

# Monitoring tool setup

## Glance

### 1.Create a docker file for glance

```
vim docker-compose.yml
```

### 2.Add the following content

```
version: '3'
services:
  glances:
    image: nicolargo/glances
    ports:
      - "61208: 61208"
    volumes:
      - /var/run/docker.sock: /var/run/docker.sock
    command: ["glances", "-w"]
```

This docker-compose.yml file pulls the official Glances Docker image from Docker Hub, maps the necessary port for the web interface, and mounts the Docker socket for container monitoring.

### 3.Run the Glances container

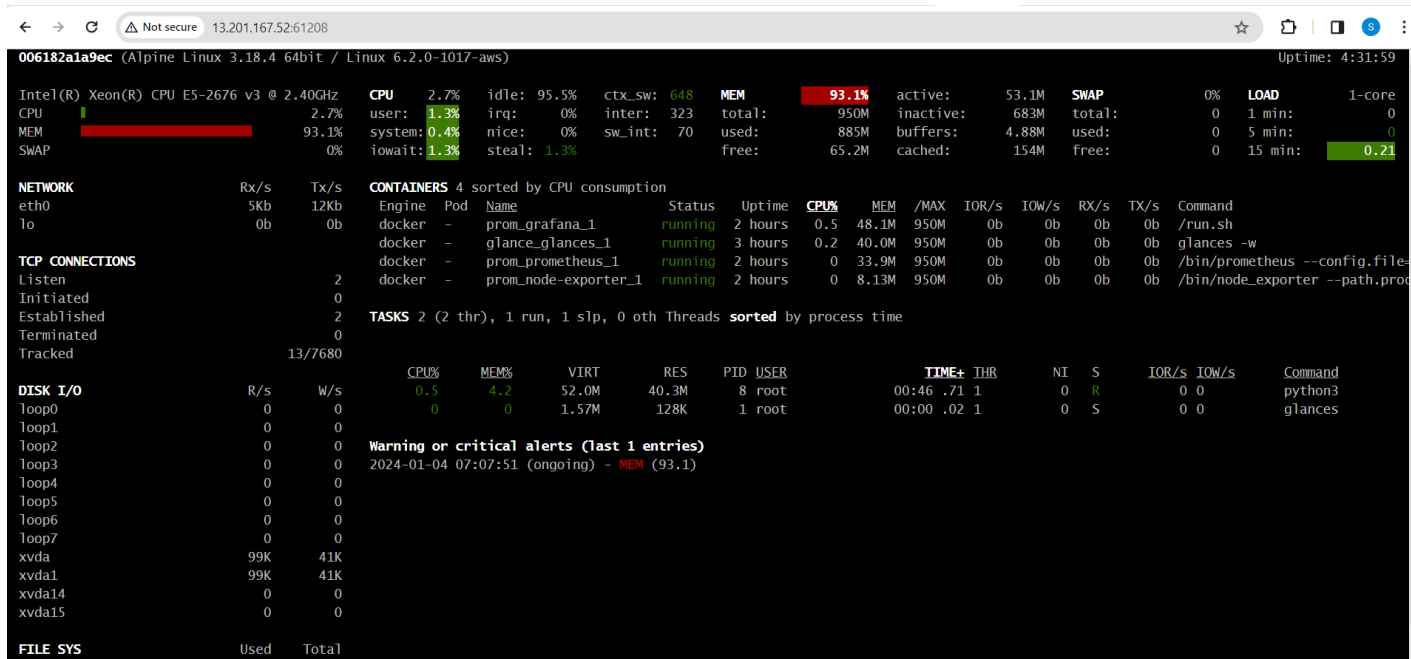
Open a terminal in the directory where you saved the docker-compose.yml file and run the following command:

```
docker-compose up -d
```

This command will download the Glances Docker image and start the container in the background.

### 4.Access the Glances web interface

Open your web browser and go to `http://localhost:61208`. You should see the Glances web interface, where you can monitor various system metrics.



