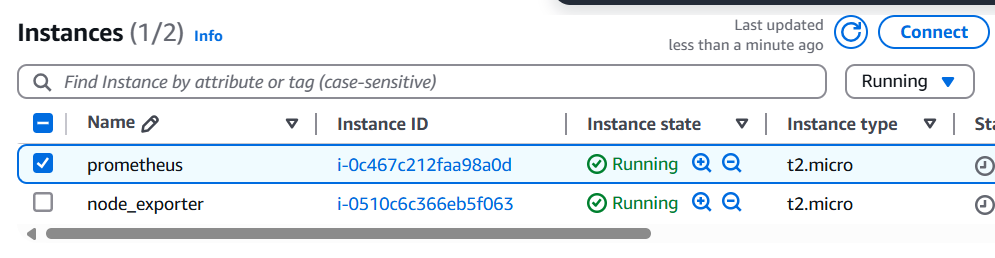
**Monitoring Task**

**Task Description:**

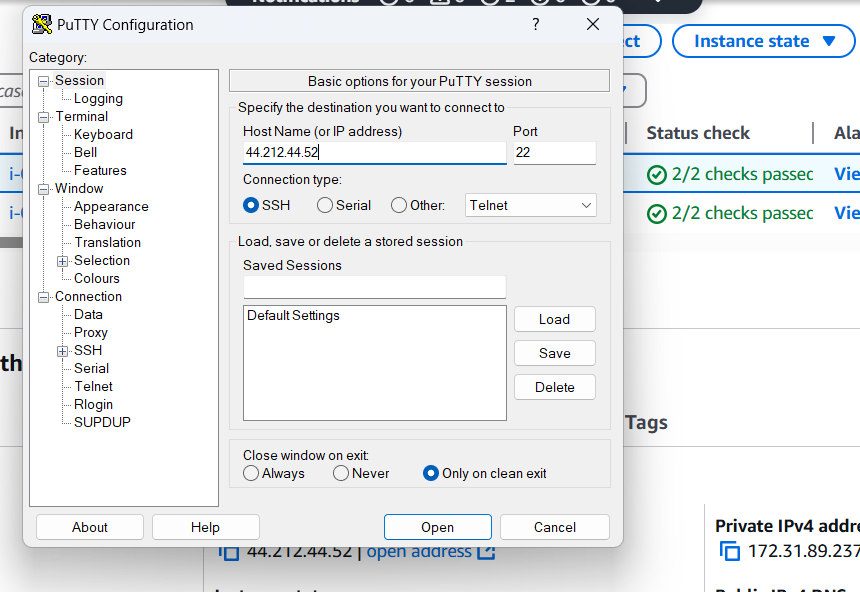
**Install Prometheus and Grafana on a Linux EC2 machine, connect Prometheus to Grafana, and create a dashboard to view metrics.**

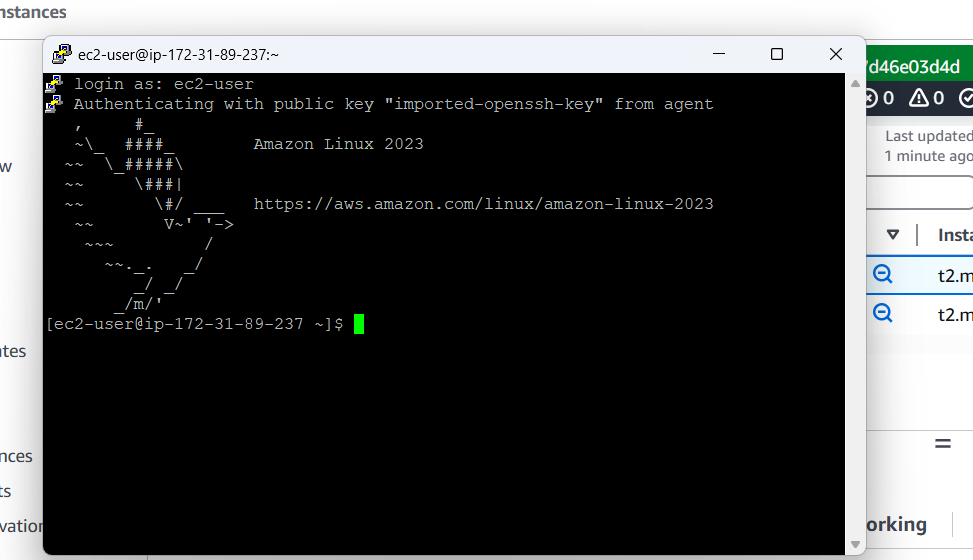
Explanation:

1. Launch 2 EC2 Instances, one- Prometheus, another – node\_exporter



1. Connect the prometheus using putty, copy the ipv4 address





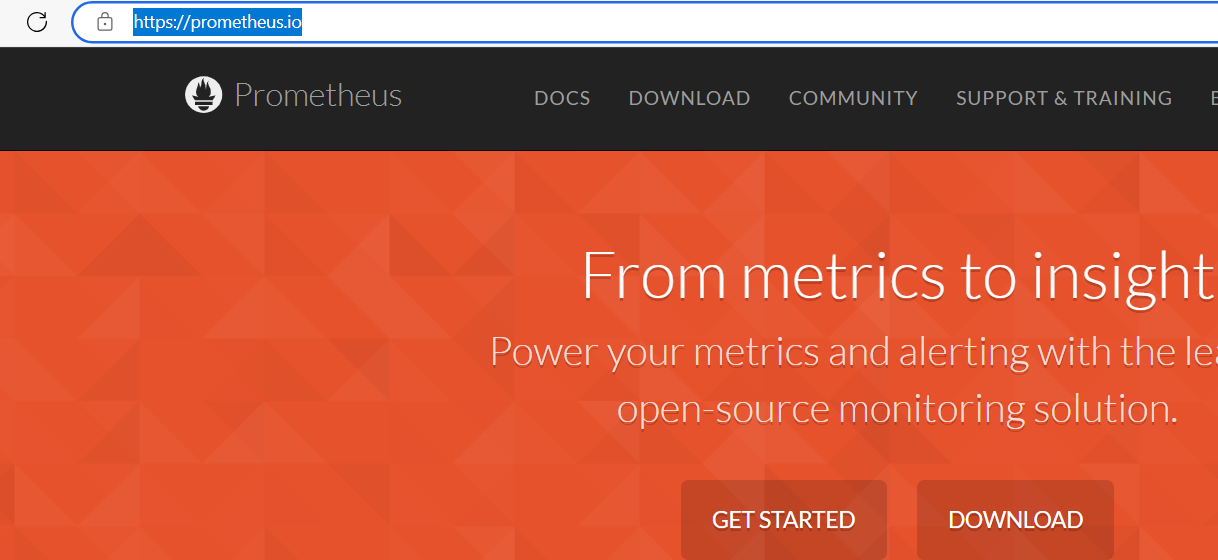
1. Change to switch user using sudo su -



To install Prometheus, go to opt directory using cd /opt

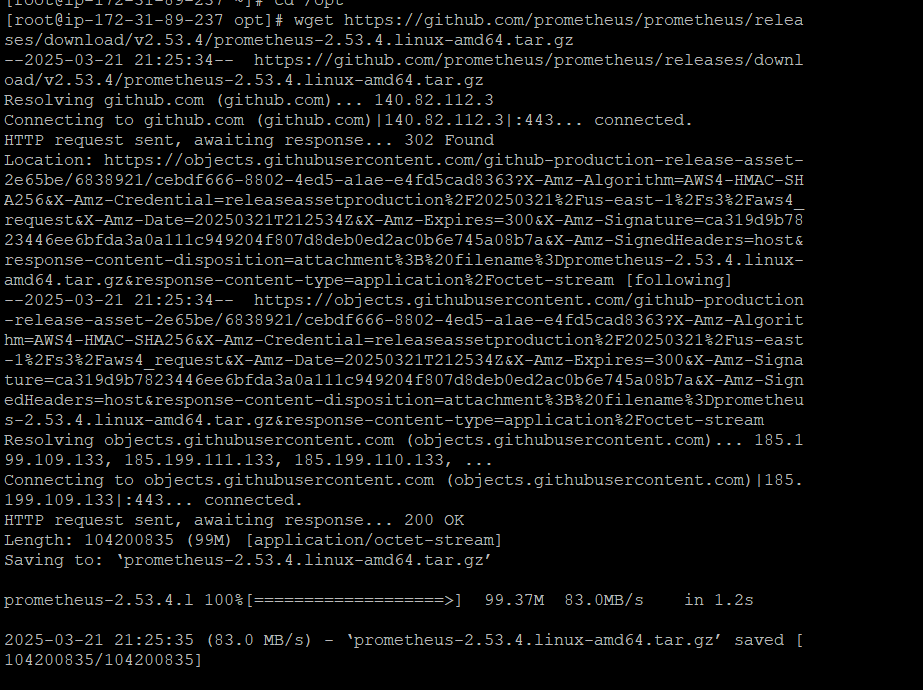


Visit the website : [Prometheus - Monitoring system & time series database](https://prometheus.io/)



