

PROJECT-3 DOCUMENTATION

Integrate Grafana with Linux Server for high cpu utilization and create a graph in Grafana

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PROJECT-3

Integrate Grafana with Linux Server for high cpu utilization and create a graph in Grafana

Introduction

This document provides a step-by-step guide to integrating Grafana with a Linux server to monitor high CPU utilization using Prometheus and Node Exporter. We will cover the installation and configuration of Prometheus, Node Exporter, and Grafana on an AWS EC2 instance.

Prerequisites

- AWS account with permissions to create EC2 instances and security groups.
- SSH client installed on your local machine.
- Basic knowledge of Linux command-line operations.

❖ Introduction to Grafana

Grafana is an open-source analytics and monitoring platform that is highly extensible and widely used for visualizing time-series data from various data sources, such as Prometheus, InfluxDB, Elasticsearch, and many more. It provides an intuitive web-based interface to create, explore, and share dashboards that help visualize and monitor system metrics, logs, and application data.



➤ Features of Grafana

- **Dashboards:** Customizable dashboards that provide a rich set of visualizations for data analysis.
- **Data Source Management:** Integrate with various data sources seamlessly.
- **Alerting:** Set up alert rules and notifications to monitor critical metrics.
- **Templating:** Use templates to create reusable dashboards.
- **Annotations:** Add contextual information directly to your graphs.
- **User Management:** Control access with fine-grained user permissions and roles.
- **Plugins:** Extend Grafana's functionality with a wide array of plugins.

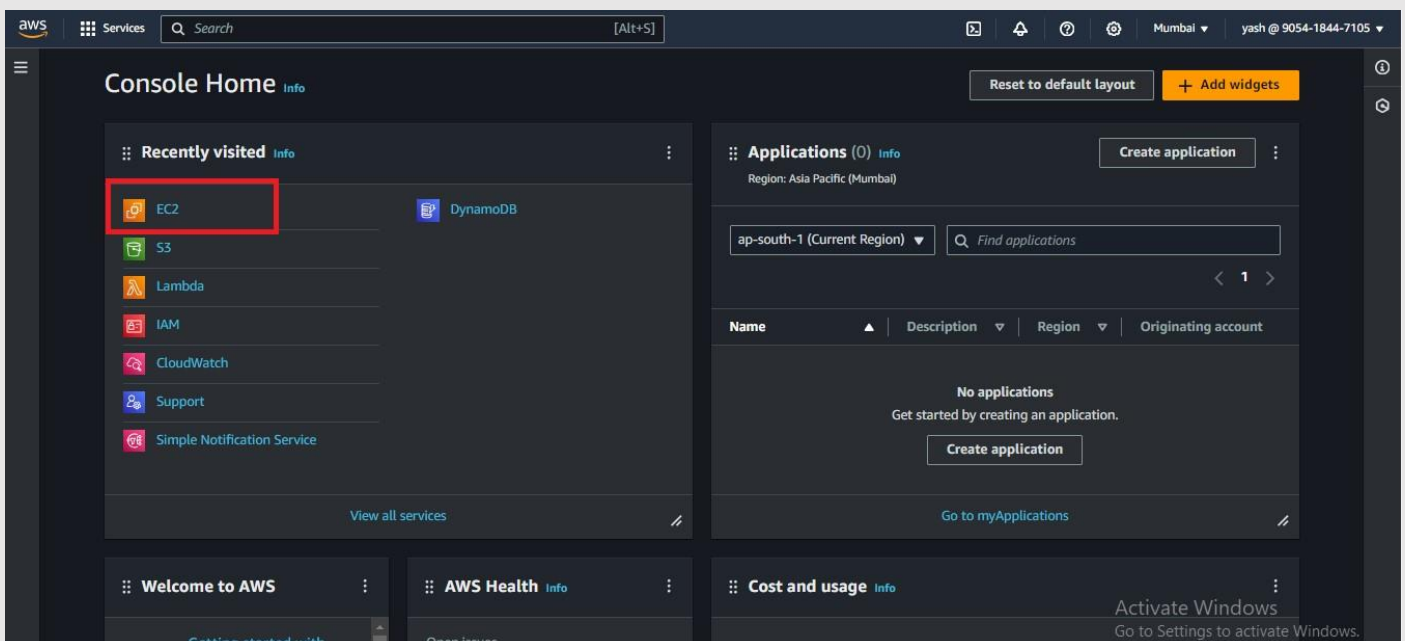
➤ LAB STEPS:-

❖ Sign in to AWS Management Console

1. Click on the Open Console button, and you will get redirected to AWS Console in a new browser tab.
2. On the AWS sign-in page,
 - ❖ Leave the Account ID as default. Never edit/remove the 12 digit Account ID present in the AWS Console. otherwise, you cannot proceed with the lab.
 - ❖ Now copy your User Name and Password in the Lab Console to the IAM Username and Password in AWS Console and click on the Sign in button.
3. Once Signed In to the AWS Management Console, Make the default AWS Region as US East (N. Virginia) us-east-1.

❖ Create an EC2 Instance(ubuntu):

- For creating an EC2 instance follow the following steps as shown in snapshots.



Resources

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

Instances (running)	1	Auto Scaling Groups	0	Dedicated Hosts	0
Elastic IPs	0	Instances	1	Key pairs	5
Load balancers	0	Placement groups	0	Security groups	8
Snapshots	0	Volumes	1		

Launch instance

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

Launch instance ▼

Migrate a server ↗

Service health

AWS Health Dashboard ↗

Region: Asia Pacific (Mumbai)

Status: This service is operating normally.

EC2 Free Tier

Offers for all AWS Regions.

2 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: 12% (661.837222 hours remaining)

Storage space on EBS: 3% (29.1 GB remaining)

- Provide the EC2 name of your choice and select **"Ubuntu"** as an OS Image.

Name and tags

Name: **yash_EC2**

Application and OS Images (Amazon Machine Image)

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

Recents **Quick Start**

Ubuntu

Amazon Linux, macOS, Windows, Red Hat, SUSE L

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

- Create a 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



Create new key pair

Create key pair



Key pair name

Key pairs allow you to connect to your instance securely.

yash_keypair

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

Key pair type



RSA

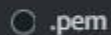
RSA encrypted private and public key pair



ED25519

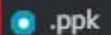
ED25519 encrypted private and public key pair

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](#)

Cancel

Create key pair

- Scroll down and click on **Launch Instance**.

Security group rules to allow access from known IP addresses only.

