Setting Up Prometheus & Grafana

1. First Clone the git repo mentioned below to get all of the Docker-compose.yml and Prometheus.yml and other config files.

git clone https://github.com/ratr45/Docker-Monitoring-Service.git

```
ubuntu@ip-172-31-32-116:~$ sudo su
root@ip-172-31-32-116:/home/ubuntu# git clone https://github.com/ratr45/Docker-Monitoring-Service.git
Cloning into 'Docker-Monitoring-Service'...
remote: Enumerating objects: 820, done.
remote: Counting objects: 100% (820/820), done.
remote: Compressing objects: 100% (334/334), done.
remote: Total 820 (delta 475), reused 813 (delta 468), pack-reused 0
Receiving objects: 100% (820/820), 5.79 MiB | 27.58 MiB/s, done.
Resolving deltas: 100% (475/475), done.
root@ip-172-31-32-116:/home/ubuntu#
```

i-01f2abbdb0d592e12 (Manager)

PublicIPs: 176.32.82.62 PrivateIPs: 172.31.32.116

ls

(so this directory has all the components that are required to run our docker monitoring)

```
root@ip-172-31-32-116:/home/ubuntu# ls
Docker-Monitoring-Service
root@ip-172-31-32-116:/home/ubuntu#
```

i-01f2abbdb0d592e12 (Manager)

PublicIPs: 176.32.82.62 PrivateIPs: 172.31.32.116

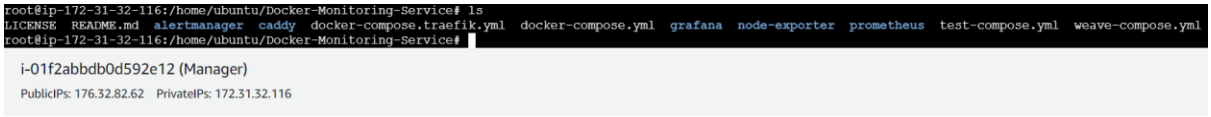
cd Docker-Monitoring-Service

```
root@ip-172-31-32-116:/home/ubuntu# cd Docker-Monitoring-Service/
root@ip-172-31-32-116:/home/ubuntu/Docker-Monitoring-Service#
```

i-01f2abbdb0d592e12 (Manager)

PublicIPs: 176.32.82.62 PrivateIPs: 172.31.32.116

ls



2. Initialize a docker swarm which you can use for deploying the various tools

docker swarm init

Use the join token commands given when you initialize a new swarm and use it on the nodes you want to work with.

docker swarm join --token

come back to manager instance (we have two nodes)