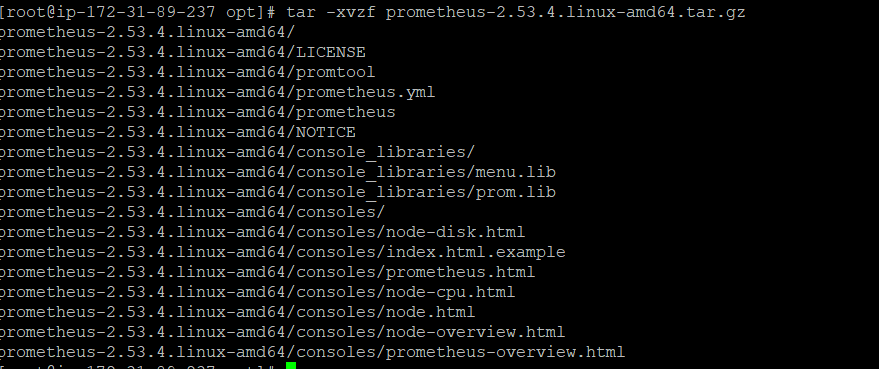
Goto download, and copy the link to download in linux machine and use

wget https://github.com/prometheus/prometheus/releases/download/v2.53.4/prometheus-2.53.4.linux-amd64.tar.gz

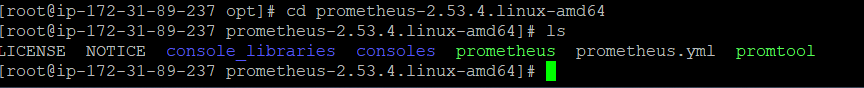


1. Since it is in tar format, extract the file using

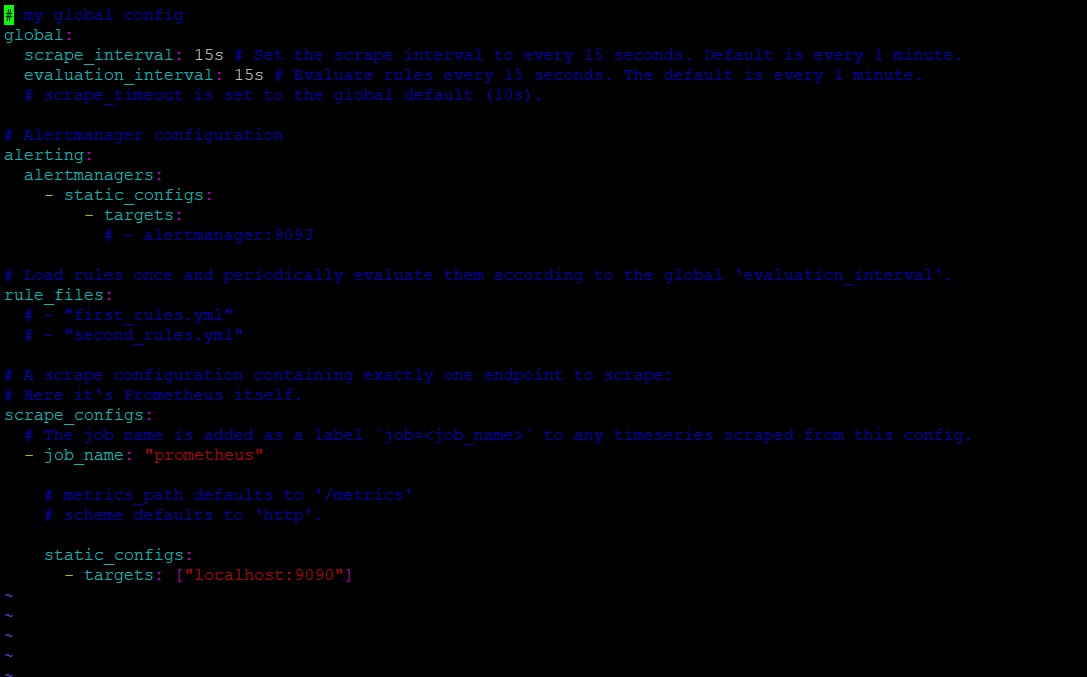
tar -xvzf prometheus-2.53.4.linux-amd64.tar.gz



cd prometheus-2.53.4.linux-amd64



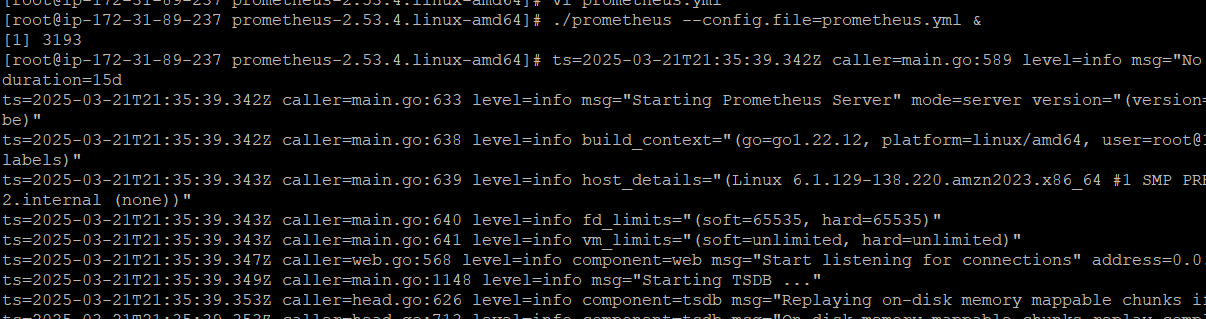
vi Prometheus.yml



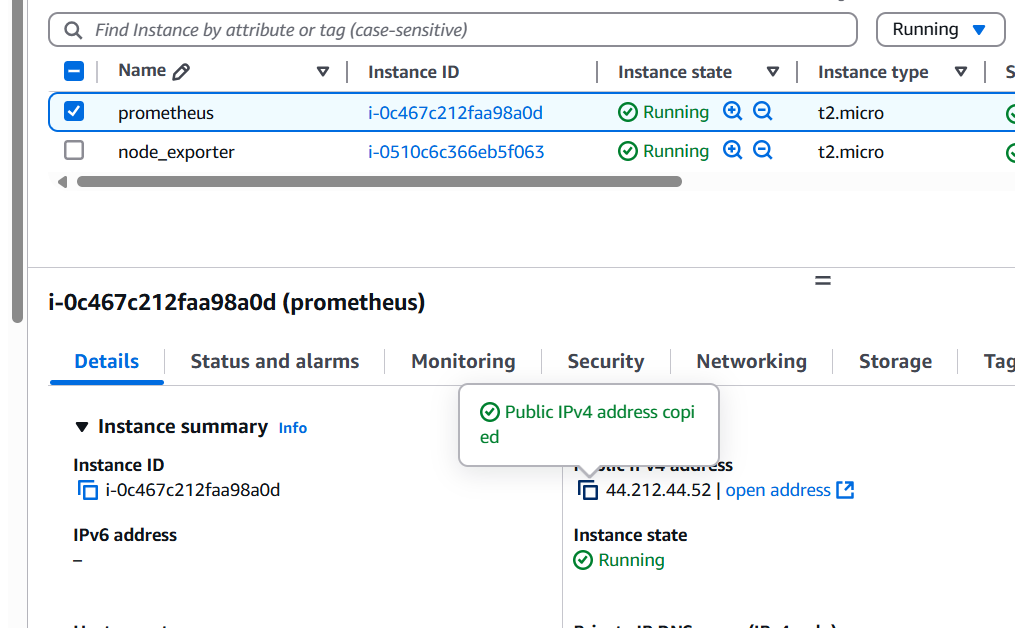
The local host is 9090.