## Prometheus and Grafana with Node-Exporter

### 1. Install Docker and Docker Compose

Make sure you have Docker and Docker Compose installed on your system.

```
apt install docker docker-compose -y
```

**2. Create a directory for your monitoring setup** Create a new directory and navigate into it.

```
mkdir monitoring
cd monitoring
```

**3. Create a `docker-compose.yml` file with the following content**

```
vim docker-compose.yml
```

```
version: '3'
services:
  prometheus:
    image: prom/prometheus
    ports:
      - "9090:9090"
    volumes:
      - . /prometheus: /etc/prometheus
```

```

command:
  - "--config.file=/etc/prometheus/prometheus.yml"
  - "--storage.tsdb.path=/prometheus"
  - "--web.enable-lifecycle"

grafana:
  image: grafana/grafana
  ports:
    - "3000:3000"
  environment:
    - GF_SECURITY_ADMIN_PASSWORD=admin
  depends_on:
    - prometheus

node-exporter:
  image: prom/node-exporter
  ports:
    - "9100:9100"
  volumes:
    - /proc:/host/proc:ro
    - /sys:/host/sys:ro
    - /:/rootfs:ro
  command:
    - '--path.procfs=/host/proc'
    - '--path.sysfs=/host/sys'
    - '--collector.filesystem.ignored-mount-points="^/(sys|proc|dev|host|etc)($|/)"'

```

This docker-compose.yml file defines two services - Prometheus and Grafana. Prometheus will run on port 9090, and Grafana will run on port 3000. The Prometheus configuration file (prometheus.yml) and Grafana admin password are also specified.

Inside the monitoring directory, create directory for prometheus

```

mkdir prometheus
cd prometheus

```

## 4.Create Prometheus Configuration

Create a prometheus.yml file in the prometheus directory . This file will define the Prometheus configuration. Here's a basic example:

```
vim prometheus.yml
```

```
global:
  scrape_interval: 15s

scrape_configs:
  - job_name: 'prometheus'
    static_configs:
      - targets: ['localhost:9090']

  - job_name: 'node-exporter'
    static_configs:
      - targets: ['node-exporter:9100']
```

Save the file in the prometheus directory (which is mounted into the Prometheus container).

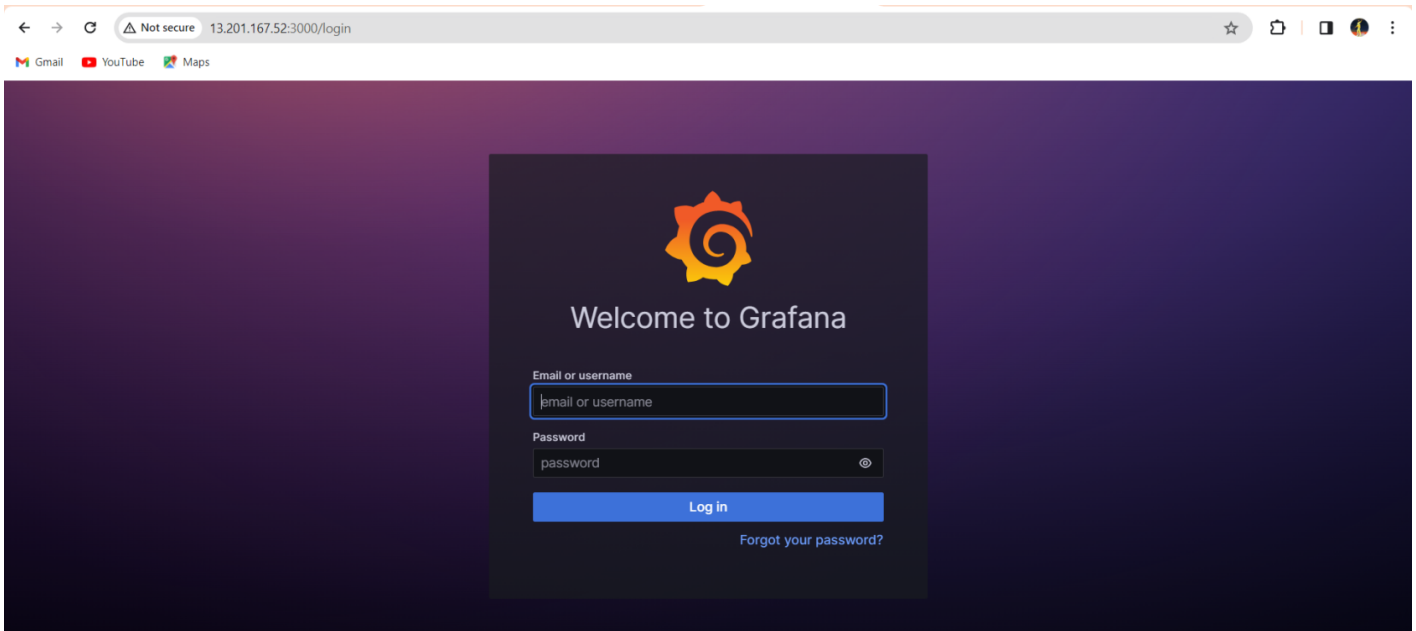
## 5.Run the Docker containers

```
docker-compose up -d
```