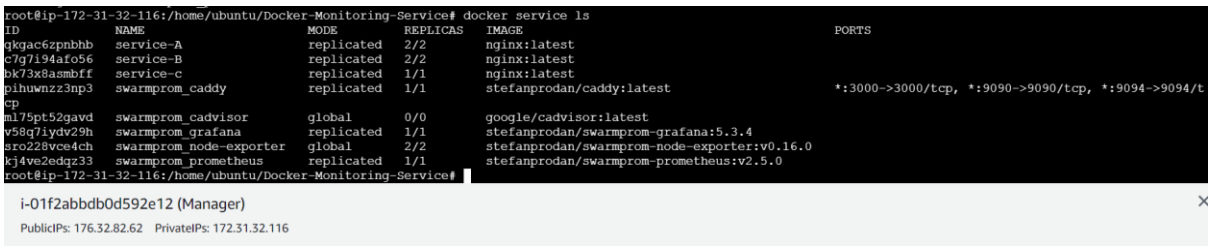
docker node ls

3. Now Deploy the monitoring services using docker stack deploy using the command below

deploy stack deploy -c docker-compose.yml swarmprom

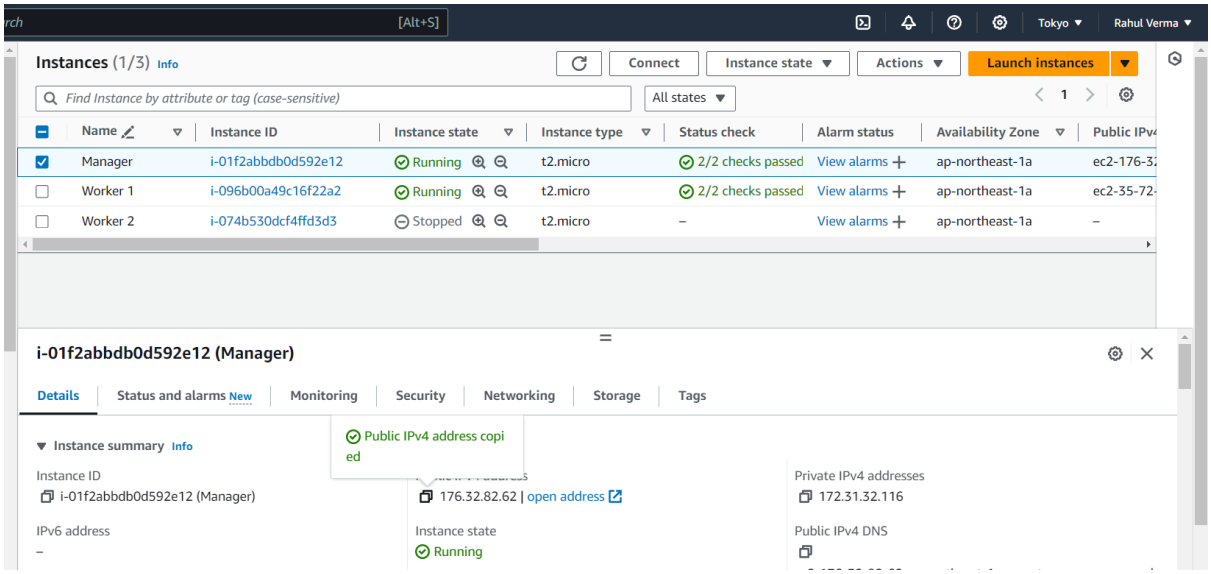
To check what services are running

docker service ls

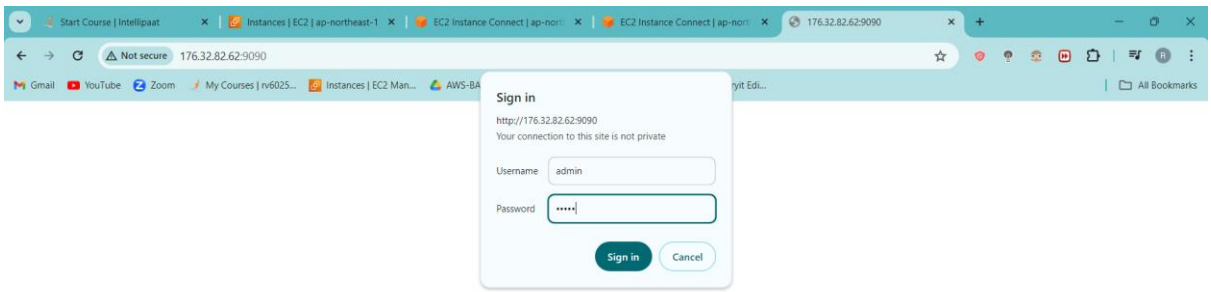


4. Head to the browser and type in the public IP address of the manager node with the port at which Prometheus is mapped at. This should open up Prometheus for you.