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

1x GiB Root volume (Not encrypted)

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

[Add new volume](#)

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](#)

Summary

Number of instances [Info](#)

Software Image (AMI)

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

ami-0f58b397bc5c1f2e8

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](#)

- Then open your instance and connect that instance by putty or on web browser.
- After connecting the instance follow the given command or read Grafana documentation for help.

```
aws Services Search [Alt+S]
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1008-aws x86_64)

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

System information disabled due to load higher than 1.0

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-172-31-14-188:~$ sudo apt-get install -y apt-transport-https software-properties-common wget
```


- `sudo apt-get install -y apt-transport-https software-properties-common`

```
aws Services Search [Alt+S]
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See "man sudo_root" for details.

ubuntu@ip-172-31-14-188:~$ sudo apt-get install -y apt-transport-https software-properties-common wget
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'apt' instead of 'apt-transport-https'
apt is already the newest version (2.7.14build2).
apt set to manually installed.
software-properties-common is already the newest version (0.99.48).
software-properties-common set to manually installed.
wget is already the newest version (1.21.4-1ubuntu4).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-14-188:~$ sudo mkdir -p /etc/apt/keyrings/
wget -q -O - https://apt.grafana.com/gpg.key | gpg --dearmor | sudo tee /etc/apt/keyrings/grafana.gpg > /dev/null
```

- `sudo mkdir -p /etc/apt/keyrings/wget -q -O - https://apt.grafana.com/gpg.key | gpg --dearmor | sudo tee /etc/apt/keyrings/grafana.gpg > /dev/null`

```
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Building dependency tree... Done
Reading state information... Done
Note, selecting 'apt' instead of 'apt-transport-https'
apt is already the newest version (2.7.14build2).
apt set to manually installed.
software-properties-common is already the newest version (0.99.48).
software-properties-common set to manually installed.
wget is already the newest version (1.21.4-1ubuntu4).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-14-188:~$ sudo mkdir -p /etc/apt/keyrings/
wget -q -O - https://apt.grafana.com/gpg.key | gpg --dearmor | sudo tee /etc/apt/keyrings/grafana.gpg > /dev/null
ubuntu@ip-172-31-14-188:~$ echo "deb [signed-by=/etc/apt/keyrings/grafana.gpg] https://apt.grafana.com stable main" | sudo tee -a /etc/apt/sources.list.d/grafana.l
st
```

- `echo "deb [signed-by=/etc/apt/keyrings/grafana.gpg] https://apt.grafana.com stable main" | sudo tee -a /etc/apt/sources.list.d/grafana.list`

```
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

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Reading package lists... Done
Building dependency tree... Done
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Note, selecting 'apt' instead of 'apt-transport-https'
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apt set to manually installed.
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wget is already the newest version (1.21.4-1ubuntu4).
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0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-14-188:~$ sudo mkdir -p /etc/apt/keyrings/
wget -q -O - https://apt.grafana.com/gpg.key | gpg --dearmor | sudo tee /etc/apt/keyrings/grafana.gpg > /dev/null
ubuntu@ip-172-31-14-188:~$ echo "deb [signed-by=/etc/apt/keyrings/grafana.gpg] https://apt.grafana.com stable main" | sudo tee -a /etc/apt/sources.list.d/grafana.list
st
deb [signed-by=/etc/apt/keyrings/grafana.gpg] https://apt.grafana.com stable main
ubuntu@ip-172-31-14-188:~$ # Updates the list of available packages
sudo apt-get update
```

Activate Windows

To updates the list of available packages

- `sudo apt-get update`

```
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [25.1 kB]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [45.0 kB]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [112 B]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [70.1 kB]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [14.3 kB]
Get:27 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:28 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [2968 B]
Get:29 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [968 B]
Get:30 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [212 B]
Get:31 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [116 B]
Get:32 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:33 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:34 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [6840 B]
Get:35 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [9652 B]
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [17.6 kB]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [116 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:42 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [158 kB]
Get:43 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [41.5 kB]
Get:44 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [6876 B]
Get:45 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [44.4 kB]
Get:46 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [17.0 kB]
Get:47 https://apt.grafana.com stable/main amd64 Packages [250 kB]
Get:48 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [8632 B]
Get:49 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [112 B]
Get:50 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [70.1 kB]
Get:51 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [14.3 kB]
Get:52 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:53 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:54 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [116 B]
Fetched 29.4 MB in 6s (4962 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-14-188:~$ sudo apt-get install grafana-enterprise
```

To installs the latest Enterprise release:

- `sudo apt-get install grafana-enterprise`

```
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 musl amd64 1.2.4-2 [416 kB]
Get:2 https://apt.grafana.com stable/main amd64 grafana-enterprise amd64 11.0.0 [120 MB]
Fetched 121 MB in 11s (10.5 MB/s)
Selecting previously unselected package musl:amd64.
(Reading database ... 71839 files and directories currently installed.)
Preparing to unpack .../musl_1.2.4-2_amd64.deb ...
Unpacking musl:amd64 (1.2.4-2) ...
Selecting previously unselected package grafana-enterprise.
Preparing to unpack .../grafana-enterprise_11.0.0_amd64.deb ...
Unpacking grafana-enterprise (11.0.0) ...
Setting up musl:amd64 (1.2.4-2) ...
Setting up grafana-enterprise (11.0.0) ...
info: Selecting UID from range 100 to 999 ...

info: Adding system user `grafana' (UID 111) ...
info: Adding new user `grafana' (UID 111) with group `grafana' ...
info: Not creating home directory `/usr/share/grafana'.
### NOT starting on installation, please execute the following statements to configure grafana to start automatically using systemd
  sudo /bin/systemctl daemon-reload
  sudo /bin/systemctl enable grafana-server
### You can start grafana-server by executing
  sudo /bin/systemctl start grafana-server
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-14-188:~$ sudo systemctl start grafana-server
```