This command will download the necessary Docker images and start Prometheus and Grafana in the background.

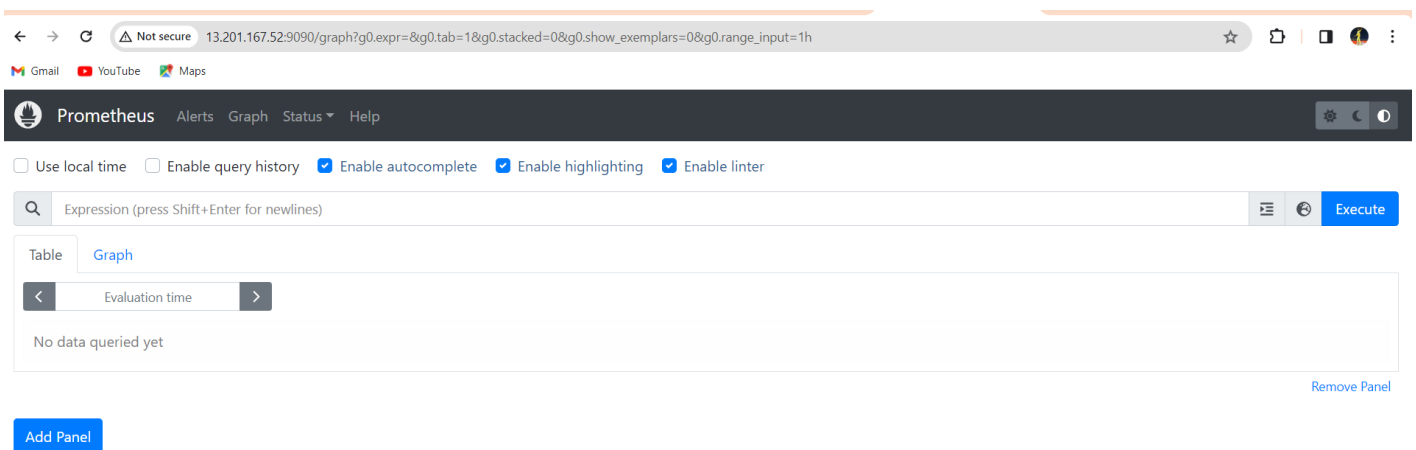
## 6.Access Grafana

Open your web browser and go to `http://localhost:3000` . Log in with the default credentials (admin/admin). Change the password as needed.