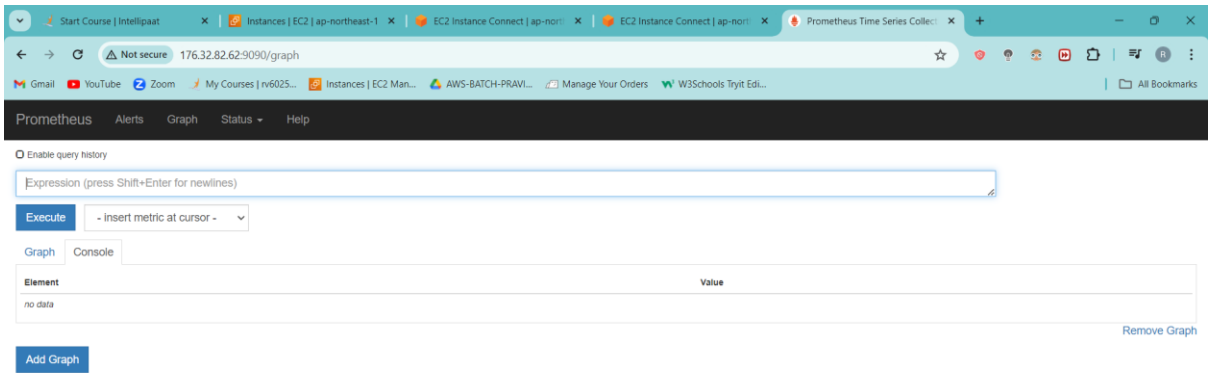
Copy manager ip address



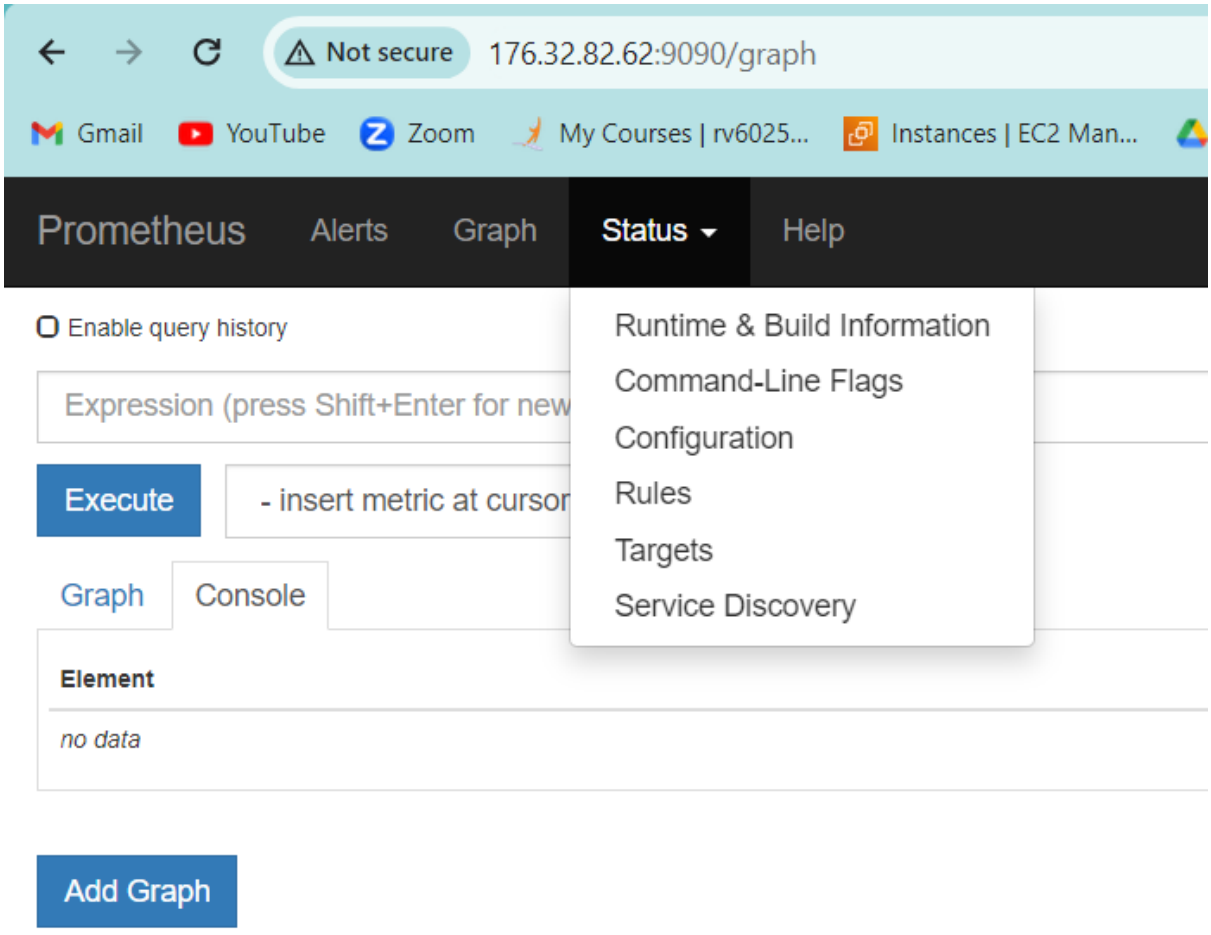
<Manager ip>:9090



Prometheus-

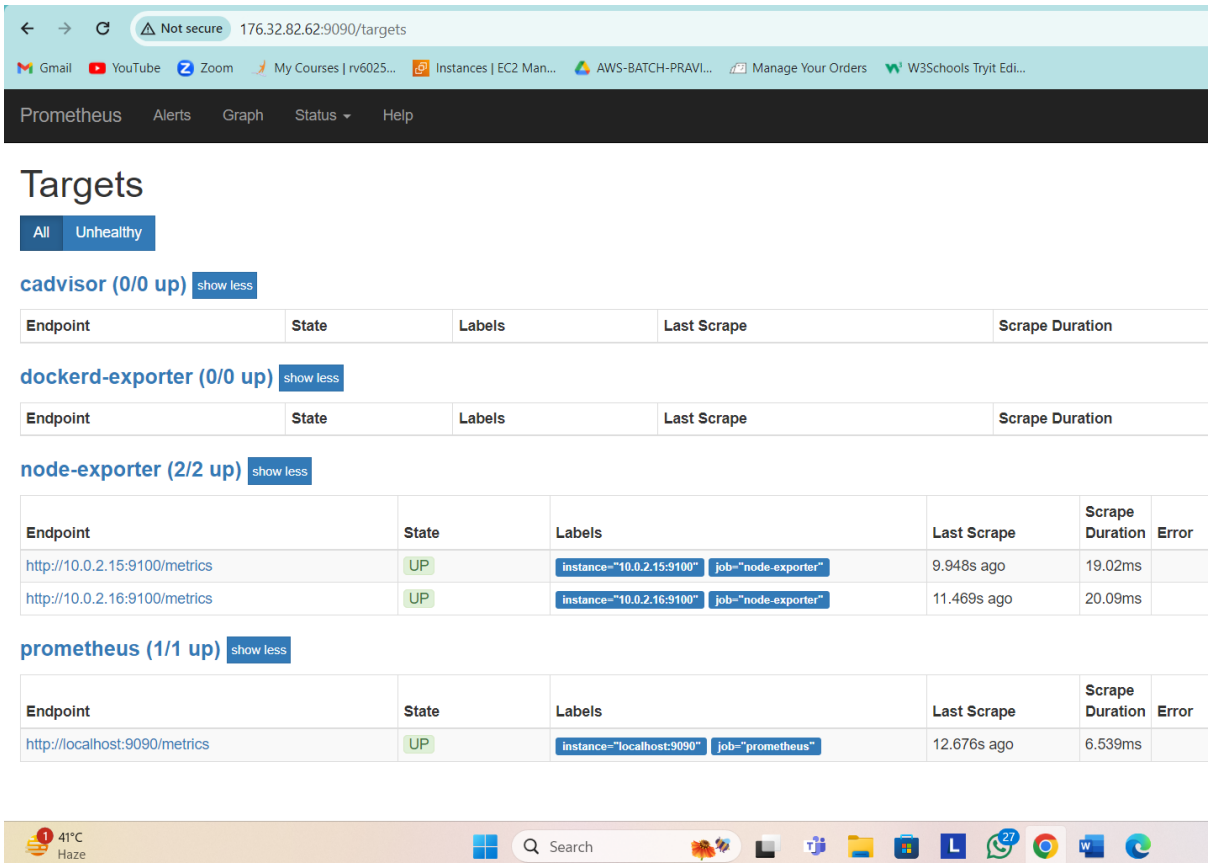


5. Now open up targets using the drop down from status.