1. Run the Prometheus

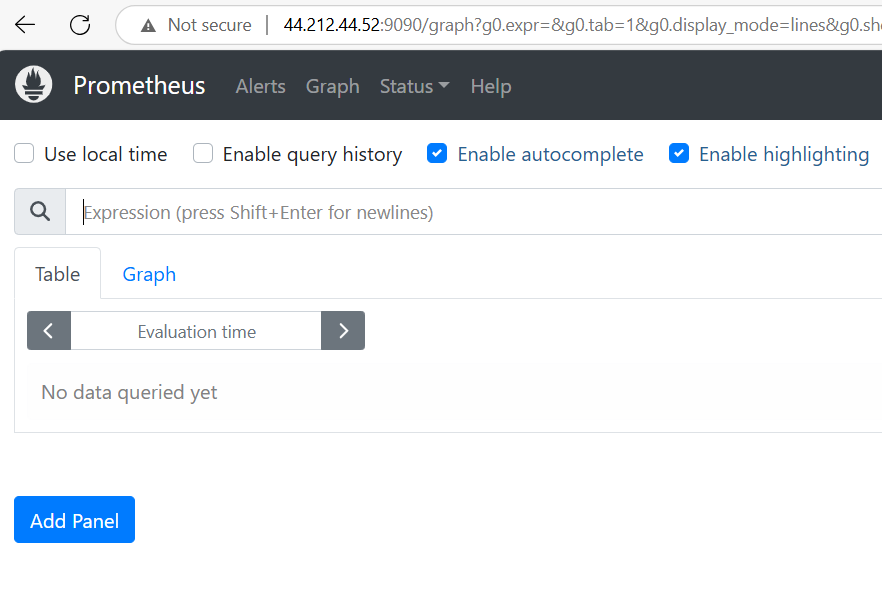
./prometheus --config.file=prometheus.yml & - & is used since it will run in background as well



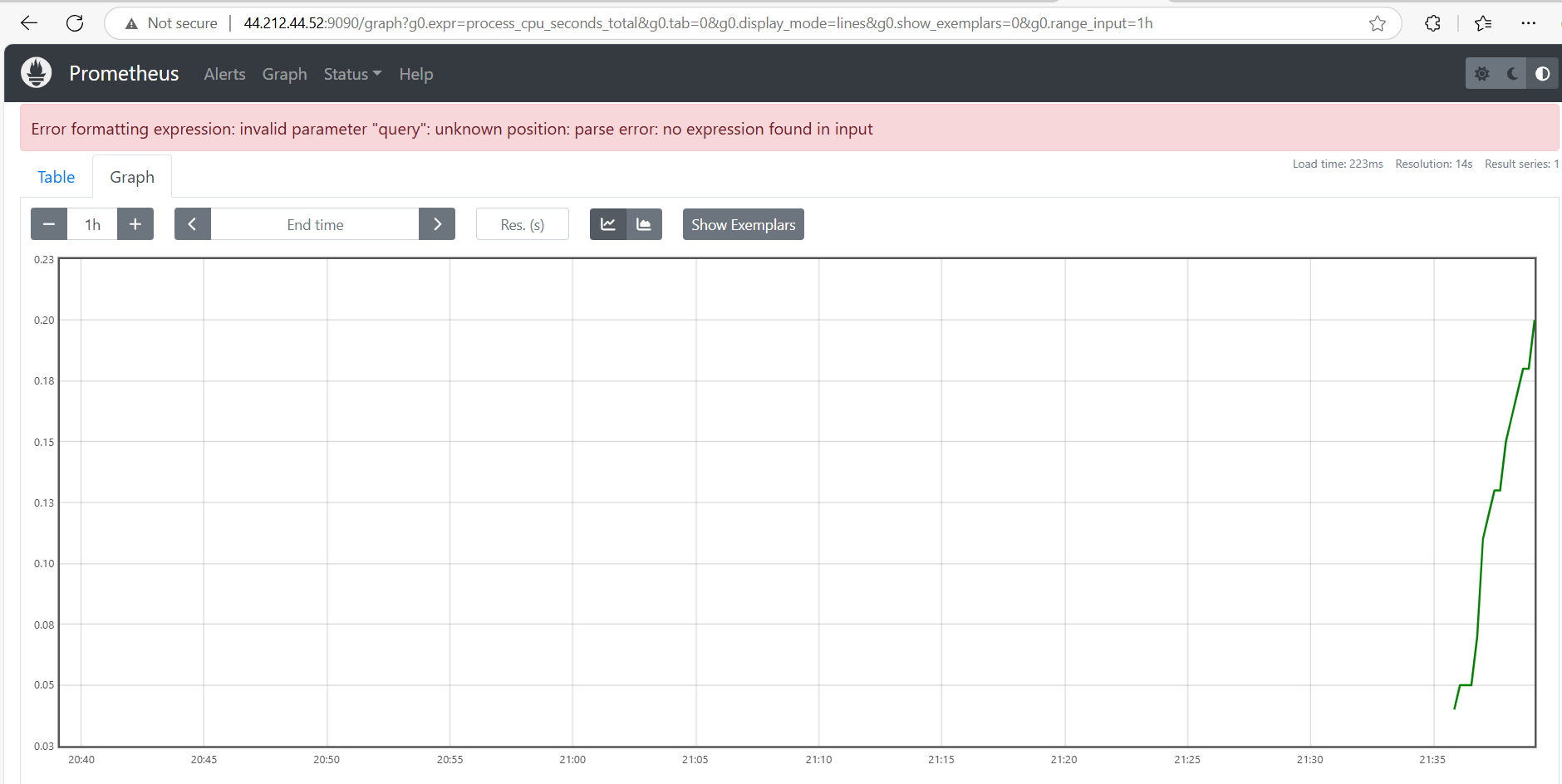
Copy the Prometheus public ip 44.212.44.52



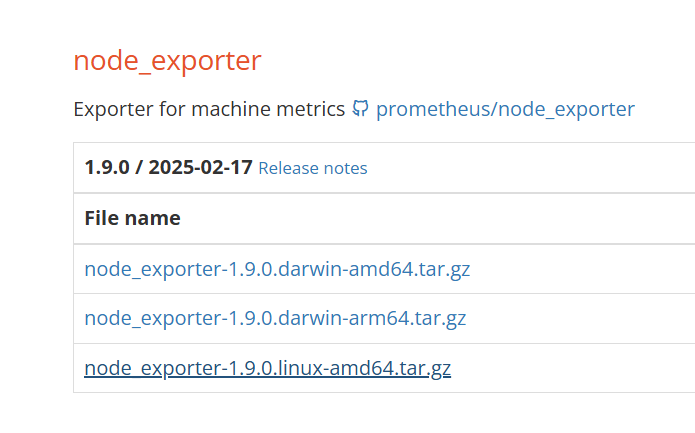
http:// 44.212.44.52:9090



Use this process\_cpu\_seconds\_total and press execute

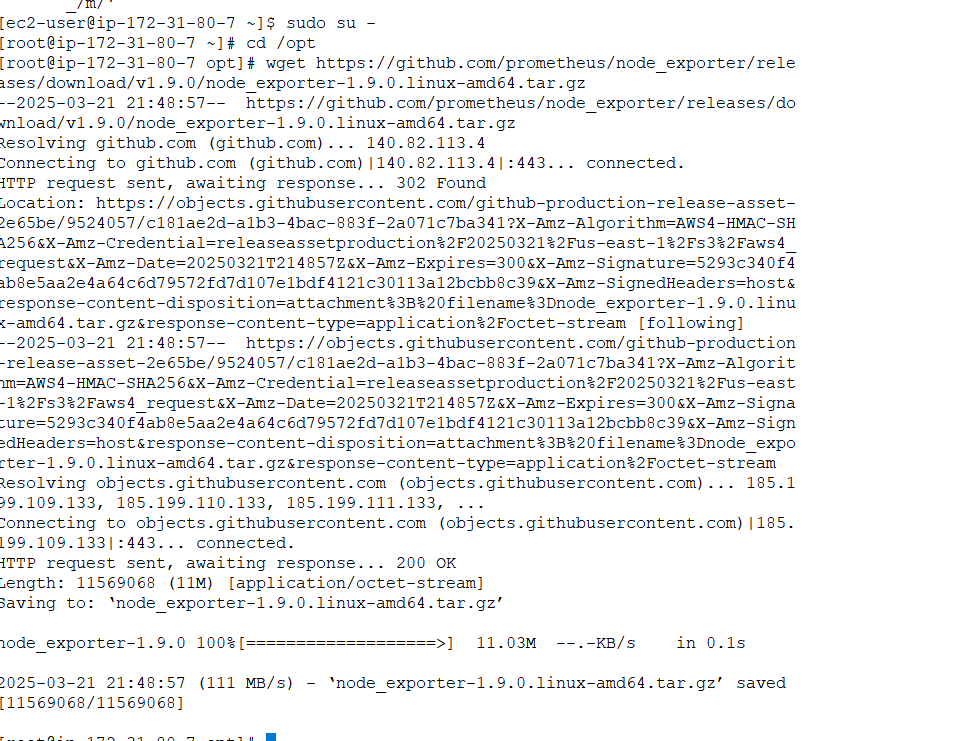


1. Connect the node\_explorer instance and install node exporter in the same way.



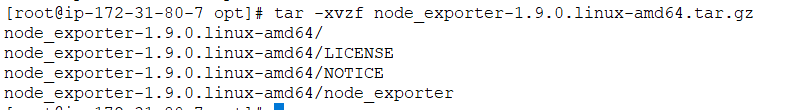
Copy the link use

Wget <https://github.com/prometheus/node_exporter/releases/download/v1.9.0/node_exporter-1.9.0.linux-amd64.tar.gz>