- `sudo systemctl start grafana-server`

```
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-provisioning.dashboard t=2024-06-18T15:11:38.331125089Z level=info msg="starting to provision dashboards"
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-provisioning.dashboard t=2024-06-18T15:11:38.331155154Z level=info msg="finished to provision dashboards"
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-http.server t=2024-06-18T15:11:38.380358573Z level=info msg="HTTP Server Listen" address=[::]:3000 protocol=
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-sqlstore.transactions t=2024-06-18T15:11:38.493822724Z level=info msg="Database locked, sleeping then retryi
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-sqlstore.transactions t=2024-06-18T15:11:38.516065191Z level=info msg="Database locked, sleeping then retryi
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-plugins.update.checker t=2024-06-18T15:11:38.853932226Z level=info msg="Update check succeeded" duration=554
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-grafana.update.checker t=2024-06-18T15:11:38.874267515Z level=info msg="Update check succeeded" duration=580
Jun 18 15:11:39 ip-172-31-14-188 grafana[2028]: logger-plugin.angular detectorsprovider.dynamic t=2024-06-18T15:11:39.007963038Z level=info msg="Patterns update fin
Jun 18 15:11:39 ip-172-31-14-188 grafana[2028]: logger-grafana-apiserver t=2024-06-18T15:11:39.383980342Z level=info msg="Adding GroupVersion playlist.grafana.app
Jun 18 15:11:39 ip-172-31-14-188 grafana[2028]: logger-grafana-apiserver t=2024-06-18T15:11:39.384644464Z level=info msg="Adding GroupVersion featuretoggle.grafana
ubuntu@ip-172-31-14-188:~$ sudo systemctl enable grafana-server.service
```

- `sudo systemctl enable grafana-server.service`

```
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-provisioning.dashboard t=2024-06-18T15:11:38.331125089Z level=info msg="starting to provision dashboards"
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-provisioning.dashboard t=2024-06-18T15:11:38.331155154Z level=info msg="finished to provision dashboards"
Jun 18 15:11:38 ip-172-31-14-188 grafana[2028]: logger-http.server t=2024-06-18T15:11:38.380358573Z level=info msg="HTTP Server Listen" address=[::]:3000 protocol=
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Jun 18 15:11:39 ip-172-31-14-188 grafana[2028]: logger-plugin.angular detectorsprovider.dynamic t=2024-06-18T15:11:39.007963038Z level=info msg="Patterns update fin
Jun 18 15:11:39 ip-172-31-14-188 grafana[2028]: logger-grafana-apiserver t=2024-06-18T15:11:39.383980342Z level=info msg="Adding GroupVersion playlist.grafana.app
Jun 18 15:11:39 ip-172-31-14-188 grafana[2028]: logger-grafana-apiserver t=2024-06-18T15:11:39.384644464Z level=info msg="Adding GroupVersion featuretoggle.grafana
ubuntu@ip-172-31-14-188:~$ sudo systemctl enable grafana-server.service
Synchronizing state of grafana-server.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable grafana-server
Created symlink /etc/systemd/system/multi-user.target.wants/grafana-server.service → /usr/lib/systemd/system/grafana-server.service.
ubuntu@ip-172-31-14-188:~$ sudo systemctl status grafana-server
```

- `sudo systemctl status grafana-server.service`

```

Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

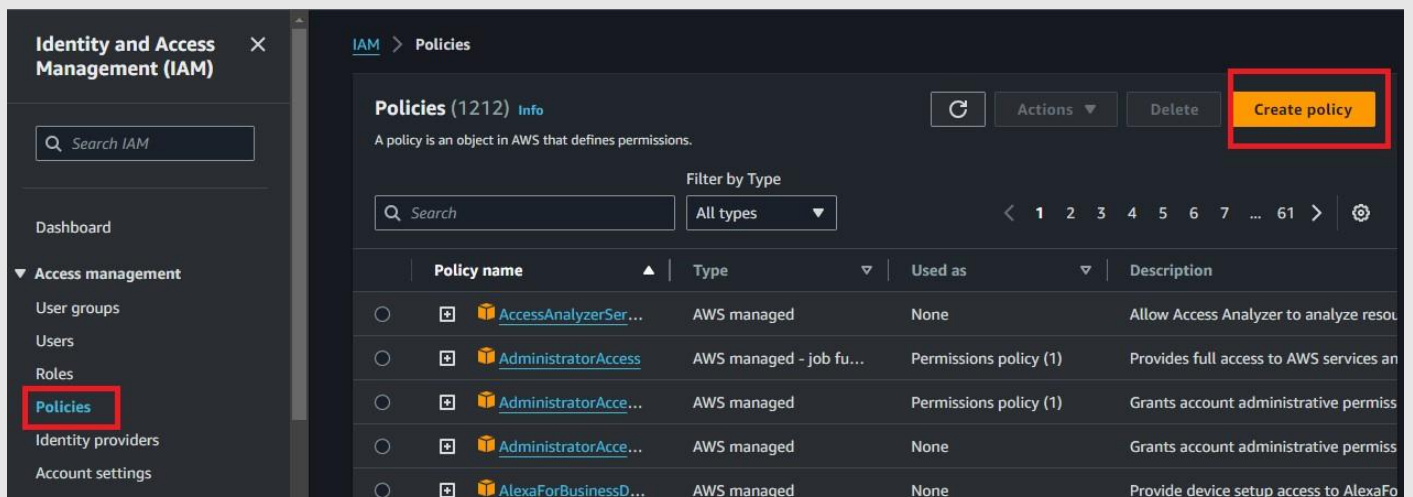
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-14-188:~$ sudo systemctl start grafana-server
ubuntu@ip-172-31-14-188:~$ sudo systemctl status grafana-server
● grafana-server.service - Grafana instance
   Loaded: loaded (/usr/lib/systemd/system/grafana-server.service; disabled; preset: enabled)
   Active: active (running) since Tue 2024-06-18 15:11:29 UTC; 21s ago
     Docs: https://grafana.org
   Main PID: 2028 (grafana)
    Tasks: 16 (limit: 1130)
   Memory: 88.9M (peak: 89.3M)
      CPU: 3.284s

```

Active(running)

[?](#) Create Policy and Roles:-

Follow the following below rectangular box steps for POLICY



Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

- User groups
- Users
- Roles
- Policies**
- Identity providers
- Account settings

Policies (1212) Info

A policy is an object in AWS that defines permissions.

Filter by Type

Search

All types

< 1 2 3 4 5 6 7 ... 61 >

	Policy name	Type	Used as	Description
<input type="radio"/>	AccessAnalyzerSer...	AWS managed	None	Allow Access Analyzer to analyze resou
<input type="radio"/>	AdministratorAccess	AWS managed - job fu...	Permissions policy (1)	Provides full access to AWS services an
<input type="radio"/>	AdministratorAcce...	AWS managed	Permissions policy (1)	Grants account administrative permis
<input type="radio"/>	AdministratorAcce...	AWS managed	None	Grants account administrative permis
<input type="radio"/>	AlexaForBusinessD...	AWS managed	None	Provide device setup access to AlexaFo

Refresh Actions Delete **Create policy**

Specify permissions Info

Add permissions by selecting services, actions, resources, and conditions. Build permission statements using the JSON editor.

