
   ✓ fac3b1c733f3 Pull complete                                                                                                                       71.2
   ✓ 946eaf47fe2a Pull complete                                                                                                                        6.3
   ✓ 3ad152c4034b Pull complete                                                                                                                       73.0
   ✓ 2707589e80e6 Pull complete                                                                                                                        8.6
   ✓ 0c7ed296d318 Pull complete                                                                                                                        0.5
   ✓ df7ac71df34c Pull complete                                                                                                                        0.5
   ✓ 1adabd6b0d6b Pull complete                                                                                                                        3.4
   ✓ 5978bb36bf95 Pull complete                                                                                                                       78.3
   ✓ 93300bbaa9a6 Pull complete                                                                                                                        4.2
   ✓ 1bbcc8a20dad Pull complete                                                                                                                        0.6
 ✓ grafana Pulled                                                                                                                                     30.1
   ✓ 0594e32209ae Pull complete                                                                                                                       27.2
   ✓ 7d0737898ab0 Pull complete                                                                                                                        1.2
   ✓ 158f7072053f Pull complete                                                                                                                        0.7
   ✓ 9c47b023288a Pull complete                                                                                                                        2.3
   ✓ de49e6948609 Pull complete                                                                                                                        2.8
[+] Running 3/3
 ✓ Network openwebui_default  Created                                                                                                                  0.1
 ✓ Container lgtm             Started                                                                                                                  1.2
 ✓ Container open-webui       Started                                                                                                                  0.5
ubuntu@ip-172-31-31-155:~/openwebui$ ▯
```



