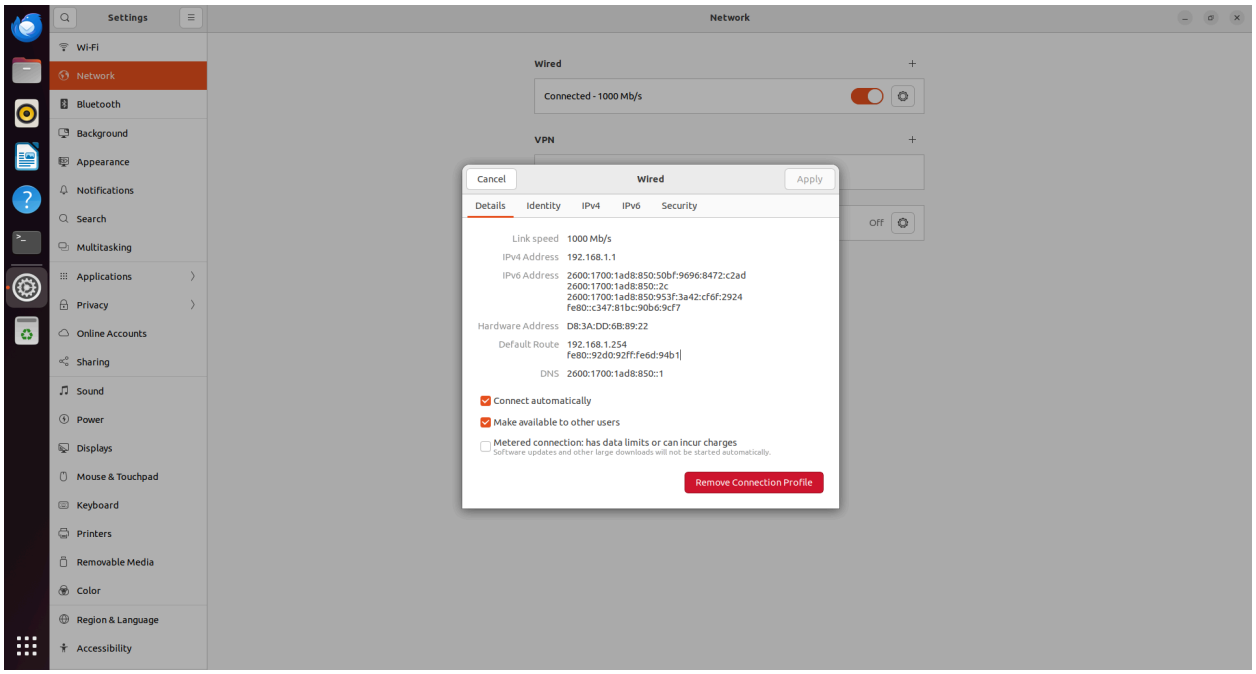
Grafana

Objective: The objective of this lab is to install and configure Grafana on a Raspberry Pi for real-time monitoring of both local system performance and the availability of external domains such as GitHub.com, with inclusion of basic information about my Home Router. This will be achieved by integrating Prometheus as the primary data source for collecting system metrics and utilizing the Blackbox Exporter to monitor the status and response times of specified websites. The final setup will include the creation of Grafana dashboards to visualize data from both sources, providing a comprehensive and interactive monitoring solution.