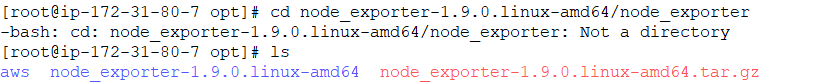


Extract using

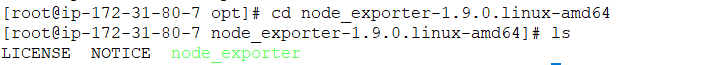
tar -xvzf node\_exporter-1.9.0.linux-amd64.tar.gz



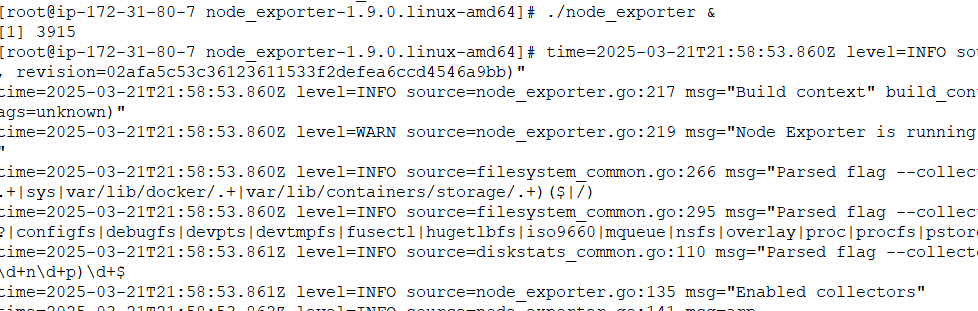
cd node\_exporter-1.9.0.linux-amd64/node\_exporter



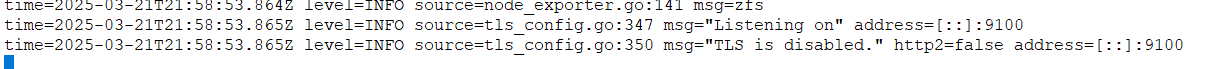
cd node\_exporter-1.9.0.linux-amd64



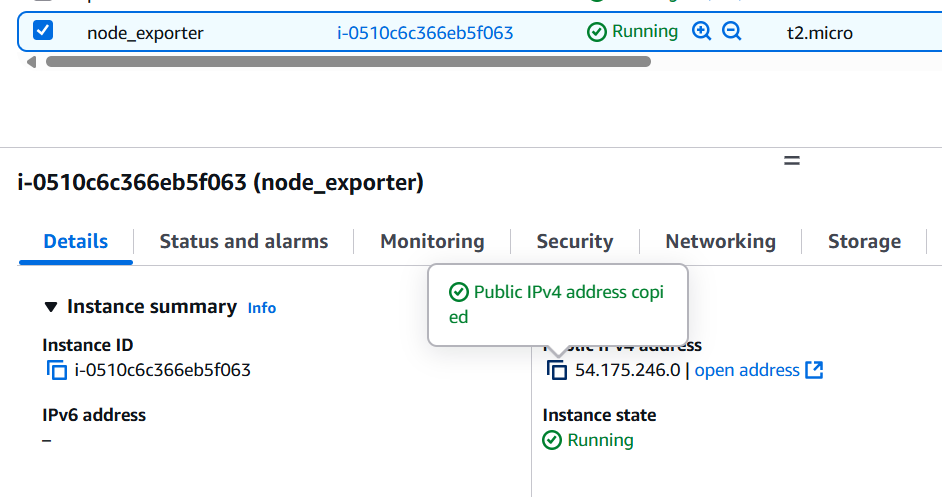
Run using ./node\_expoter &

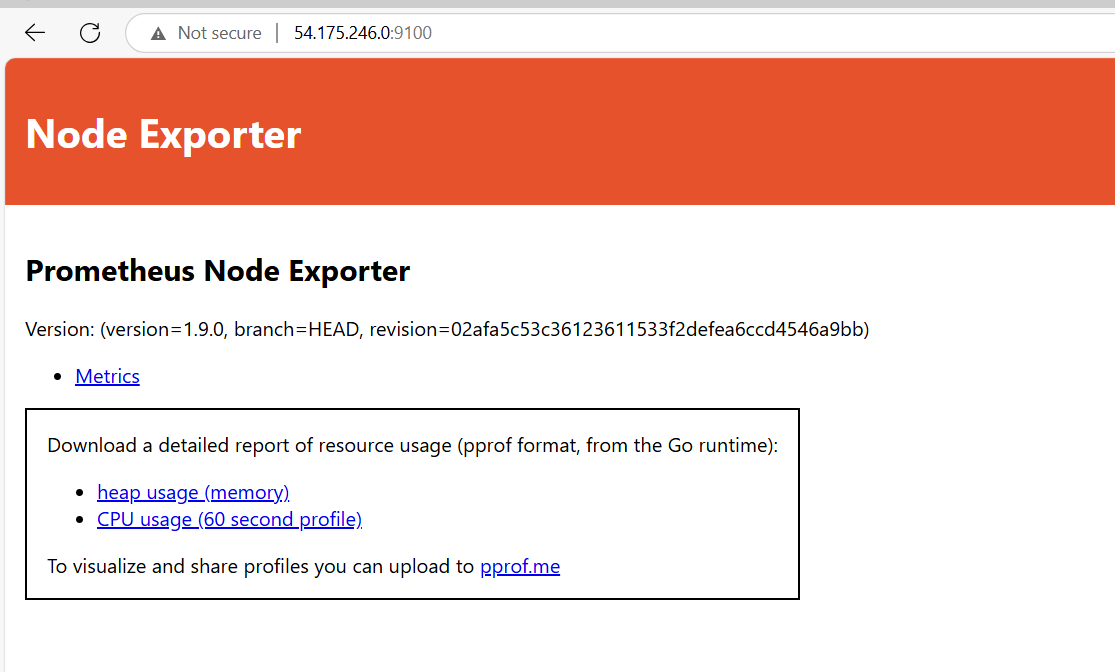


The port is 9100



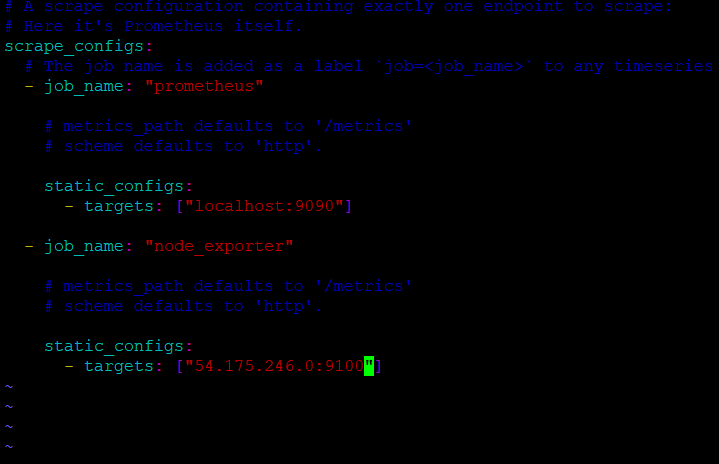
Copy the node\_exporter instance ip to check whether it is running





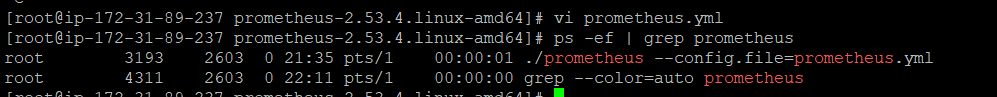
Now both promethus and node exporter is installed in both instances respectively. Now include this node exporter in promethus yaml file.