```
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker compose -f docker-compose.otel.yaml up -d
[+] Running 22/22
 ✓ open-webui Pulled
   ✓ 4f4fb700ef54 Pull complete
   ✓ dc5c0390855f Pull complete
   ✓ 6296fdce92dc Pull complete
   ✓ 01f590d3d125 Pull complete
   ✓ 660ea9f0e439 Pull complete
   ✓ fac3b1c733f3 Pull complete
   ✓ 946eaf47fe2a Pull complete
   ✓ 3ad152c4034b Pull complete
   ✓ 2707589e80e6 Pull complete
   ✓ 0c7ed296d318 Pull complete
   ✓ df7ac71df34c Pull complete
   ✓ 1adabd6b0d6b Pull complete
   ✓ 5978bb36bf95 Pull complete
   ✓ 93300bbaa9a6 Pull complete
   ✓ 1bbcc8a20dad Pull complete
 ✓ grafana Pulled
   ✓ 0594e32209ae Pull complete
   ✓ 7d0737898ab0 Pull complete
   ✓ 158f7072053f Pull complete
   ✓ 9c47b023288a Pull complete
   ✓ de49e6948609 Pull complete
[+] Running 3/3
 ✓ Network openwebui_default  Created
 ✓ Container lgtm             Started
 ✓ Container open-webui       Started
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ sudo docker ps -a
CONTAINER ID   IMAGE                                COMMAND                  CREATED         STATUS                   PORTS
                                         NAMES
1770454f4b3f   ghcr.io/open-webui/open-webui:main   "bash start.sh"          3 minutes ago   Up 3 minutes (healthy)   0.0.0.0:8000->8080/tcp, [::]:8000->8080/tcp
                                         open-webui
54b3eb62766d   grafana/otel-lgtm:latest             "/otel-lgtm/run-all.…"   3 minutes ago   Up 3 minutes             0.0.0.0:3000->3000/tcp, [::]:3000->3000/tcp, 0.0.0.0:4317-4318->4317
318/tcp, [::]:4317-4318->4317-4318/tcp   lgtm
ubuntu@ip-172-31-31-155:~/openwebui$
ubuntu@ip-172-31-31-155:~/openwebui$ 
```



EC2 > Security Groups > sg-0594c1d75846578c6 - launch-wizard-1 > Edit inbound rules