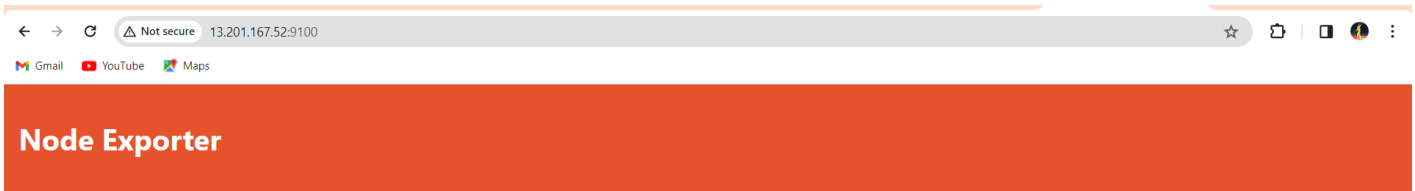
## 7.Access Prometheus

Open your web browser and go to `http://localhost: 9090`



## 8.Access node-exporter

Open your web browser and go to `http://localhost: 9100`



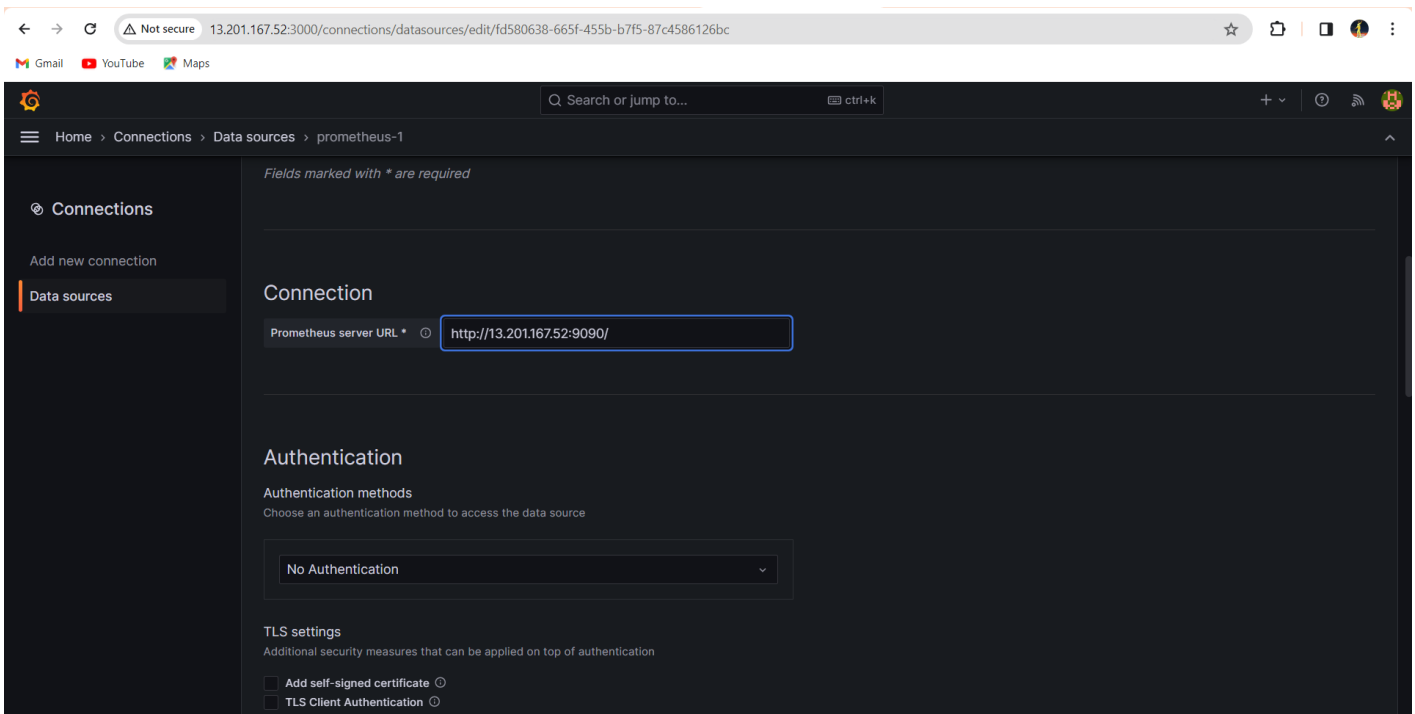
## Prometheus Node Exporter

Version: (version=1.7.0, branch=HEAD, revision=7333465abf9efba81876303bb57e6adb946041b)