1. Add the job in Prometheus.yaml

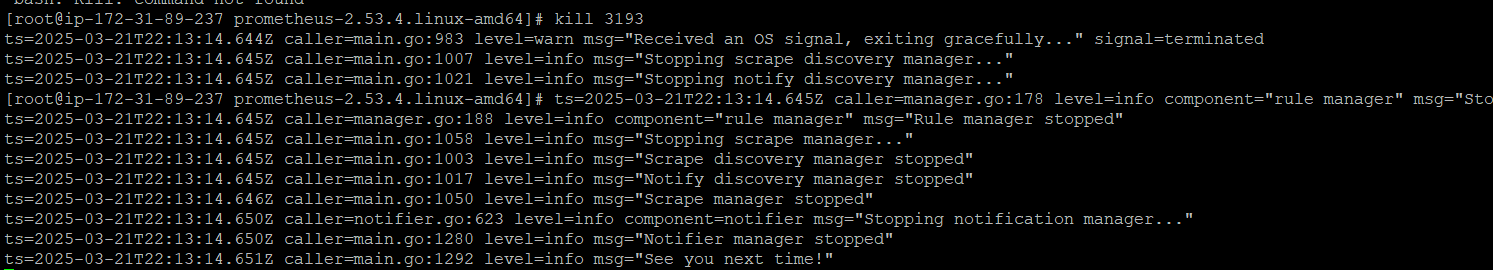


To restart use :

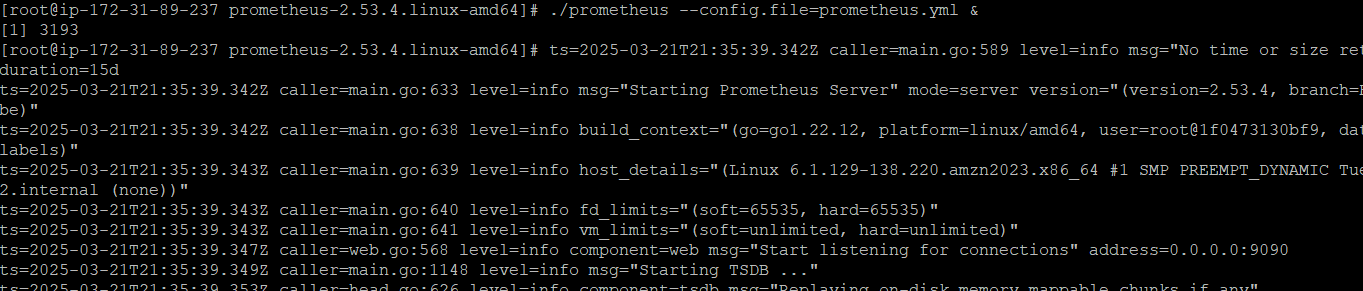
ps -ef | grep Prometheus



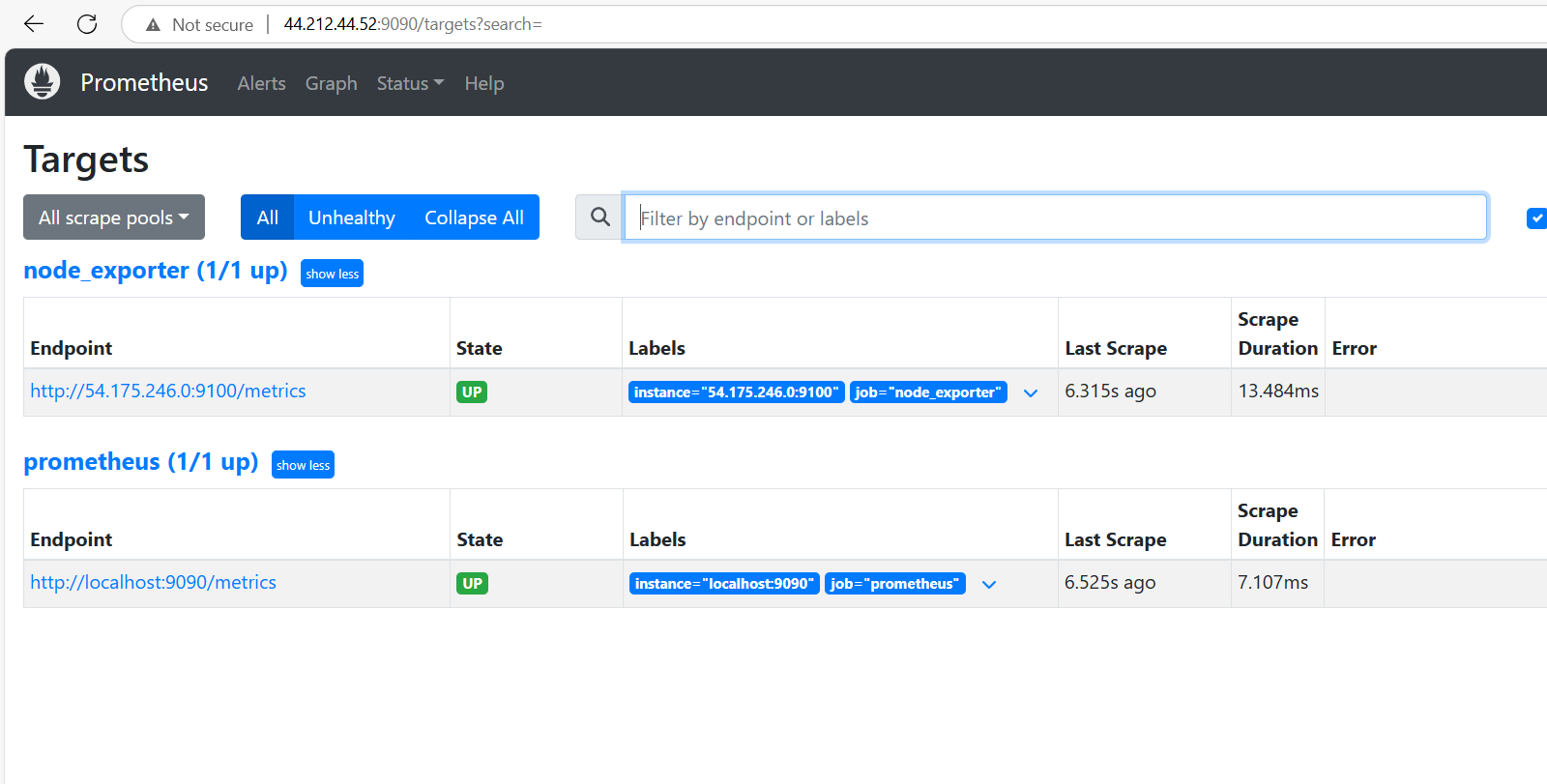
kill 3193



Then again run



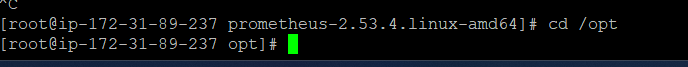
Now the job port\_exporter is also added to Prometheus



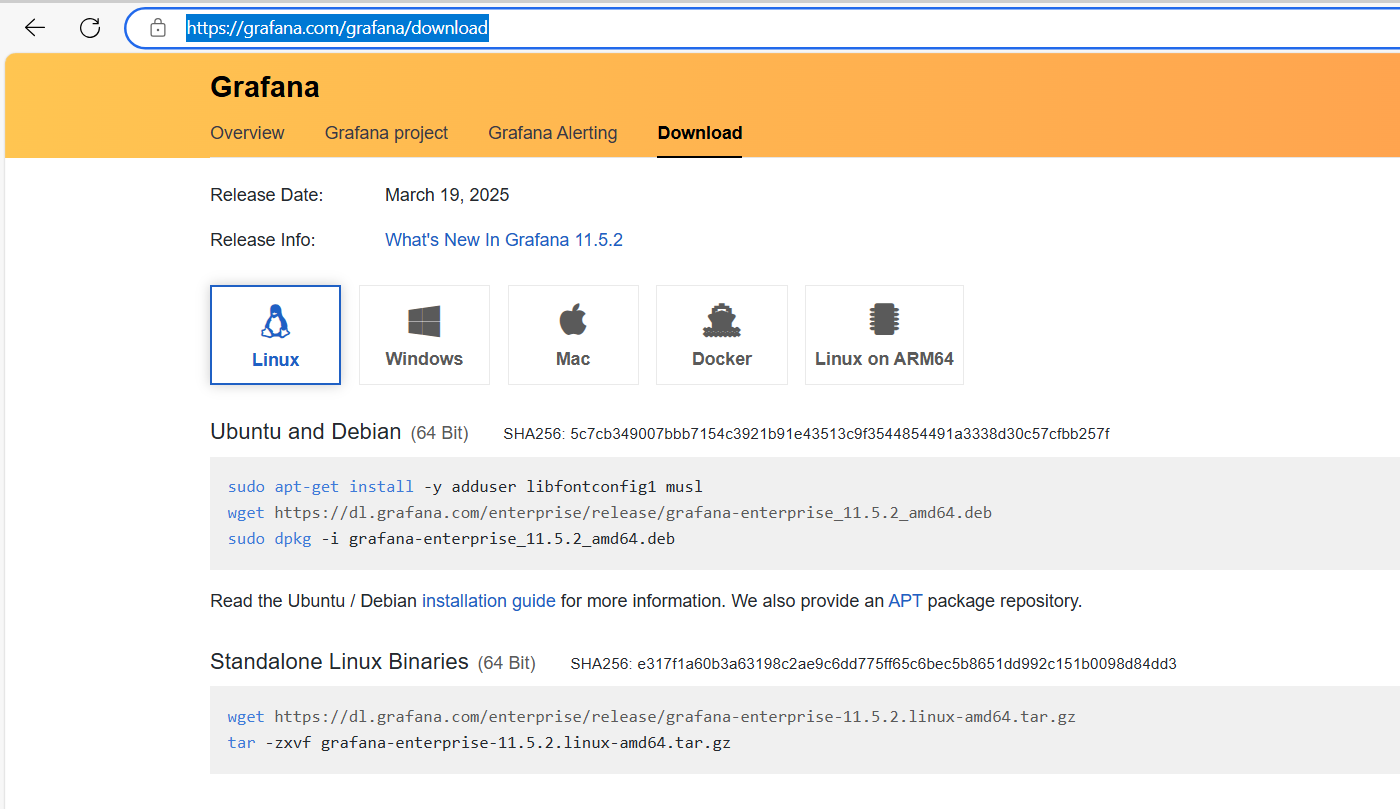
1. Now Prometheus is installed port\_exporter is also installed and connected port\_exporter in the Prometheus.