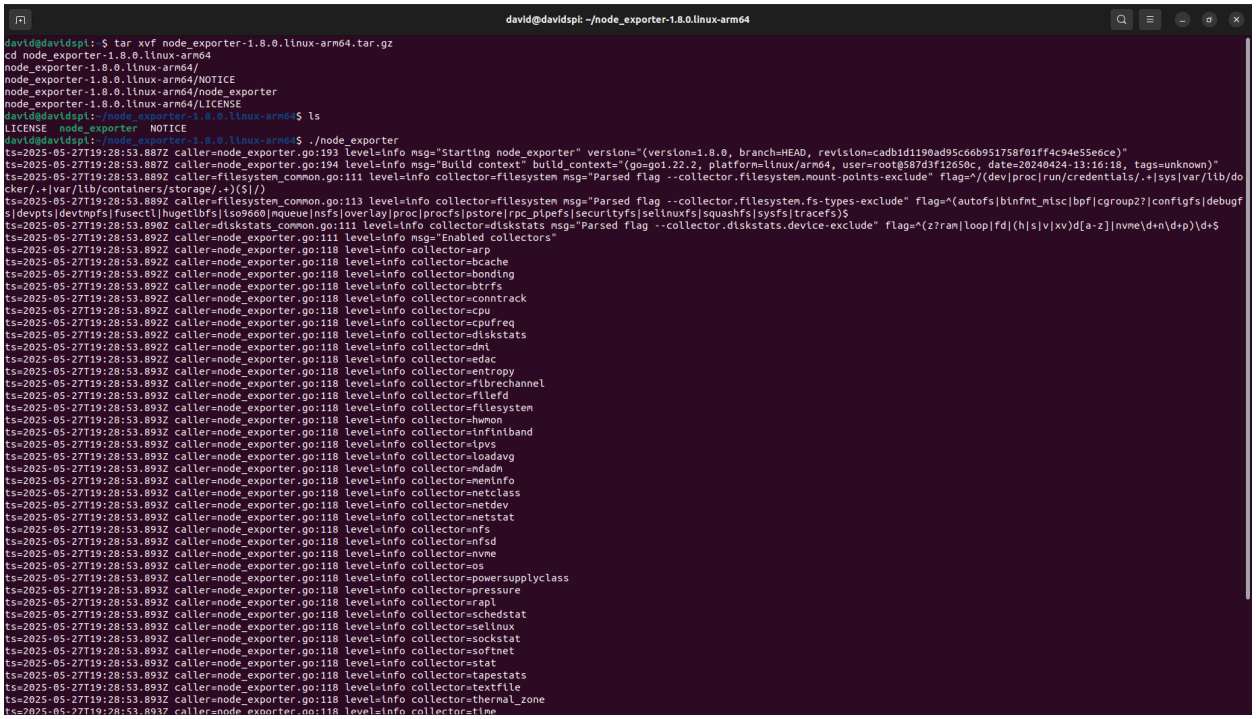
Equipment: Raspberry Pi 4

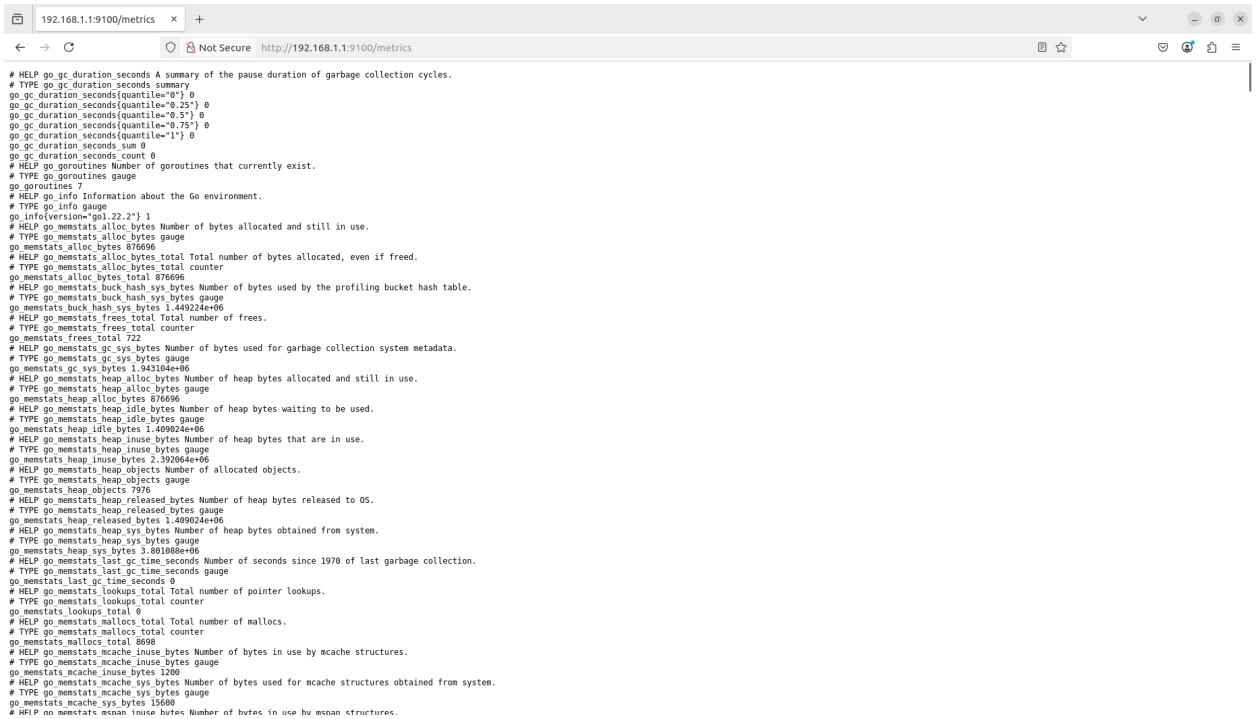
Setps:

1. I ran the command **sudo apt update && sudo apt upgrade -y** to make sure my Raspberry Pi is up to date
2. I **made a static IP configuration** on the Raspberry Pi

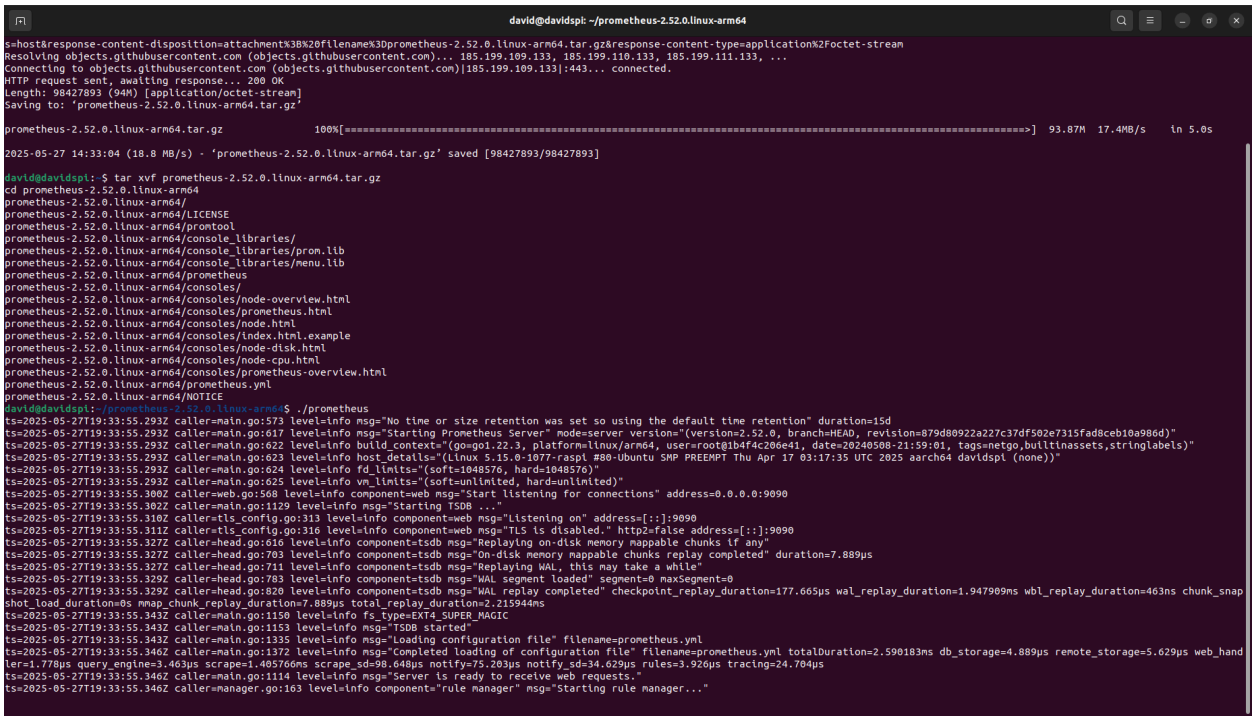