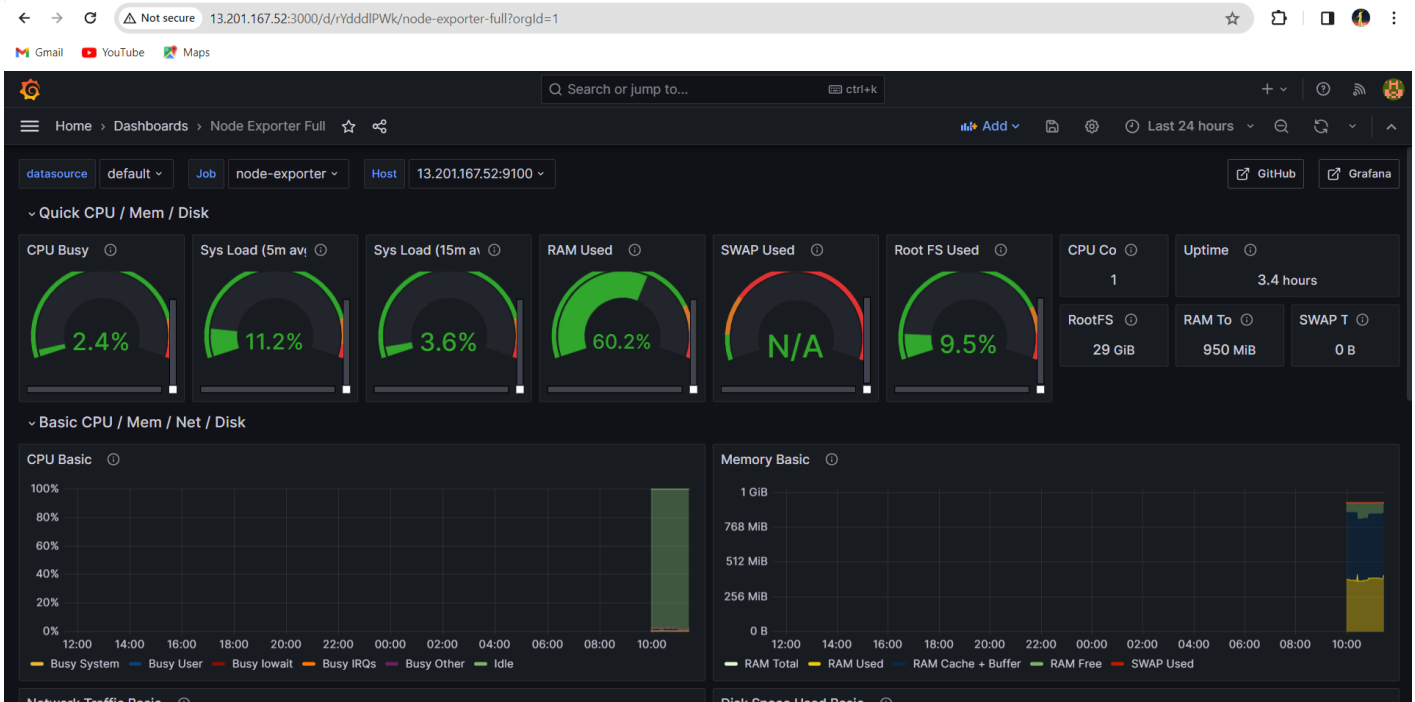
- [Metrics](#)

## 9.Add Prometheus as a Data Source

In Grafana, go to "Settings" -> "connection" --> "Data Sources" -> "Add your first data source"-> "Select Promethus." Choose Prometheus and set the URL to `http://prometheus: 9090` .



**10.Add the dashboard for Node-Exporter** In Grafana, (+) symbol on right side corner-> click -> "select import dashboard" -> For node-exporter (1860),want another dashboard means search in google,-> "give load"->"select promethus default"->give import"



## Set the email alerts using grafana

### 11.login docker grafana

Go to server, login docker grafana

```
docker exec -it -u root <cont_name> /bin/bash
```