Policy editor

Visual

JSON

Actions ▼



▼ Select a service

Specify what actions can be performed on specific resources in a service.

Specify permissions [Info](#)

Add permissions by selecting services, actions, resources, and conditions. Build permission statements using the JSON editor.

Policy editor

Visual

JSON

Actions ▼



Edit statement
Statement1

Remove

Add actions

Choose a service

Q cloudwatch



Available

CloudWatch

CloudWatch Application Insights

CloudWatch Evidently

Specify permissions [Info](#)

Add permissions by selecting services, actions, resources, and conditions. Build permission statements using the JSON editor.

Policy editor

Visual

JSON

Actions ▼



Edit statement
Statement1

Remove

Add actions

All services > CloudWatch

Q Filter actions

☒ All actions (cloudwatch:*)

Access level - list

☒ ListDashboards [Info](#)

Policy Editor:-

```
{  
  
    "Version": "2012-10-17",  
  
    "Statement": [  
  
        {  
  
            "Sid": "Statement1",  
            "Effect": "Allow",  
  
            "Action": [  

```

```

    "cloudwatch:*"
  ],
  "Resource": "*"
}
]
}

```

Permissions defined in this policy [Info](#)

Permissions defined in this policy document specify which actions are allowed or denied. To define permissions for an IAM identity (user, user group, or role), attach a policy to it

Allow (1 of 418 services) Show remaining 417 services

Service	Access level	Resource	Request condition
CloudWatch	Full access	All resources	None

Add tags - optional [Info](#)

Tags are key-value pairs that you can add to AWS resources to help identify, organize, or search for resources.

No tags associated with the resource.

Add new tag

You can add up to 50 more tags.

Cancel

Previous

Create policy

Follow the following below rectangular box steps for ROLE

aws

Services

Search

[Alt+S]

Global

yash @ 9054-1844-7105

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

User groups

Users

Roles

Policies

Identity providers

IAM > Roles

Roles (5) [Info](#)

Refresh

Delete

Create role

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

< 1 > [Settings](#)

<input type="checkbox"/>	Role name	Trusted entities	Last activity
<input type="checkbox"/>	aws-ec2-spot-fleet-tagging-role	AWS Service: spotfleet	-
<input type="checkbox"/>	AWSServiceRoleForApplicationAutoScaling_DynamoDBTable	AWS Service: dynamodb.application	9 days ago
<input type="checkbox"/>	AWSServiceRoleForSupport	AWS Service: support (Service-Linker)	-
<input type="checkbox"/>	AWSServiceRoleForTrustedAdvisor	AWS Service: trustedadvisor (Service-Linker)	-

Select trusted entity [Info](#)

Trusted entity type

- ☒ **AWS service**
Allow AWS services like EC2, Lambda, or others to perform actions in this account.

- ☐ **AWS account**
Allow entities in other AWS accounts belonging to you or a 3rd party to perform actions in this account.

- ☐ **Web identity**
Allows users federated by the specified external web identity provider to assume this role to perform actions in this account.

- ☐ **SAML 2.0 federation**
Allow users federated with SAML 2.0 from a corporate directory to perform actions in this account.

- ☐ **Custom trust policy**
Create a custom trust policy to enable others to perform actions in this account.

Use case

Allow an AWS service like EC2, Lambda, or others to perform actions in this account.

Service or use case

EC2

Choose a use case for the specified service.

Use case

- ☒ **EC2**
Allows EC2 instances to call AWS services on your behalf.
- ☐ **EC2 Role for AWS Systems Manager**
Allows EC2 instances to call AWS services like CloudWatch and Systems Manager on your behalf.
- ☐ **EC2 Spot Fleet Role**
Allows EC2 Spot Fleet to request and terminate Spot Instances on your behalf.
- ☐ **EC2 - Spot Fleet Auto Scaling**
Allows Auto Scaling to access and update EC2 spot fleets on your behalf.

Add permissions [Info](#)

Permissions policies (1/939) [Info](#)

Choose one or more policies to attach to your new role.

Filter by Type

2 matches < 1 >

<input type="checkbox"/>	Policy name ↗	Type	Description
<input type="checkbox"/>	s3crr_for_yash2507_ac330b	Customer managed	-
<input checked="" type="checkbox"/>	yashpolicy	Customer managed	-

► Set permissions boundary - *optional*

Cancel

Previous

Next

#Select your policy

Name, review, and create

Role details

Role name

Enter a meaningful name to identify this role.

cloudrole

Maximum 64 characters. Use alphanumeric and '+=, @-/_' characters.

Description

Add a short explanation for this role.

Allows EC2 instances to call AWS services on your behalf.

Maximum 1000 characters. Use letters (A-Z and a-z), numbers (0-9), tabs, new lines, or any of the following characters: _+=, @-/_[]!#\$%

Give a name your choice to the role

Step 3: Add tags

Add tags - optional [Info](#)

Tags are key-value pairs that you can add to AWS resources to help identify, organize, or search for resources.

No tags associated with the resource.

Add new tag

You can add up to 50 more tags.

Cancel

Previous

Create role

Go to Settings to activate Windows

[?](#) Create a Graph in GRAFANA

Follow the following below rectangular box steps

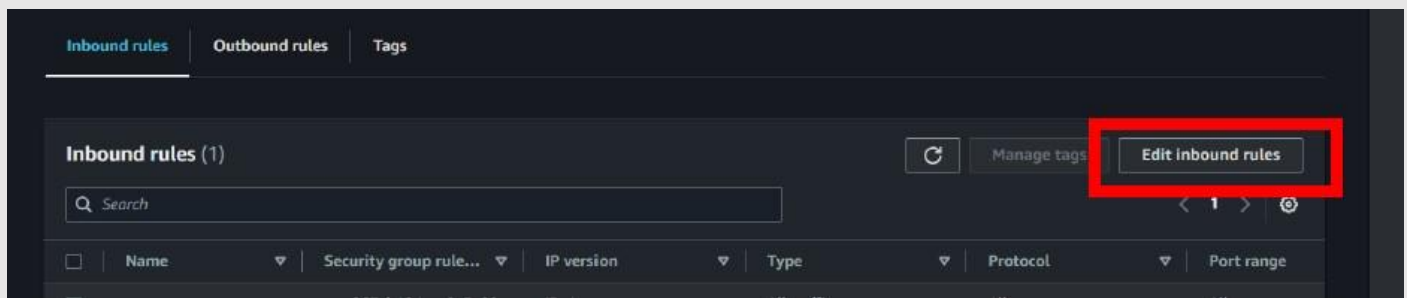
The screenshot shows the AWS Management Console 'Instances (2)' page. The left sidebar contains navigation links: EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, and Savings Plans. The main content area shows a table of instances. The instance 'yash_EC2' with ID 'i-02b977aca0fd3f73d' is highlighted with a red box. The table has columns: Name, Instance ID, Instance state, Instance type, and Status check.