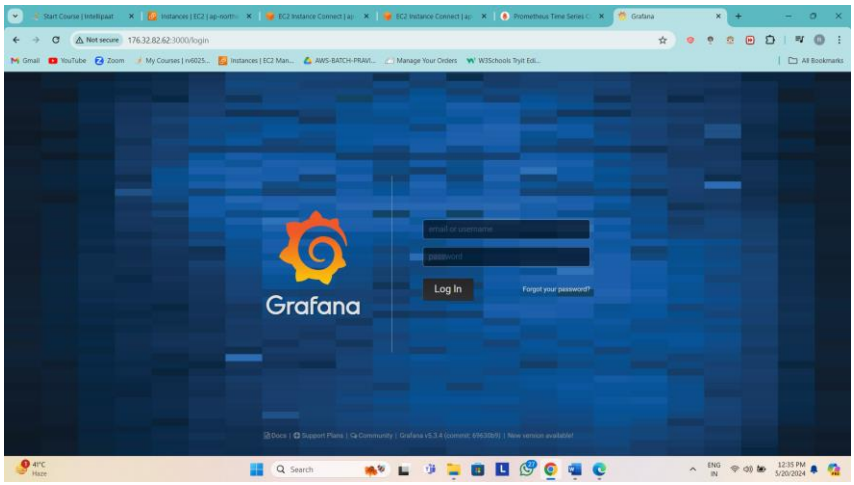
Here we will verify if we are receiving data from the different parts of our services and sources.

As you can see the state is ‘UP’ which means Prometheus is able to receive data from it.