### 12.Edit the grafana ini file

```
vim /etc/grafana/grafana.ini
```

Change the following line based on your needs

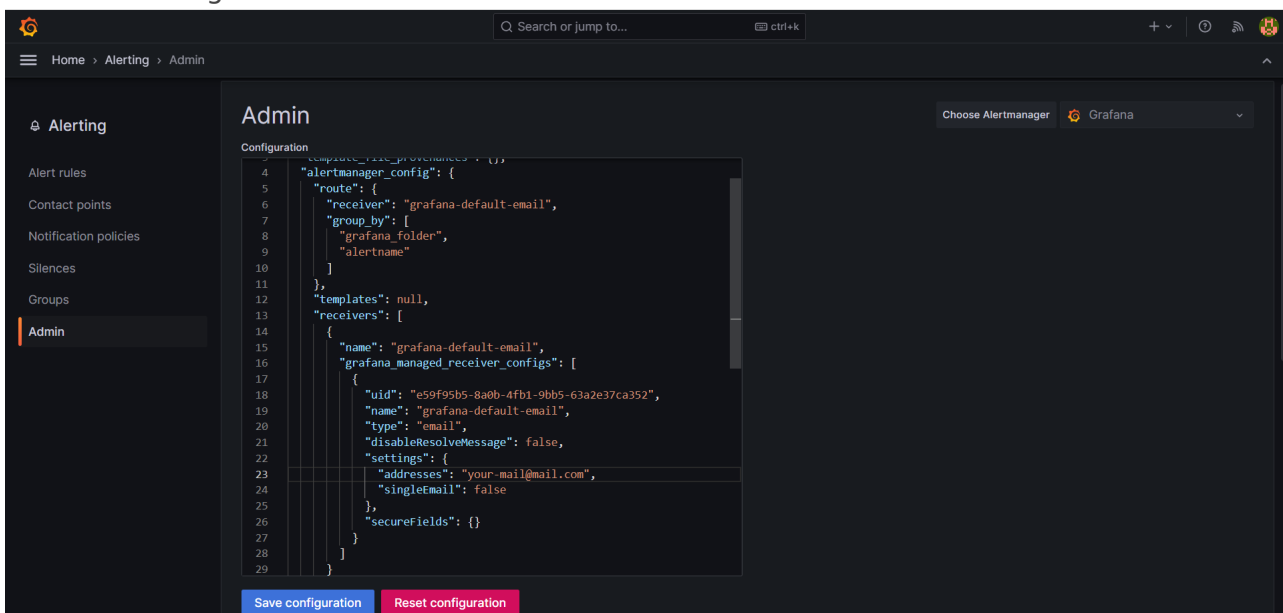
Go to smtp line, modify the changes

```
[smtp]
enabled = true
host = smtp.gmail.com: 587
user = your@gmail.com
# If the password contains # or ; you have to wrap it with triple quotes. Ex """"#password;""""
password = your_app_password
```

### 13.Set the alert in grafana

Go to settings-> "alerting" -> "new alert rule"

1. Enter alert rule name
2. Define query and alert condition
  - a.select the metrics
  - b.If you add another metrics means -> "click add query"-> add your query
3. Go to Expression section
  - a. In reduce (input give query part(A or B or others) -->in function part give (Last, mode: strict)
  - b. In Threshold(input give reduce part( B or C like that) --> Is above section give the time condition
4. Set evaluation behavior
  - a. Select folder or create a new folder
  - b.select or create Evaluation group
  - c. Set the pending time
5. Save the rule
6. Go to admin section in alerting  
Replace your receiving mail id  
Save the configuration