Name	Instance ID	Instance state	Instance type	Status check
mywebserver2	i-0871c853386805764	Running	t2.micro	2/2 checks passed
yash_EC2	i-02b977aca0fd3f73d	Running	t2.micro	-

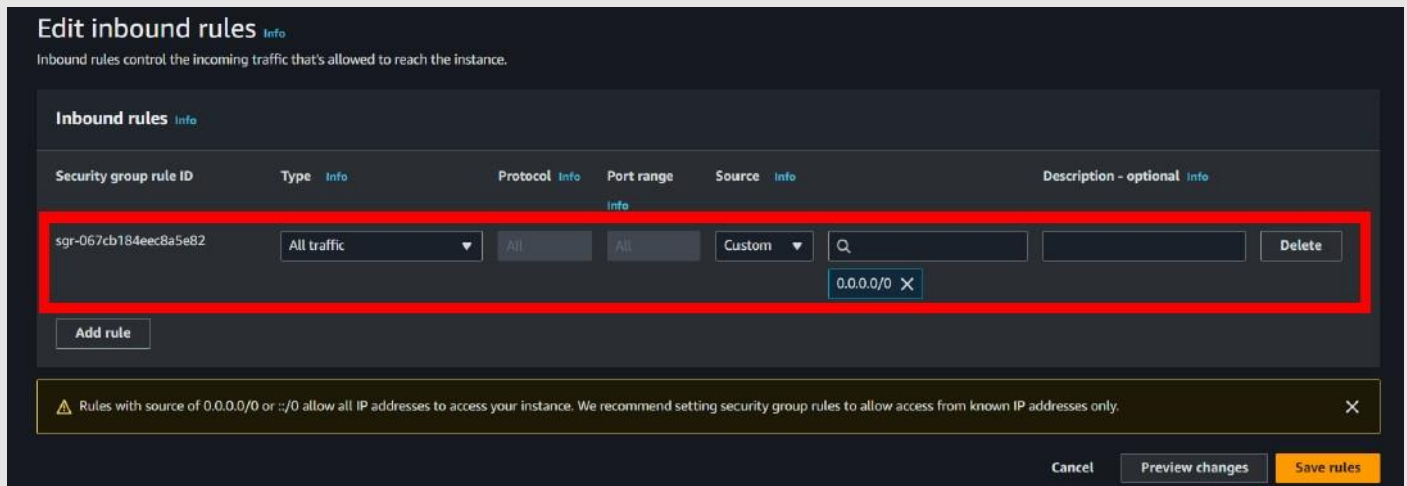
- After creating your role and policy go to instance and open your instance , which you have already created.

The screenshot shows the AWS Management Console 'Security' tab for the instance 'yash_EC2'. The left sidebar contains navigation links: EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, and Reserved Instances. The main content area shows the 'Security details' section. The 'IAM Role' is 'Grafana_ec2' and the 'Owner ID' is '905418447105'. The 'Security groups' section shows 'sg-0185d20be381de3ea (default)'. The 'Security' tab is highlighted with a red box.

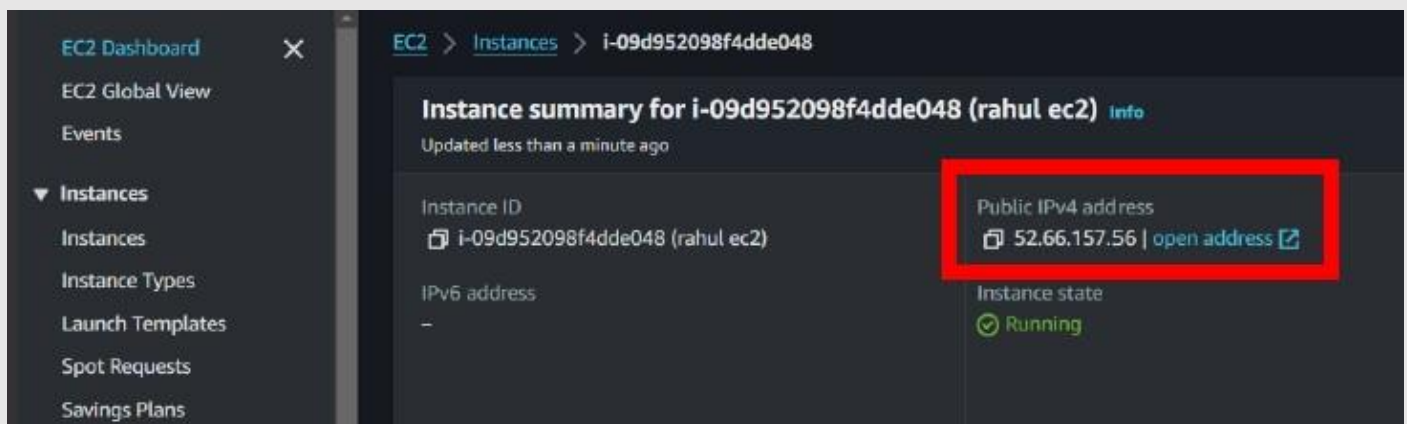
- Scroll down and go to **SECURITY** option.