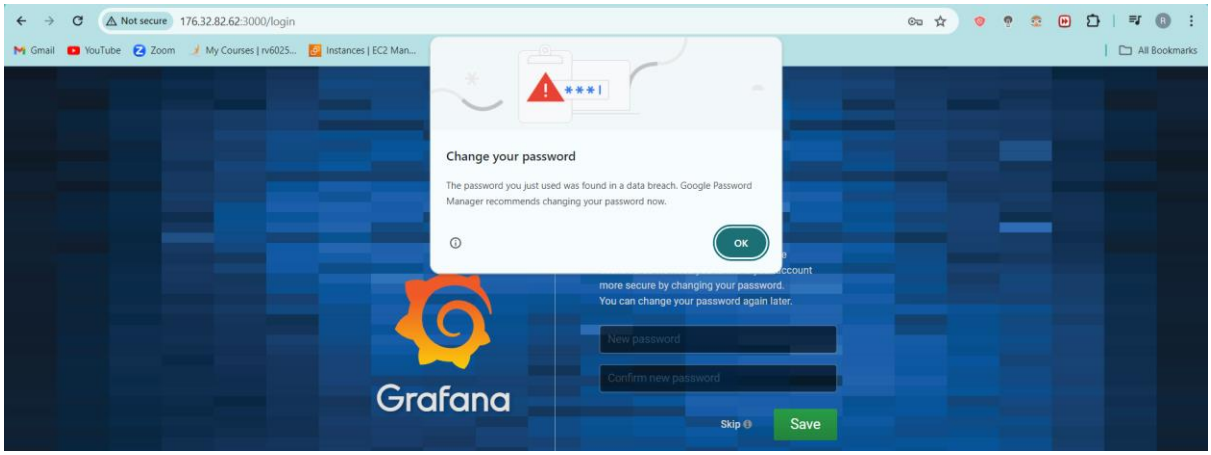


6. Now open up Grafana by accessing port 3000 of the same manage node.

<manager_ip>:3000

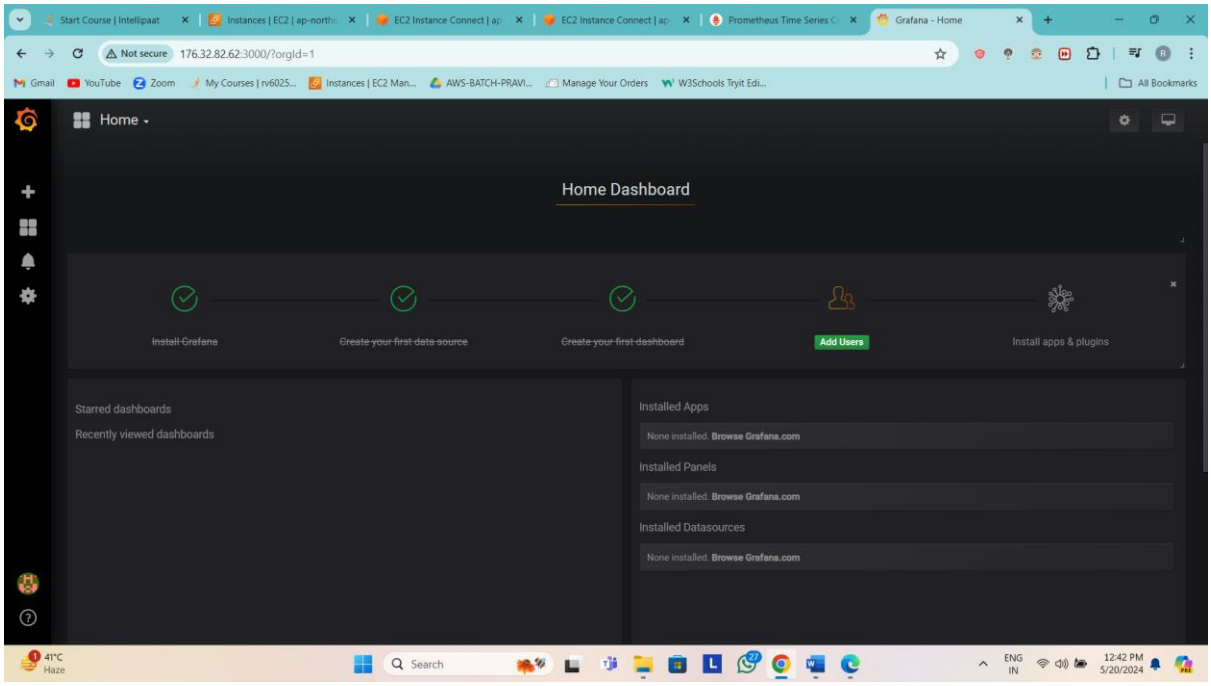


Choose a new and strong password for yourself

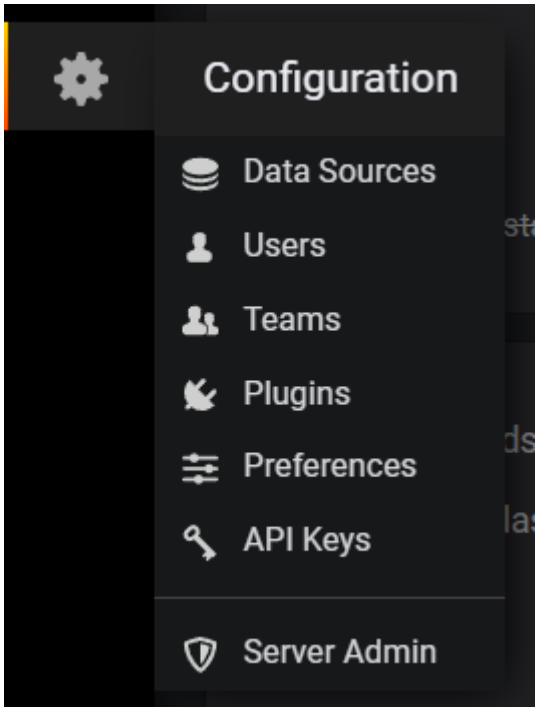


Password: RahulGrafana@123#

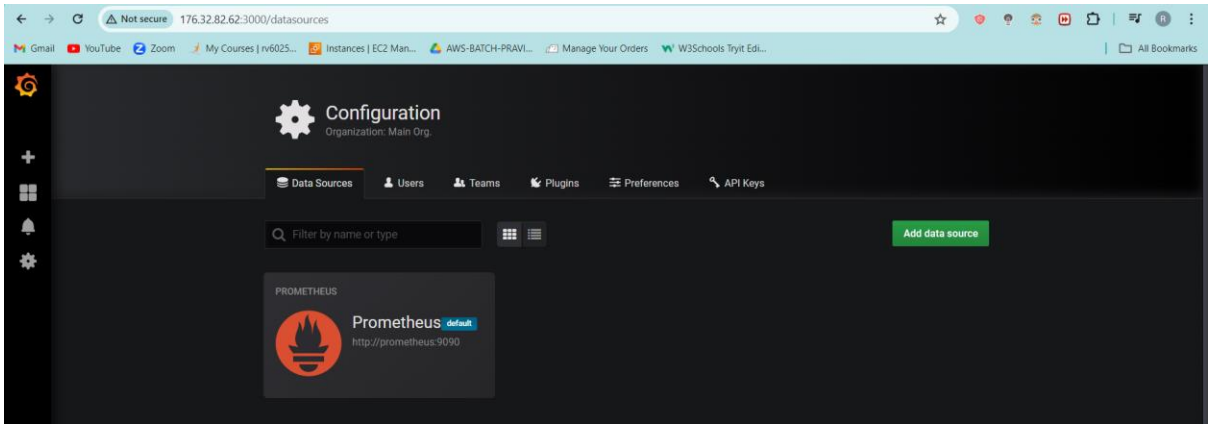
This the dashboard you will see unless they have updated UI for newer version of grafana