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 Info	Protocol Info	Port range Info	Source Info		Description - optional Info	
sgr-04fcbf5539b90559b	HTTP ▼	TCP	80	Custom ▼	0.0.0.0/0 ✕		Delete
sgr-03c2ea1135ec37876	HTTPS ▼	TCP	443	Custom ▼	0.0.0.0/0 ✕		Delete
sgr-026597ee449c1d1ee	SSH ▼	TCP	22	Custom ▼	0.0.0.0/0 ✕		Delete
–	Custom TCP ▼	TCP	8000	Anywhe... ▼	0.0.0.0/0 0.0.0.0/0 ✕		Delete
–	Custom TCP ▼	TCP	3000	Anywhe... ▼	0.0.0.0/0 0.0.0.0/0 ✕		Delete

⚠ 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.

https://ap-south-1.console.aws.amazon.com/console/home?region=ap-south-1

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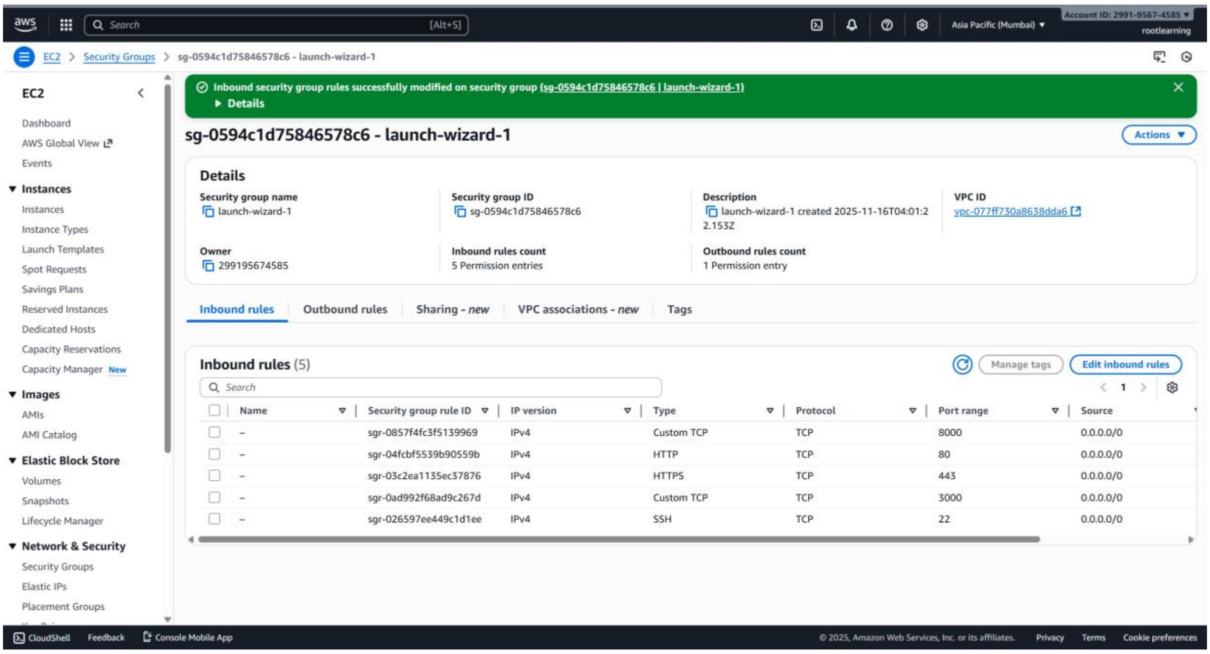


Inbound security group rules successfully modified on security group (sg-0594c1d75846578c6 | launch-wizard-1)

Details

sg-0594c1d75846578c6 - launch-wizard-1

Details

Security group name: launch-wizard-1

Security group ID: sg-0594c1d75846578c6

Description: launch-wizard-1 created 2025-11-16T04:01:22.153Z

VPC ID: vpc-077ff730a8638dda6

Owner: 299195674585

Inbound rules count: 5 Permission entries

Outbound rules count: 1 Permission entry

Inbound rules (5)

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
–	sgr-0857f4fc3f5139969	IPv4	Custom TCP	TCP	8000	0.0.0.0/0
–	sgr-04fcbf5539b90559b	IPv4	HTTP	TCP	80	0.0.0.0/0
–	sgr-03c2ea1135ec37876	IPv4	HTTPS	TCP	443	0.0.0.0/0
–	sgr-0ad992f68ad9c267d	IPv4	Custom TCP	TCP	3000	0.0.0.0/0
–	sgr-026597ee449c1d1ee	IPv4	SSH	TCP	22	0.0.0.0/0

# After the server is started via docker compose:

Make sure that **3000** and **8000** port are exposed via AWS security group.

Now the openwebui would be available on the 8000 port

<public_ip/public_url>:8000 -> openwebui

<public_ip/public_ec2>:3000 -> grafana dashboard

Run the server in background

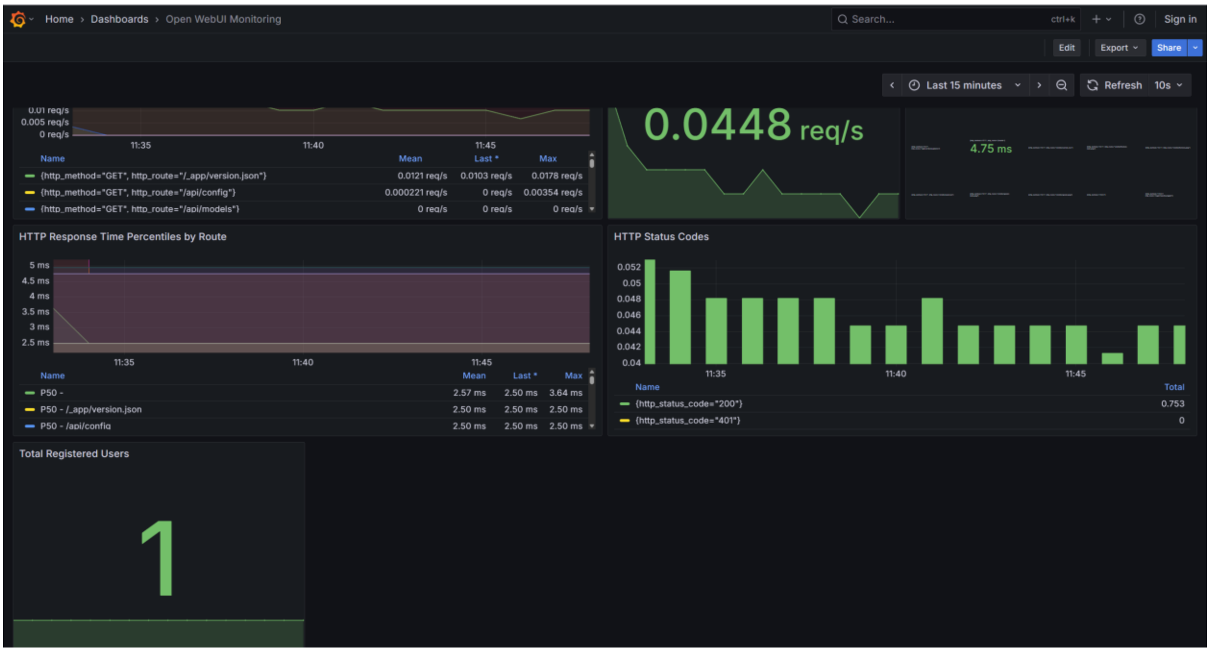
```
sudo vim /etc/systemd/system/openwebui.service
```