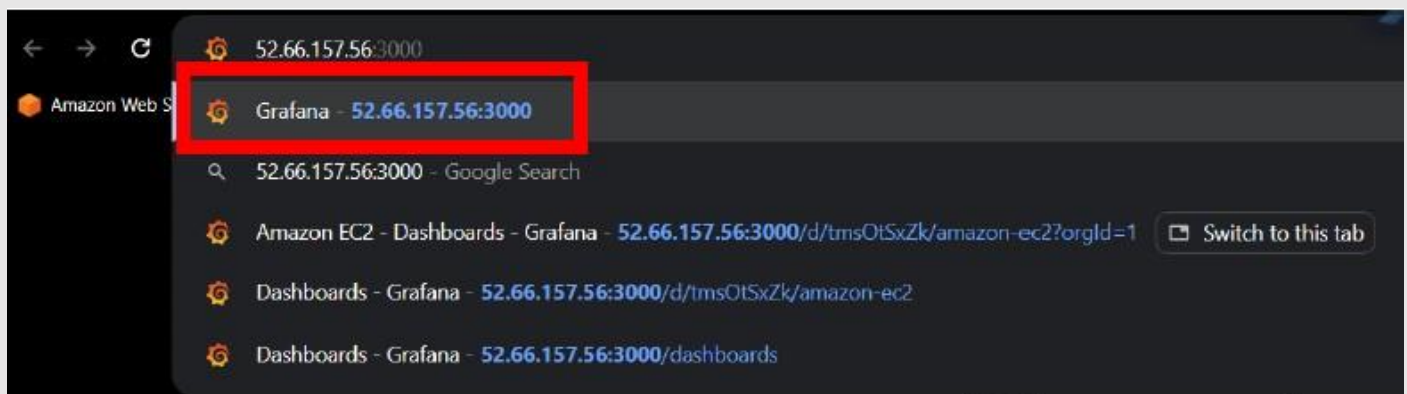
- Then click on **Edit inbound rule.**



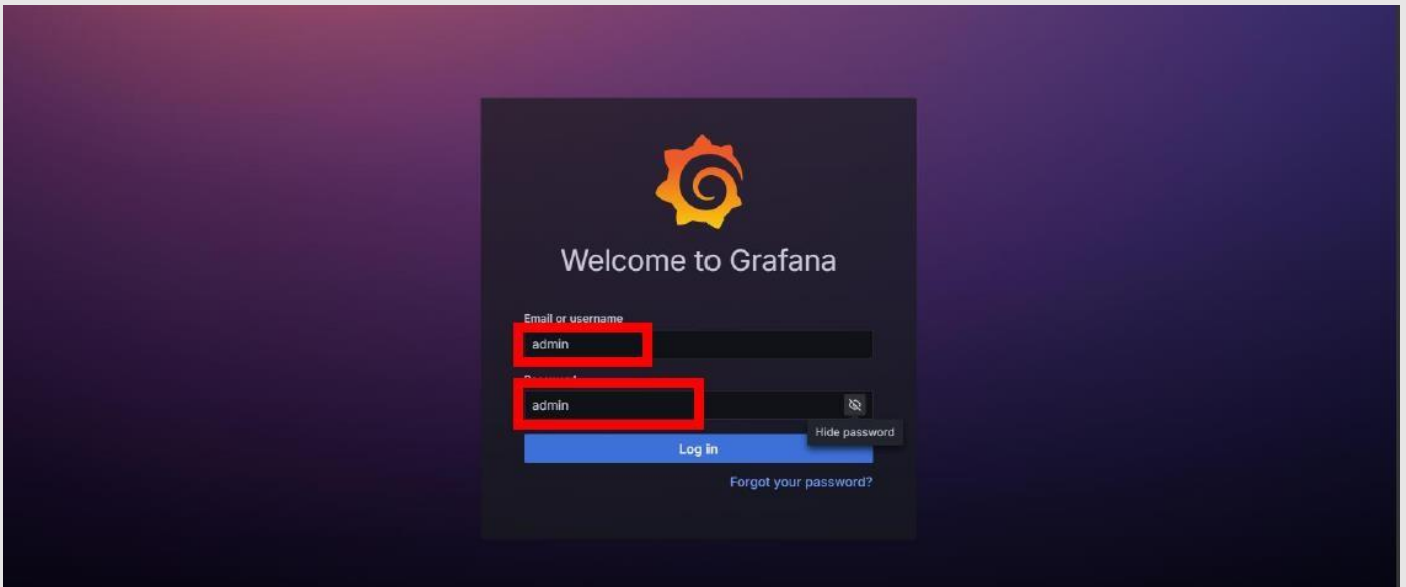
- Then modify your rule select type = All traffic and source =0.0.0.0/0



- Then copy your **Public IPv4 address** of your instance.

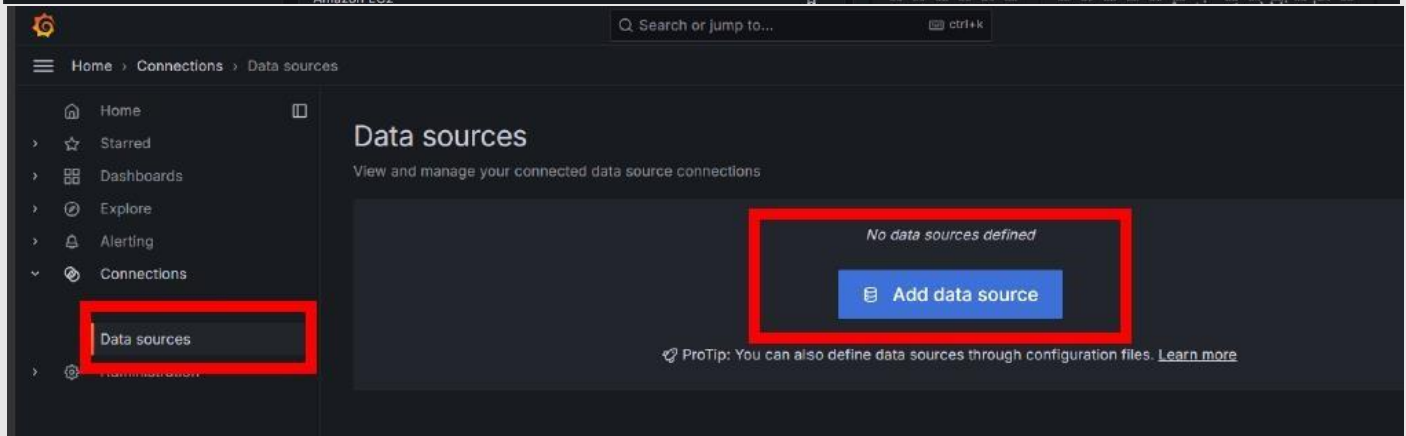
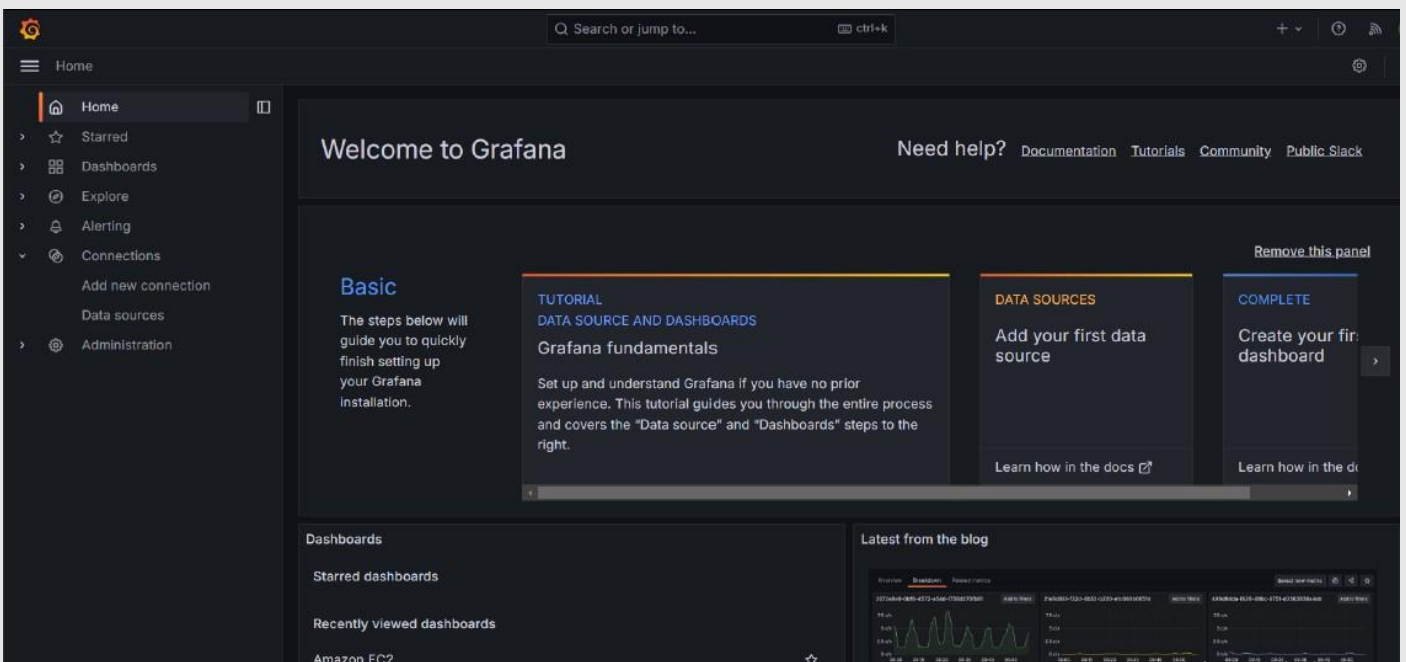