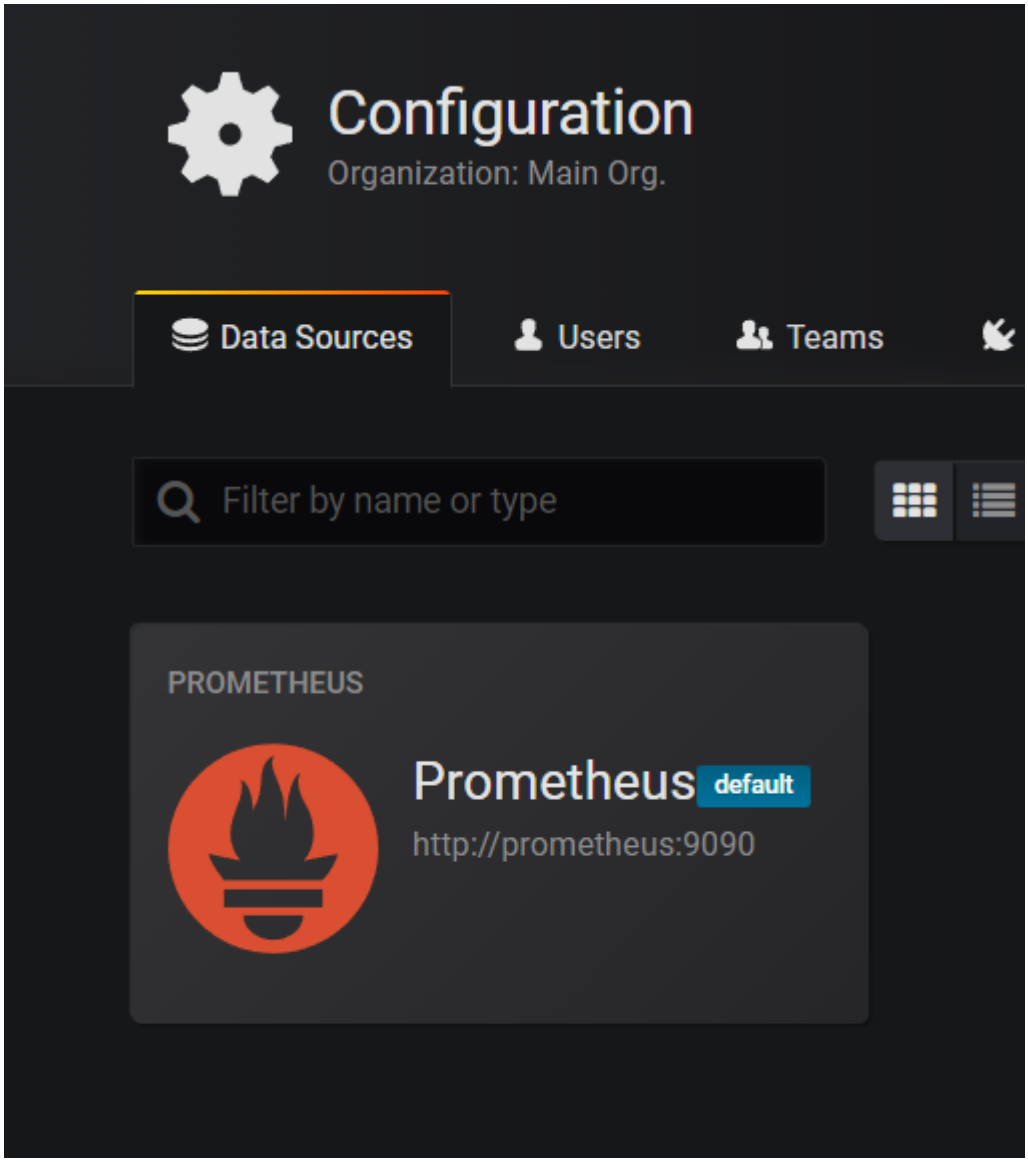
7. Head to configuration ->data sources from the side menu.



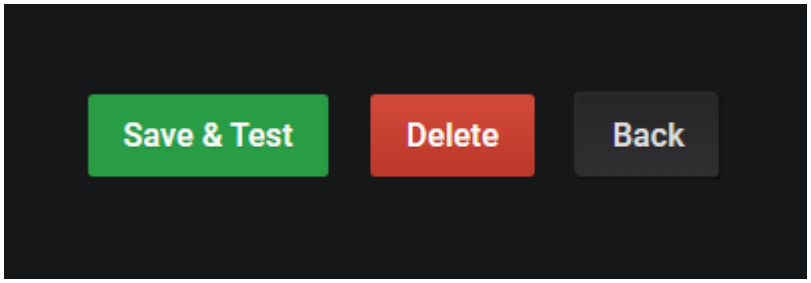
Here you can add any data source that Grafana supports, but Prometheus will already be added as we had configured it earlier in our config file for grafana.