```
[Unit]

Description=Open WebUI + Grafana Docker Compose Service

Requires=docker.service

After=docker.service

[Service]

Type=oneshot

WorkingDirectory=/home/ubuntu/openwebui

ExecStart=/usr/bin/docker compose -f docker-compose.otel.yaml up -d

ExecStop=/usr/bin/docker compose -f docker-compose.otel.yaml down

RemainAfterExit=yes
```

```
TimeoutStartSec=0

[Install]

WantedBy=multi-user.target
```

```
sudo systemctl daemon-reload

sudo systemctl enable --now openwebui.service

sudo systemctl status openwebui.service
```

Grafana for Data Visualize:



Name	Mean	Last *	Max
{http_method="GET", http_route="/_app/version.json"}	0.0121 req/s	0.0103 req/s	0.0178 req/s
{http_method="GET", http_route="/api/config"}	0.000221 req/s	0 req/s	0.00354 req/s
{http_method="GET", http_route="/api/models"}	0 req/s	0 req/s	0 req/s

HTTP Response Time Percentiles by Route

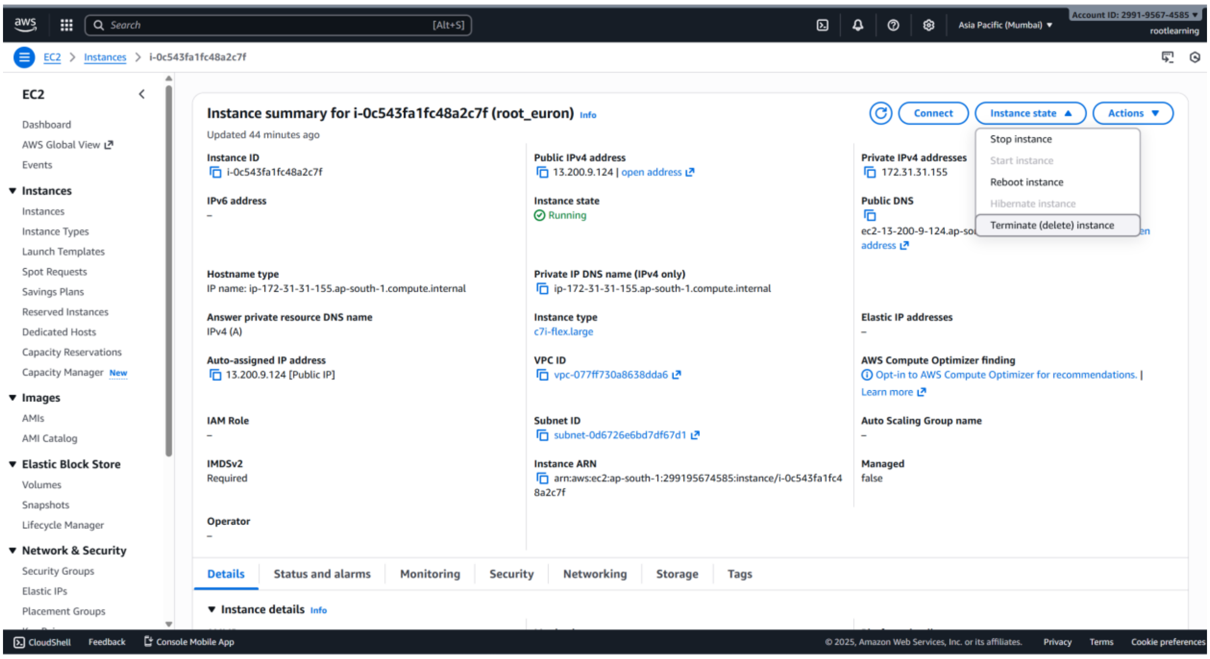
Name	Mean	Last *	Max
P50 -	2.57 ms	2.50 ms	3.64 ms
P50 - /_app/version.json	2.50 ms	2.50 ms	2.50 ms
P50 - /api/config	2.50 ms	2.50 ms	2.50 ms

HTTP Status Codes

Name	Total
{http_status_code="200"}	0.753
{http_status_code="401"}	0

Total Registered Users