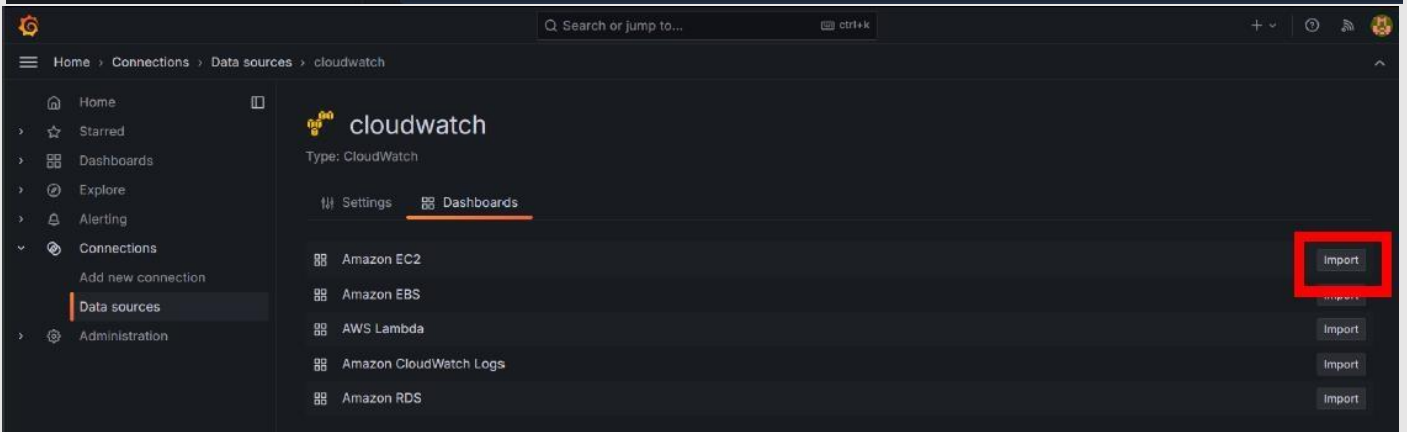
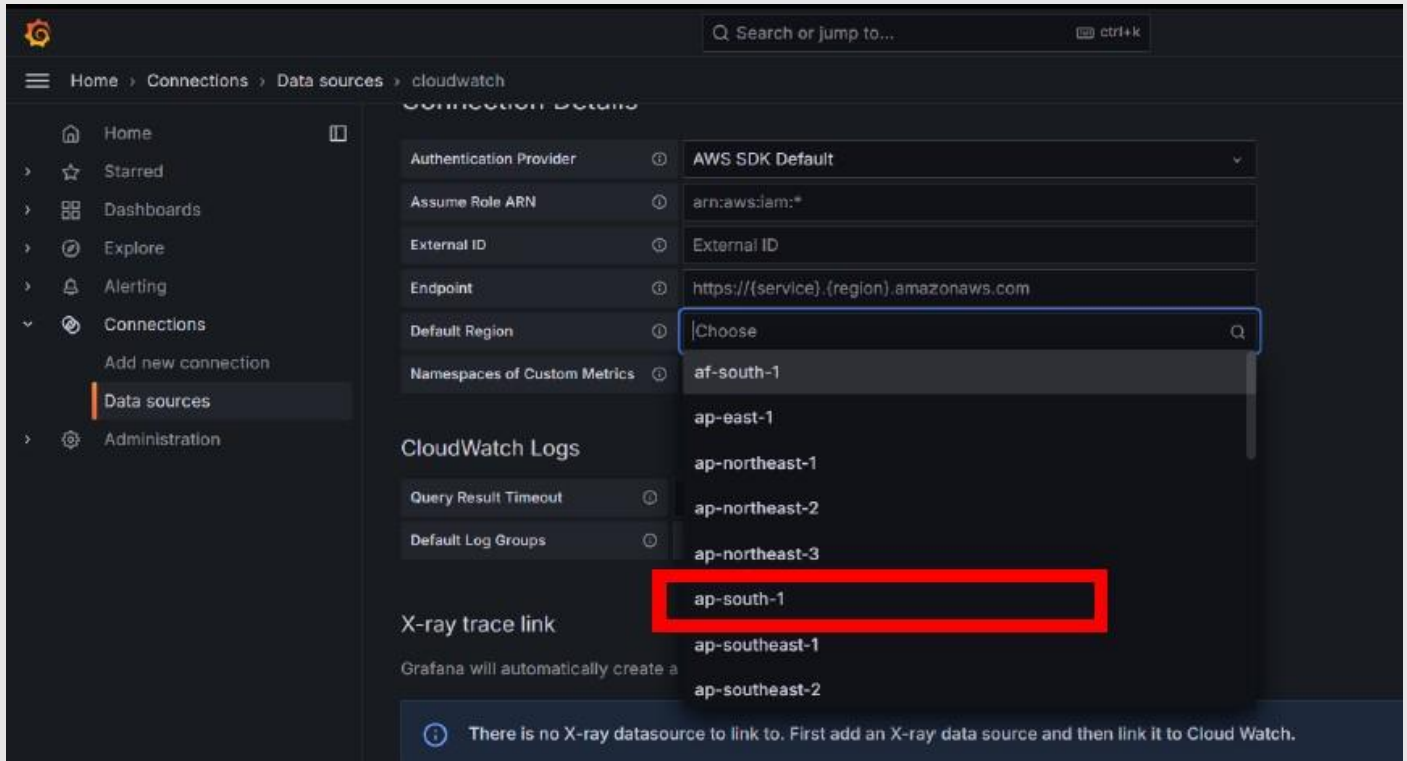
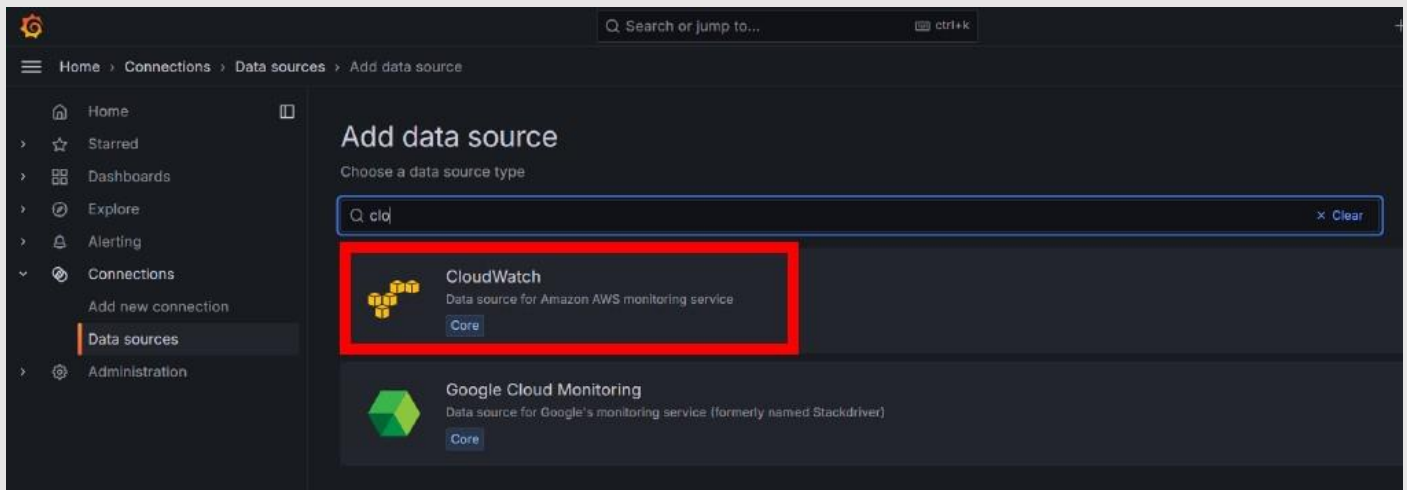
- Then paste your copied ip address and type “:3000” after ip address and search it .