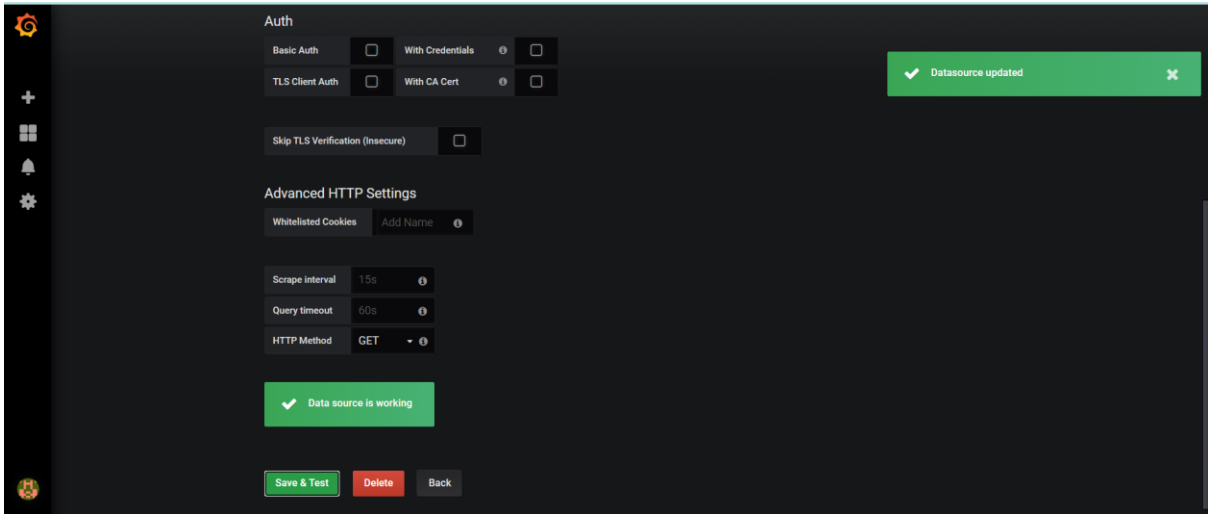
Click on Prometheus (default)