How to shut down the machine and terminate your ec2 instance



Instance summary for i-0c543fa1fc48a2c7f (root_euron) Info

Updated 44 minutes ago

Instance ID
i-0c543fa1fc48a2c7f

Public IPv4 address
13.200.9.124 | open address

Private IPv4 addresses
172.31.31.155

IPv6 address
–

Instance state
Running

Public DNS
ec2-13-200-9-124.ap-so… en address

Hostname type
IP name: ip-172-31-31-155.ap-south-1.compute.internal

Private IP DNS name (IPv4 only)
ip-172-31-31-155.ap-south-1.compute.internal

Answer private resource DNS name
IPv4 (A)

Instance type
c7i-flex.large

Elastic IP addresses
–

Auto-assigned IP address
13.200.9.124 [Public IP]

VPC ID
vpc-077ff730a8638dda6

AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations. | Learn more

IAM Role
–

Subnet ID
subnet-0d6726e6bd7df67d1

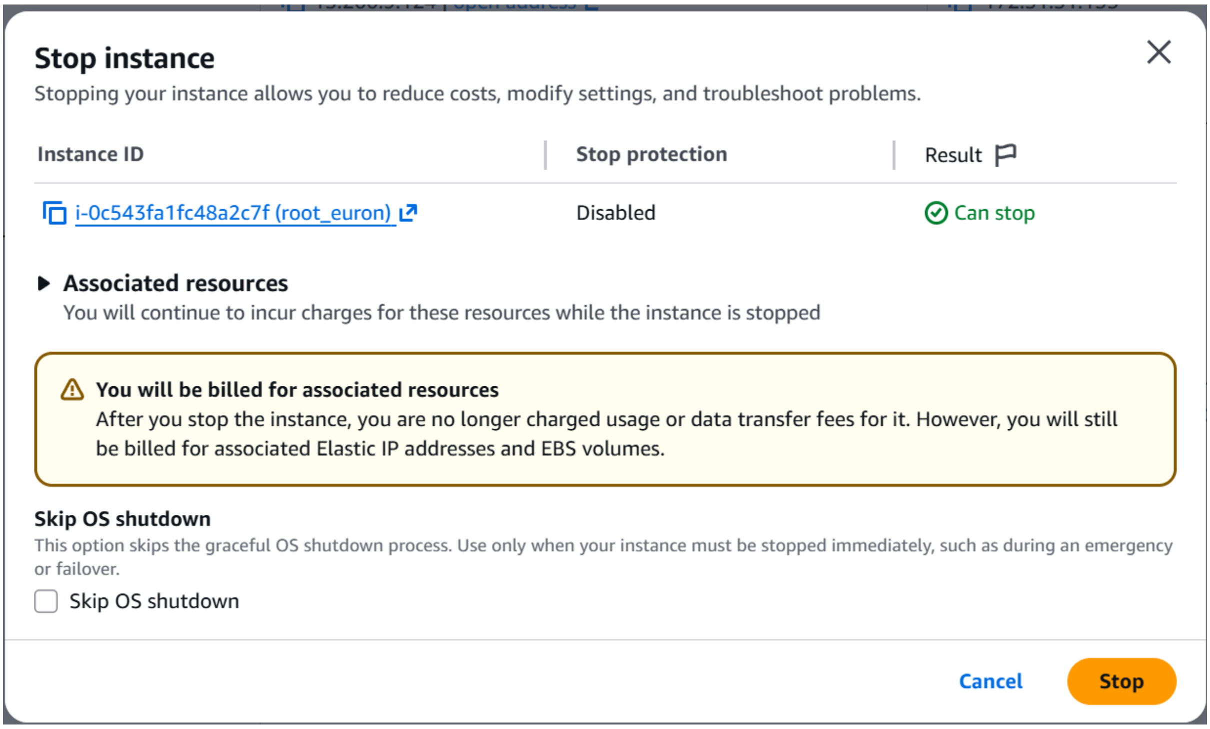
Auto Scaling Group name
–

IMDSv2
Required

Instance ARN
arn:aws:ec2:ap-south-1:299195674585:instance/i-0c543fa1fc48a2c7f

Managed
false

Operator
–



Stop instance

Stopping your instance allows you to reduce costs, modify settings, and troubleshoot problems.

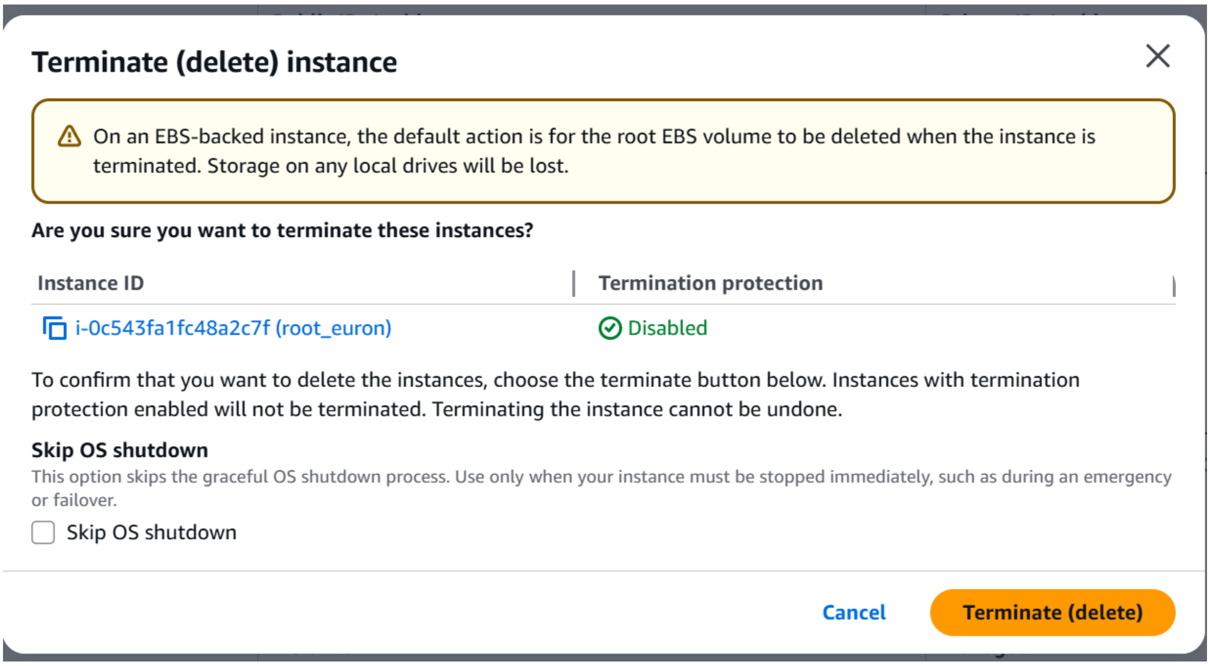
Instance ID	Stop protection	Result