Finally, Grafana has to be installed in Prometheus instance for visualization to see metrics dashboard.

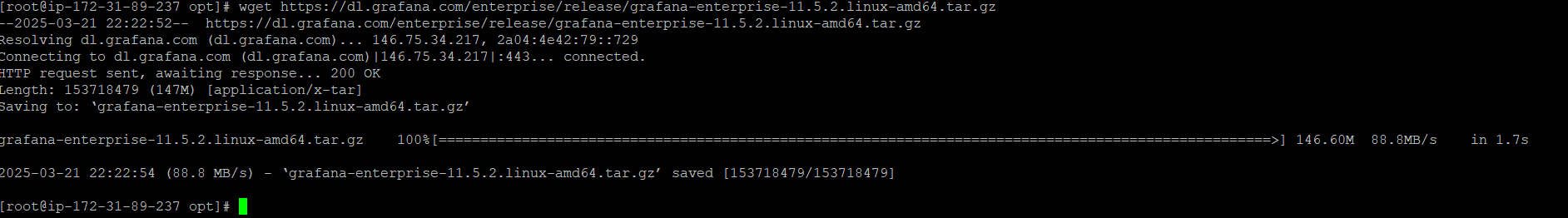
Navigate to cd /opt



Visit the website [Download Grafana | Grafana Labs](https://grafana.com/grafana/download) to get the Grafana download link

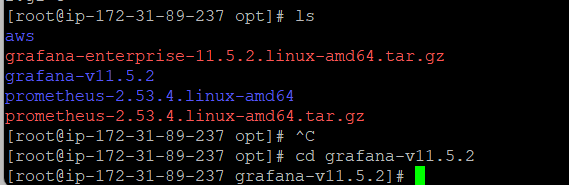


wget <https://dl.grafana.com/enterprise/release/grafana-enterprise-11.5.2.linux-amd64.tar.gz>