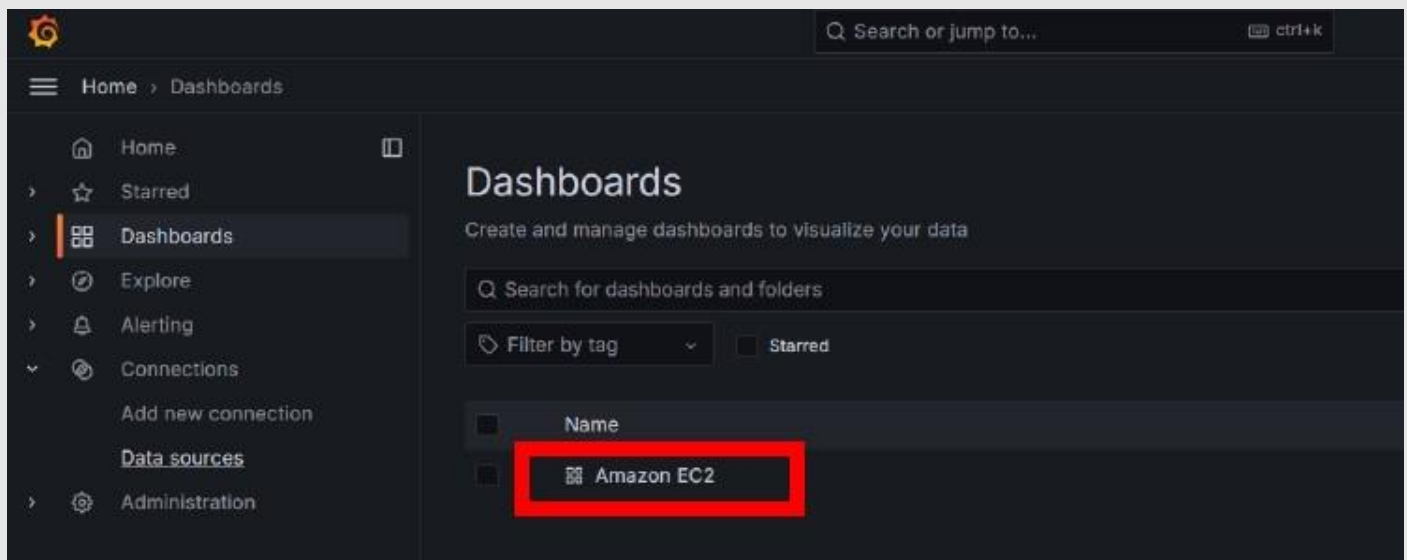
- Then login in Grafana by the help of credentials shown in above snapshot.

Follow the below steps in Rectangular box.





- Then inside your cloudwatch go to dashboard and **Import EC2**.



- Then go to dashboard and open your **Amazon EC2**.

High cpu utilization and a graph in Grafana