i-0c543fa1fc48a2c7f (root_euron)	Disabled	Can stop

▶ **Associated resources**
You will continue to incur charges for these resources while the instance is stopped

You will be billed for associated resources
After you stop the instance, you are no longer charged usage or data transfer fees for it. However, you will still be billed for associated Elastic IP addresses and EBS volumes.

Skip OS shutdown
This option skips the graceful OS shutdown process. Use only when your instance must be stopped immediately, such as during an emergency or failover.

□ Skip OS shutdown



Terminate (delete) instance

⚠ 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?

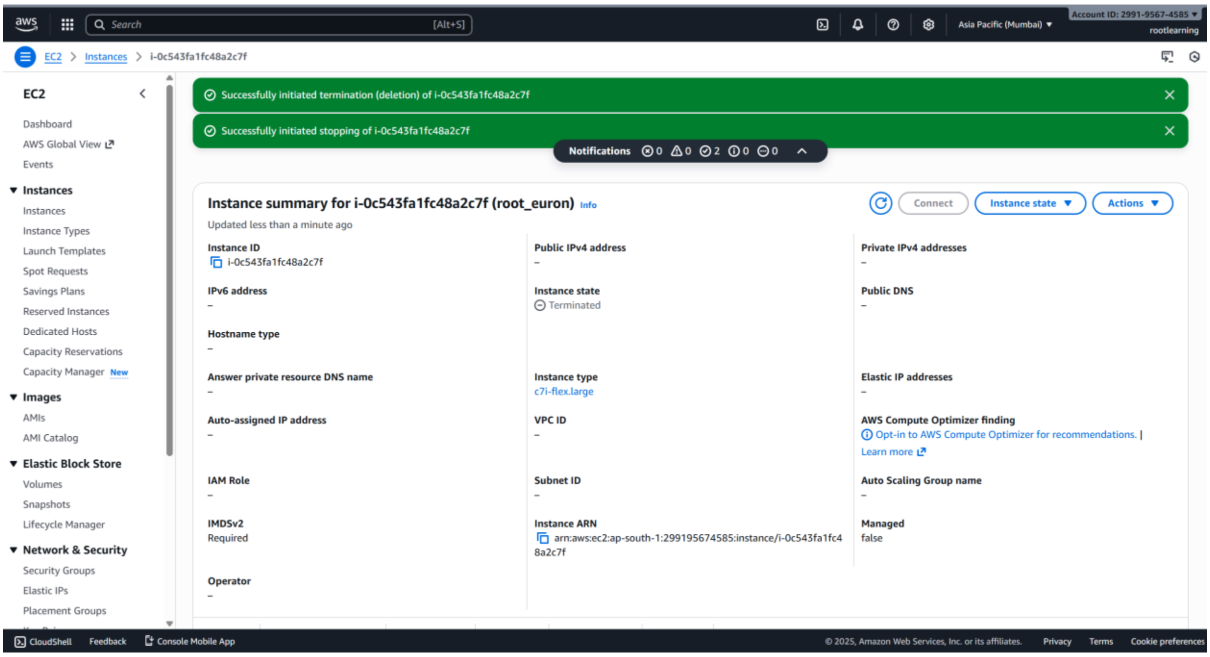
Instance ID	Termination protection
i-0c543fa1fc48a2c7f (root_euron)	✓ Disabled

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

Skip OS shutdown

This option skips the graceful OS shutdown process. Use only when your instance must be stopped immediately, such as during an emergency or failover.

□ Skip OS shutdown



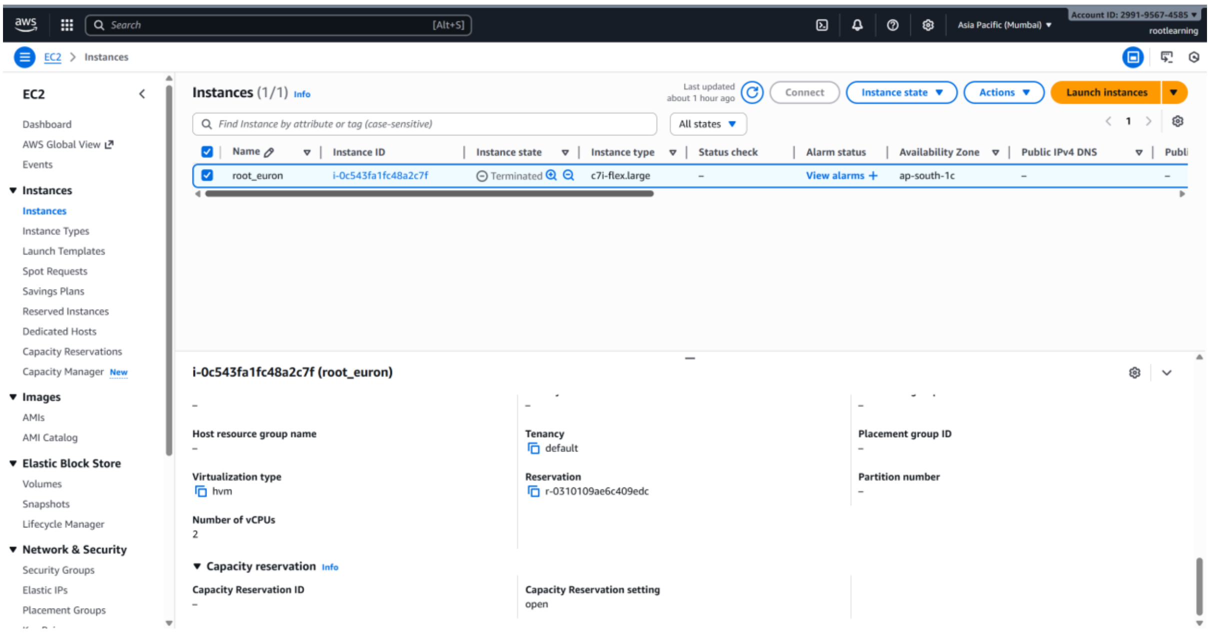
✓ Successfully initiated termination (deletion) of i-0c543fa1fc48a2c7f

✓ Successfully initiated stopping of i-0c543fa1fc48a2c7f