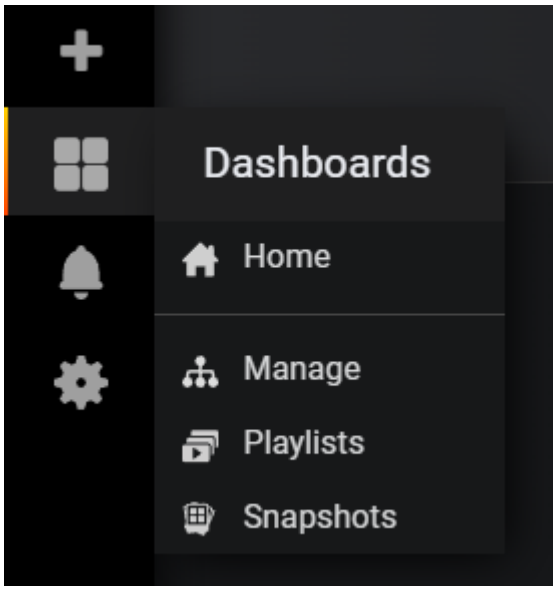
Click on save and test



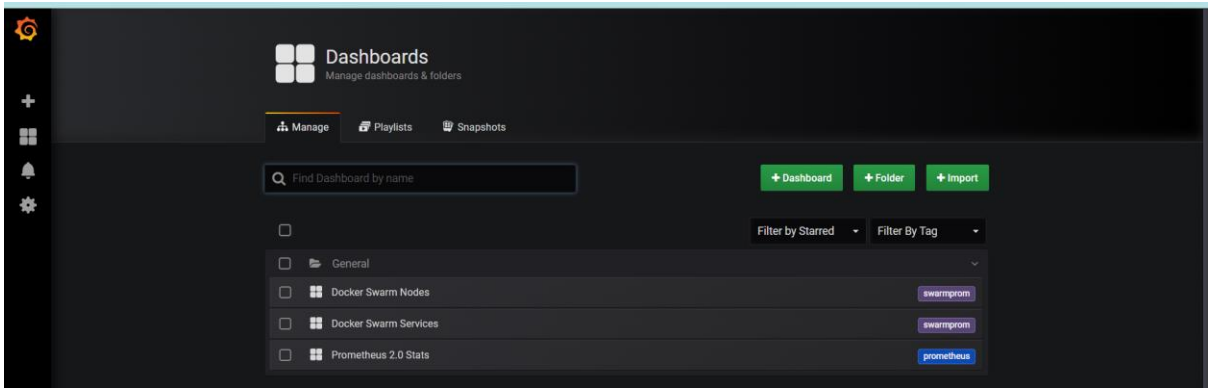
So our data source is working



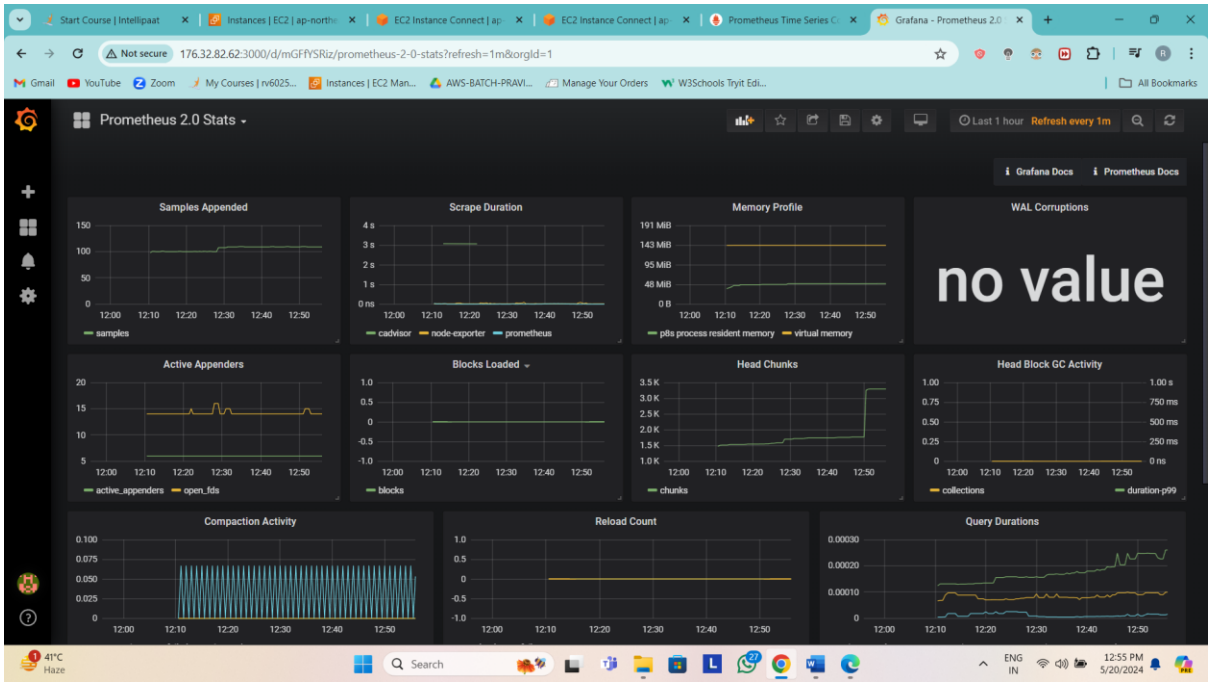
8. now go click on back and Head to dashboards – manage



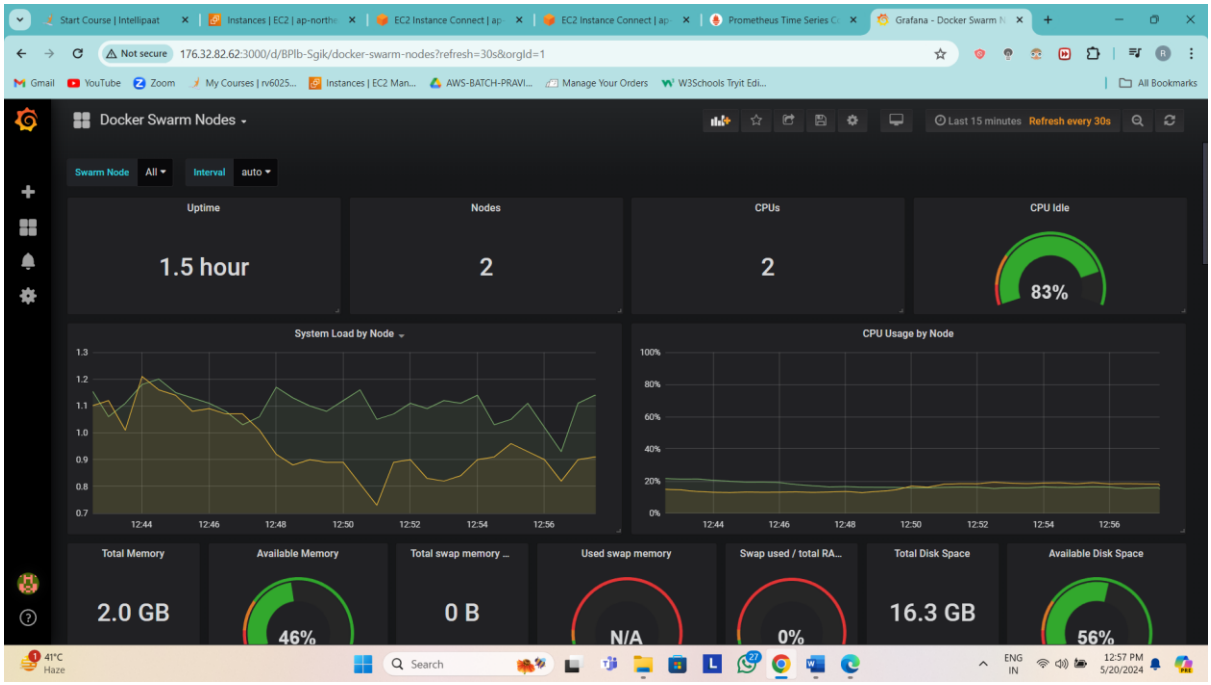
Here you will see three dashboards, normally you would have to create your own but we had already configured our Grafana to include these. Check all of them out.



9. This is the graph for Prometheus metrics.



10. This is the dashboard for Docker swarm Nodes



11. This is the Dashboard for docker swarm services