Grafana Lab

Sign In

Standard Commands

```
sudo apt update

sudo apt upgrade

sudo apt install vim
```

Go to Grafana Documentation

https://grafana.com/tutorials/install-grafana-on-raspberry-pi/

Install Grafana

```
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

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

sudo apt-get update

sudo apt-get install -y grafana

sudo systemctl start grafana-server
```

Check Access

Go to http://localhost:3000 and see if you can see something

Log in with default username and password admin

Click skip for now (always change the default password in deployment)

Go to Prometheus Documentation

https://prometheus.io/docs/prometheus/latest/getting_started/

Install Prometheus

Go to the download link and choose armv7

Click download or wget the file from the link of the latest release

Run:

tar xvfz prometheus-*.tar.gz

cd prometheus-3.10.0.linux-armv7

(Just type prometheus and tab complete)

Look at Config and Start Prometheus

vim prometheus.yml

Open new terminal start prometheus: ./prometheus --config.file=prometheus.yml

Check Access

Go to http://localhost:9090/ and check if it loads, also check if it has metrics at http://localhost:9090/metrics

Node Exporter Documentation

https://prometheus.io/docs/guides/node-exporter/

Install node-exporter

Go back to the download page and download or wget the node exporter tar

Untar and run:

tar xvfz node_exporter-*

cd node_exporter-1.10.2.linux-armv7

./node_exporter

Check Access

Go to http://localhost:9100/metrics

Add a New Target to Prometheus

Add the following to the prometheus.yml file under scrape configs:

- job_name: "node"

  static_configs:

    - targets: ["localhost:9100"]

Check Prometheus

Restart Prometheus and refresh the browser, check target health to see if it is actually scraping the node exporter

./prometheus --config.file=prometheus.yml

Add Prometheus to Grafana

Go to grafana on the left click connections -> add new connection -> Prometheus

Click add new data source, enter in http://localhost:9090 in the connection prometheus server url, leave everything else on default settings

Click save and test

Add a Dashboard to Grafana

On the left click dashboards -> on the top right click new -> click import

Enter in the dashboard id from the node exporter (1860)

It should automatically go into the dashboard and select prometheus and the node exporter

Further Steps

Setup systemctl service for prometheus and node exporter

Reverse proxy the hosts for https and avoid needing the port number in url