Instance summary for i-0c543fa1fc48a2c7f (root_euron) Info

Updated less than a minute ago

Instance ID i-0c543fa1fc48a2c7f	**Public IPv4 address** –	**Private IPv4 addresses** –
IPv6 address –	**Instance state** ⊖ Terminated	**Public DNS** –
Hostname type –		
Answer private resource DNS name –	**Instance type** c7i-flex.large	**Elastic IP addresses** –
Auto-assigned IP address –	**VPC ID** –	**AWS Compute Optimizer finding** ⓘ Opt-in to AWS Compute Optimizer for recommendations. | Learn more
IAM Role –	**Subnet ID** –	**Auto Scaling Group name** –
IMDSv2 Required	**Instance ARN** arn:aws:ec2:ap-south-1:299195674585:instance/i-0c543fa1fc48a2c7f	**Managed** false
Operator –		



Instances (1/1) Info

☑	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Publi
☑	root_euron	i-0c543fa1fc48a2c7f	Terminated	c7i-flex.large	–	View alarms +	ap-south-1c	–	–

i-0c543fa1fc48a2c7f (root_euron)

–	–	–
Host resource group name –	Tenancy default	Placement group ID –
Virtualization type hvm	Reservation r-0310109ae6c409edc	Partition number –
Number of vCPUs 2		

Capacity reservation Info

Capacity Reservation ID –	Capacity Reservation setting open