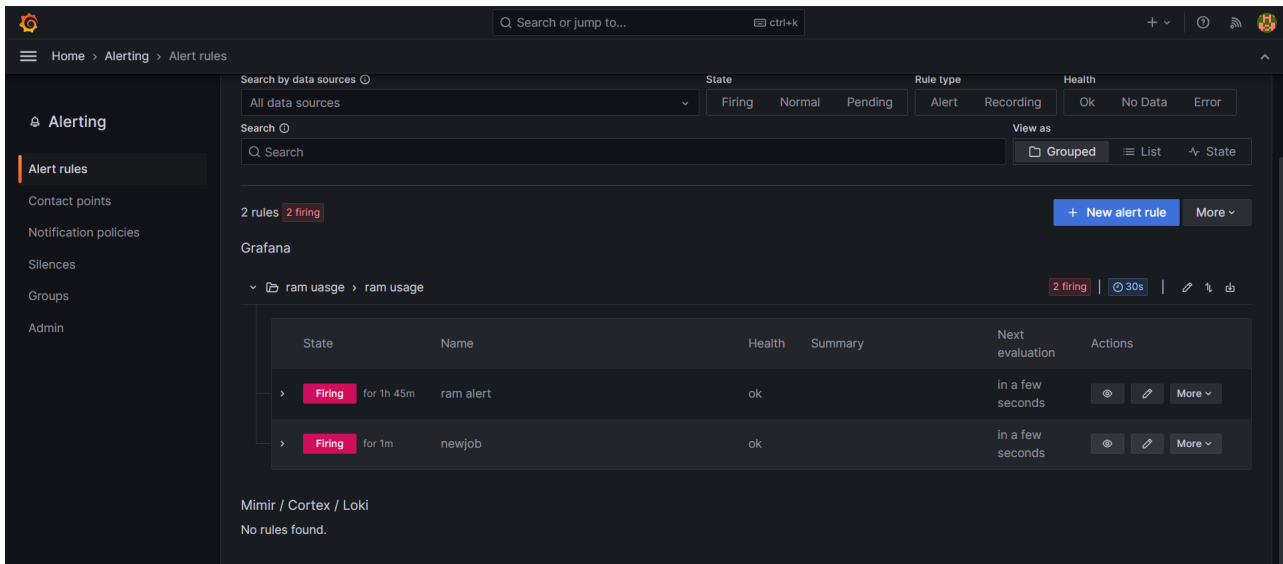


If the usages are increase, it will notify on your mail

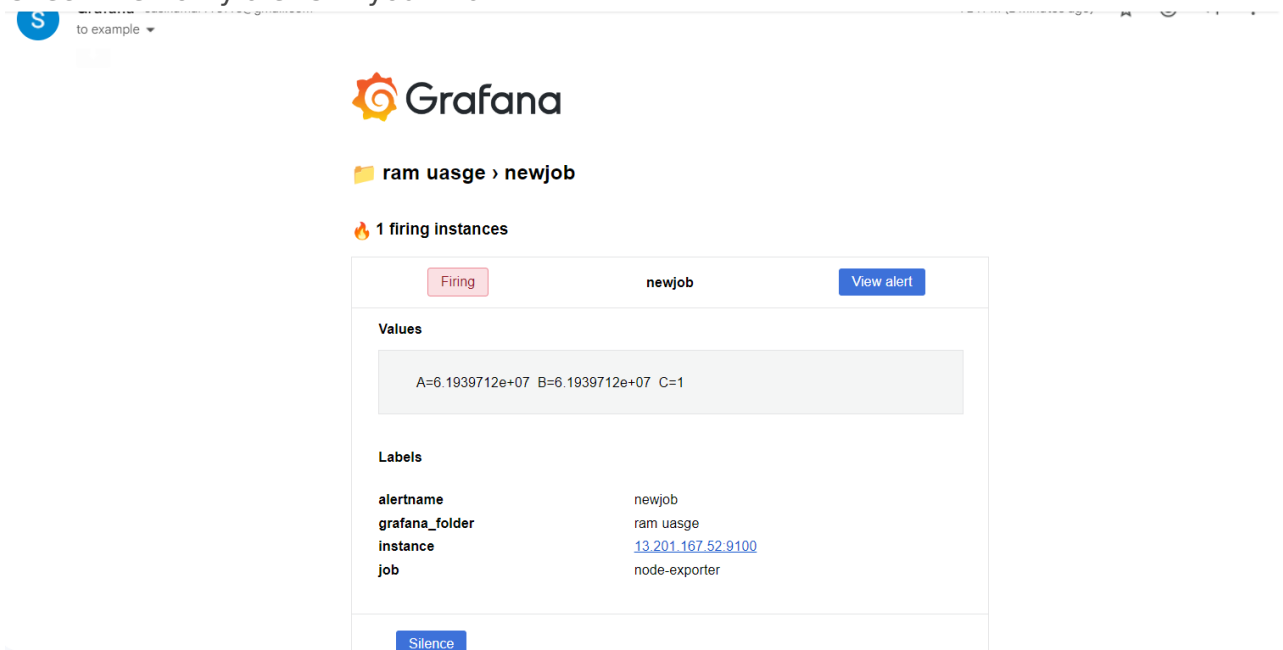
## 14.Check the mail

1. Check the alert will firing





## 2. Check the notify alerts in your mail



This is a basic setup, and you may need to customize configurations based on your specific needs and environment.

## Nagios Monitoring tool

### 1.Create a Directory

Create a directory to organize your Nagios configuration files. For example:

```
mkdir nagios-config
cd nagios-config
```

### 2.Create Docker Compose file

Create a docker-compose.yml file in the nagios-config directory:

```
vim docker-compose.yml
```

```
version: '3'
services:
  nagios:
    image: jasonrivers/nagios:latest
    ports:
      - "8080:80"
    environment:
      - NAGIOS_TIMEZONE=UTC
    volumes:
      - ./config:/opt/nagios/etc
```