tar -zxvf grafana-enterprise-11.5.2.linux-amd64.tar.gz

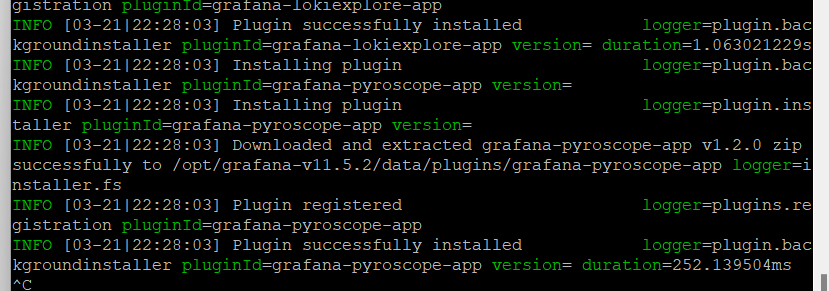
cd grafana



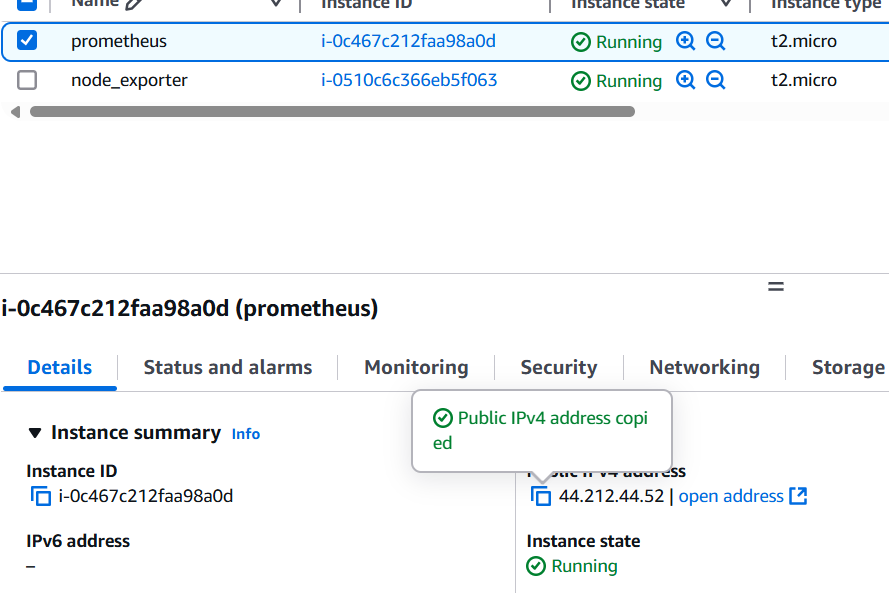
Cd bin

./grafana-server &

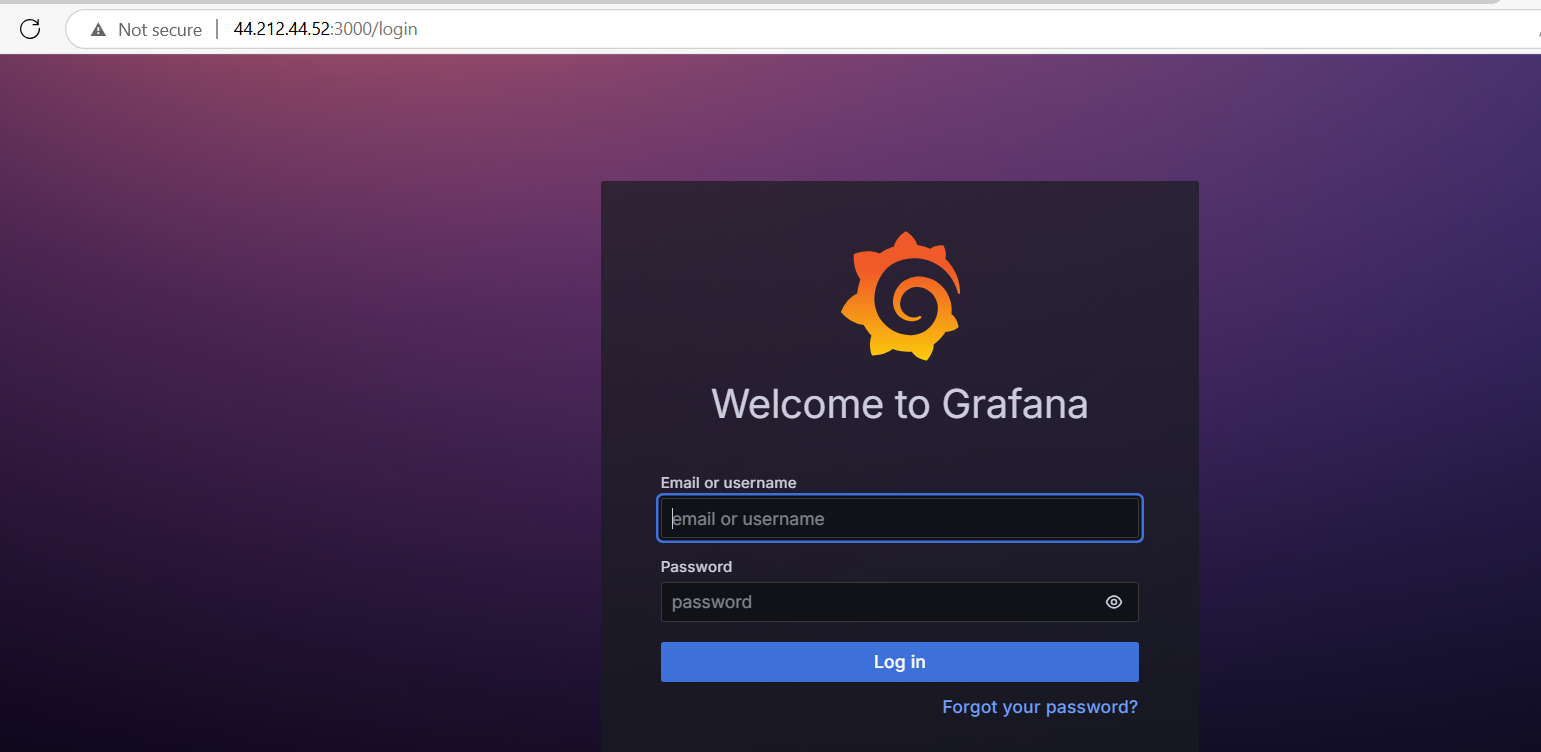
port:3000



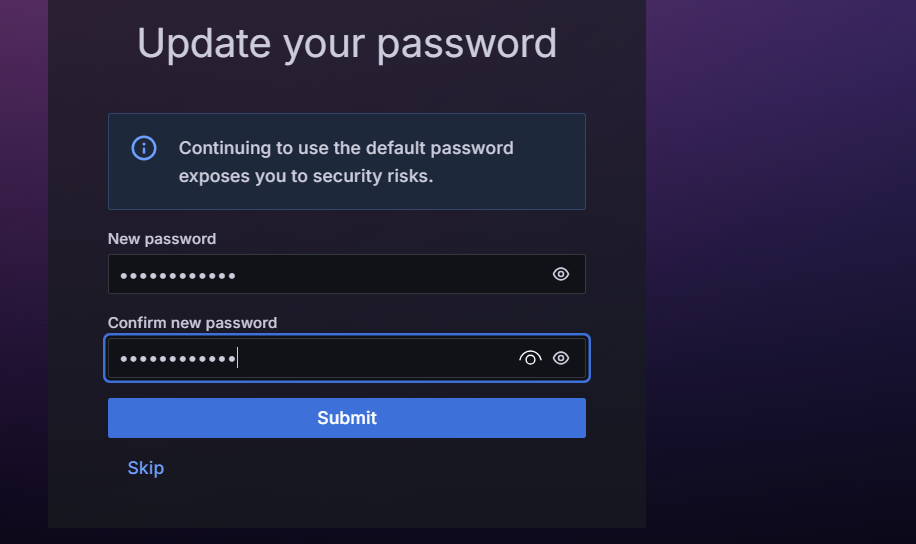
Copy the Prometheus public address

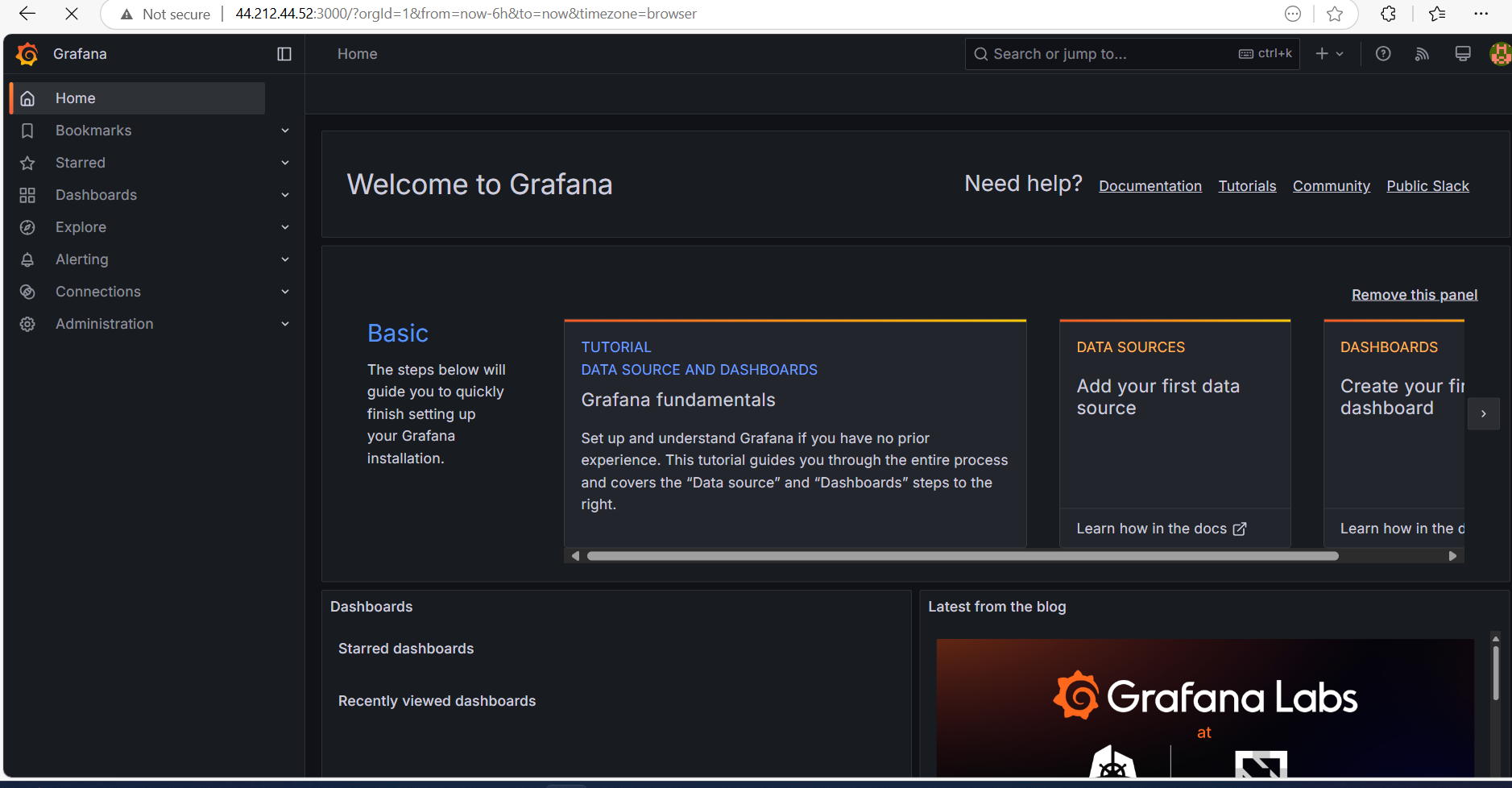


1. Grafana page is displayed

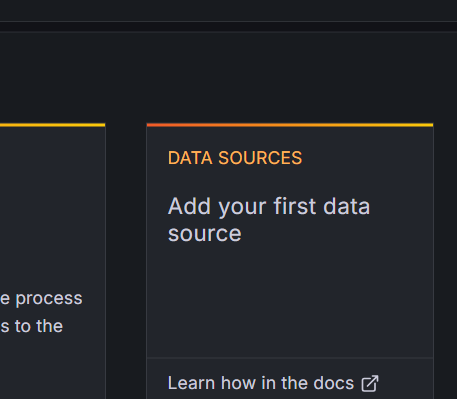


Login using credentials, use admin as the default password. Then change the pw.

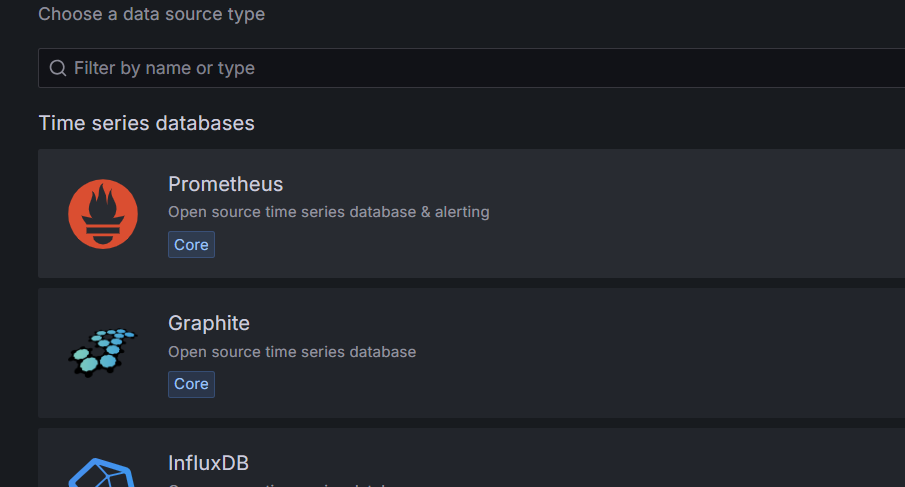




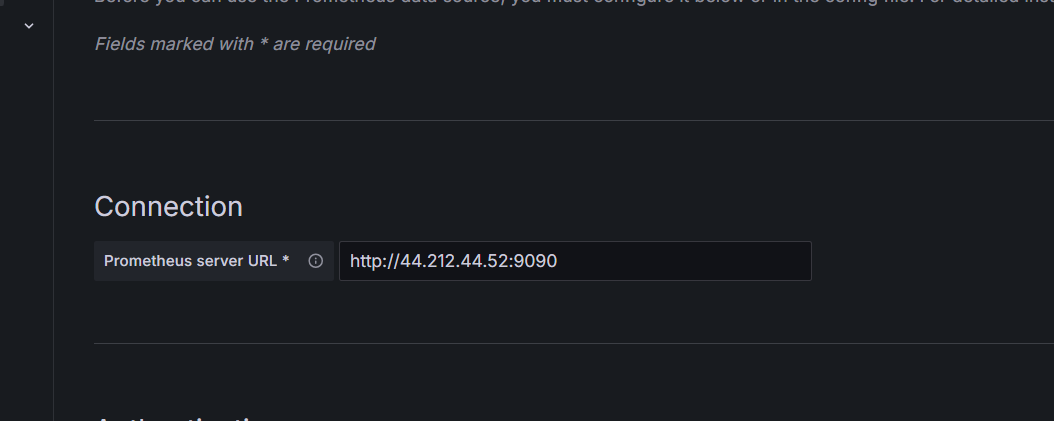
Add the data sources

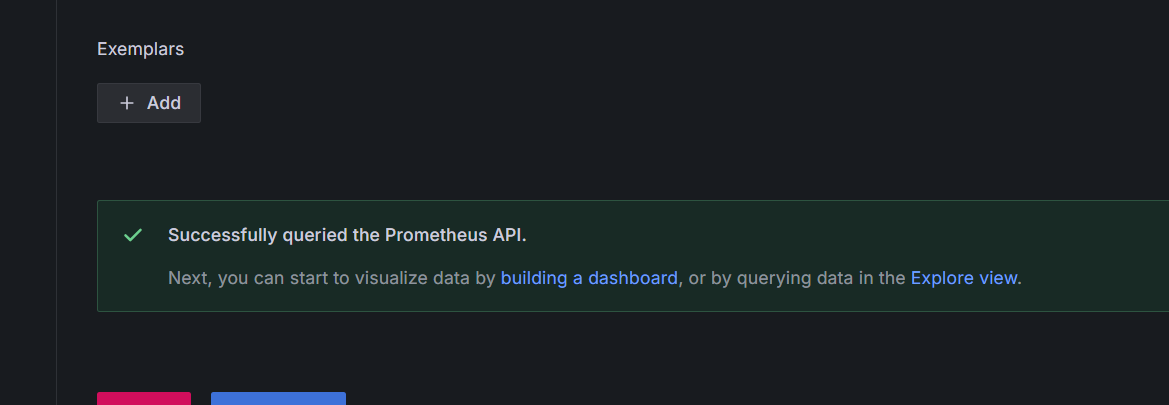


Choose Prometheus

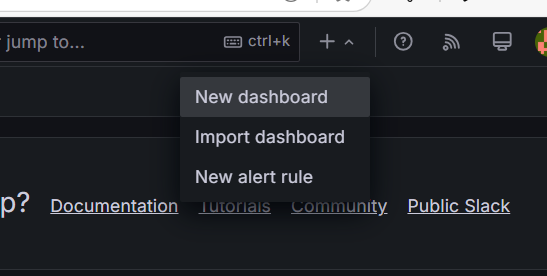


Give the Prometheus url

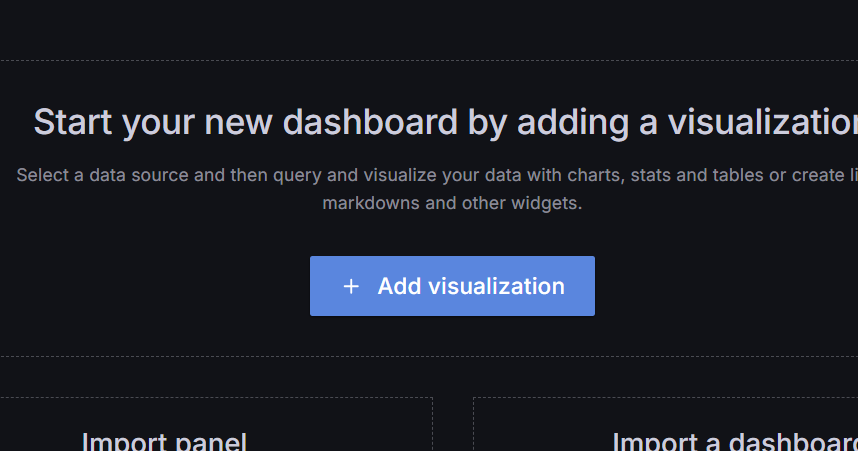




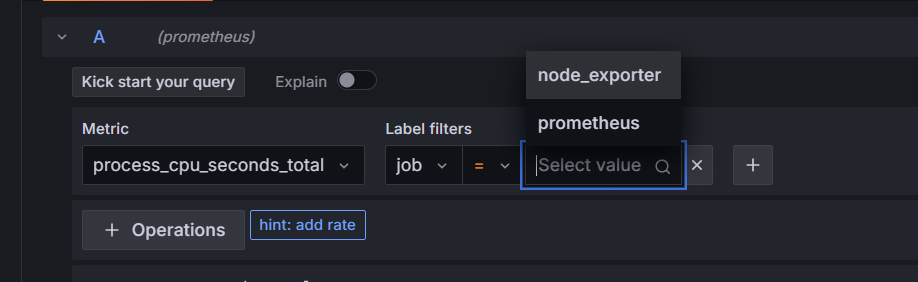
Then go to home> new dashboard



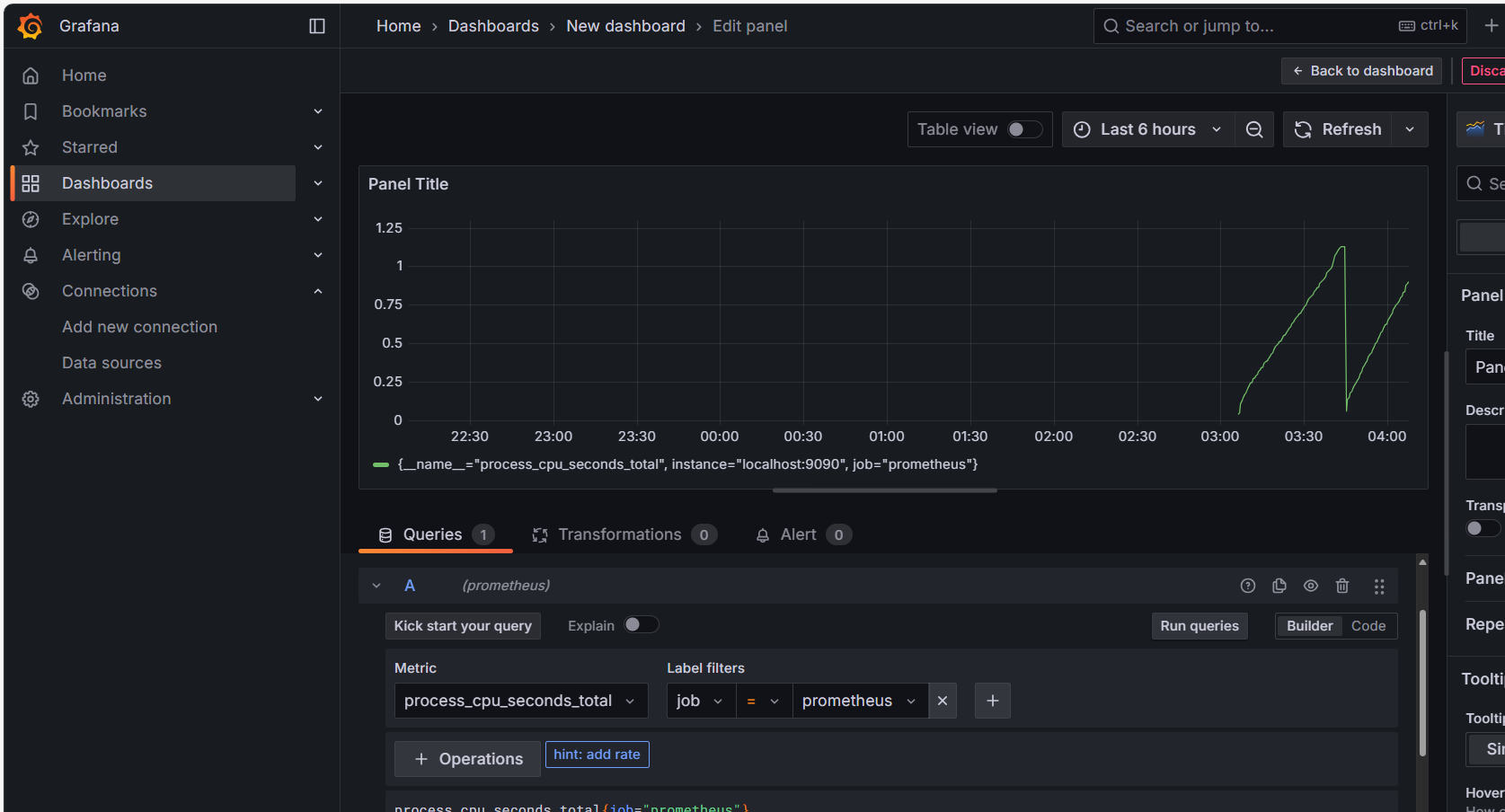
Add visualization



Select the metrics, label and value



Now the graph is displayed



Explore different virtualization options