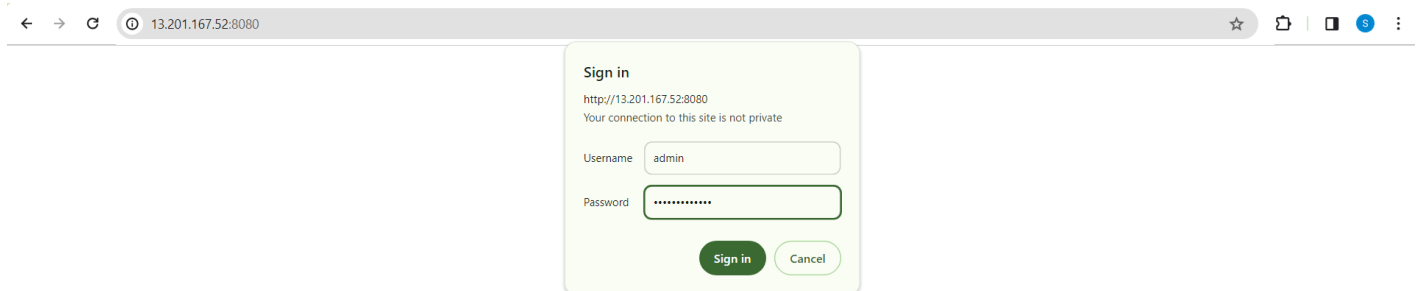
This configuration mounts a local directory (./config) into the Nagios container, allowing you to customize Nagios configurations.

### 3.Run Docker Compose

Run the following command in the nagios-config directory to start Nagios:

```
docker-compose up -d
```

**4.Access Nagios Web Interface** Open your web browser and go to `http://localhost:8080/nagios`. Log in with the credentials specified in the docker-compose.yml file (admin/adminpassword).



### 5.Check the services

In Nagios, go to services on left side

← → ↻

Not secure 54.147.175.125:8080

☆

🔖

🌐

⋮

Gmail

YouTube

Maps

# Nagios®

General

Home

Documentation

Current Status

Tactical Overview

Map (Legacy)

Hosts

Services

Host Groups

Summary

Grid

Service Groups

Summary

Grid

Problems

Services (Unhandled)

Hosts (Unhandled)

Network Outages

Quick Search:

Reports

Availability

Trends (Legacy)

Alerts

History

Summary

Histogram (Legacy)

Notifications

Event Log

System

Comments

Downtime

Process Info

Performance Info

Current Network Status

Last Updated: Thu Jan 4 11:40:45 UTC 2024

Updated every 50 seconds

Nagios® Core™ 4.4.14 - www.nagios.org

Logged in as nagiosadmin

View History For all hosts

View Notifications For All Hosts

View Host Status Detail For All Hosts

Host Status Totals

Up Down Unreachable Pending

1 0 0 0

All Problems All Types

0 1

Service Status Totals

Ok Warning Unknown Critical Pending

2 1 0 0 4

All Problems All Types

1 7

Service Status Details For All Hosts

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	Current Load	OK	01-04-2024 11:38:42	0d 0h 2m 45s+	1/4	OK - load average: 0.01, 0.12, 0.09
	Current Users	OK	01-04-2024 11:39:25	0d 0h 2m 45s+	1/4	USERS OK - 0 users currently logged in
	HTTP	WARNING	01-04-2024 11:40:08	0d 0h 0m 37s	1/4	HTTP WARNING: HTTP/1.1 401 Unauthorized - 695 bytes in 0.001 second response time
	PING	PENDING	N/A	0d 0h 2m 45s+	1/4	Service check scheduled for Thu Jan 4 11:40:51 UTC 2024
	Root Partition	PENDING	N/A	0d 0h 2m 45s+	1/4	Service check scheduled for Thu Jan 4 11:41:34 UTC 2024
	Swap Usage	PENDING	N/A	0d 0h 2m 45s+	1/4	Service check scheduled for Thu Jan 4 11:42:17 UTC 2024
	Total Processes	PENDING	N/A	0d 0h 2m 45s+	1/4	Service check scheduled for Thu Jan 4 11:43:00 UTC 2024

Results 1 - 7 of 7 Matching Services

54.147.175.125:8080/nagios/cgi-bin/status.cgi?host=all

Page Tour

You want add the remote host means modify the files based on needs

```
vi /path/to/nagios-config/config/etc/file.cfg
```

## Revision #24

Created Wed, Jan 3, 2024 11:34 AM by [sasi](#)

Updated Tue, Feb 20, 2024 10:23 AM by [sasi](#)