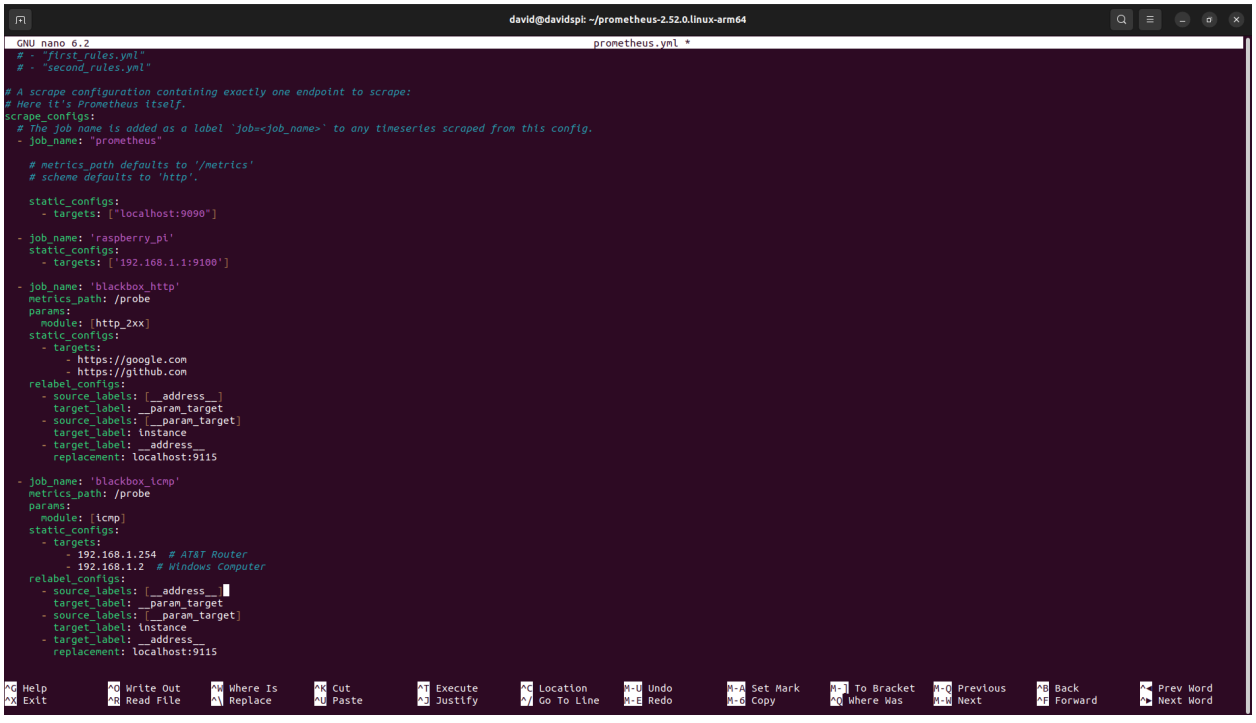
3. I ran the command **tar xvf node_exporter-1.8.0.linux-arm64.tar.gz to install node exporter and verified it's working**

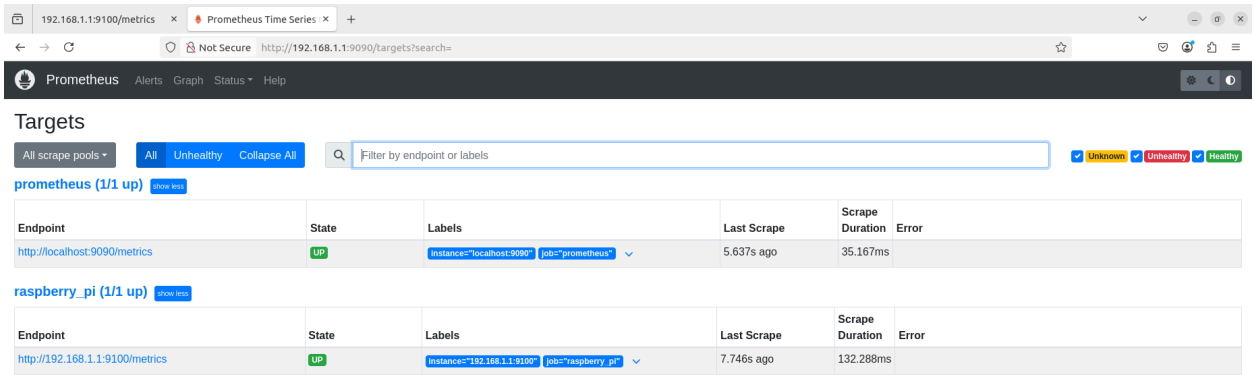




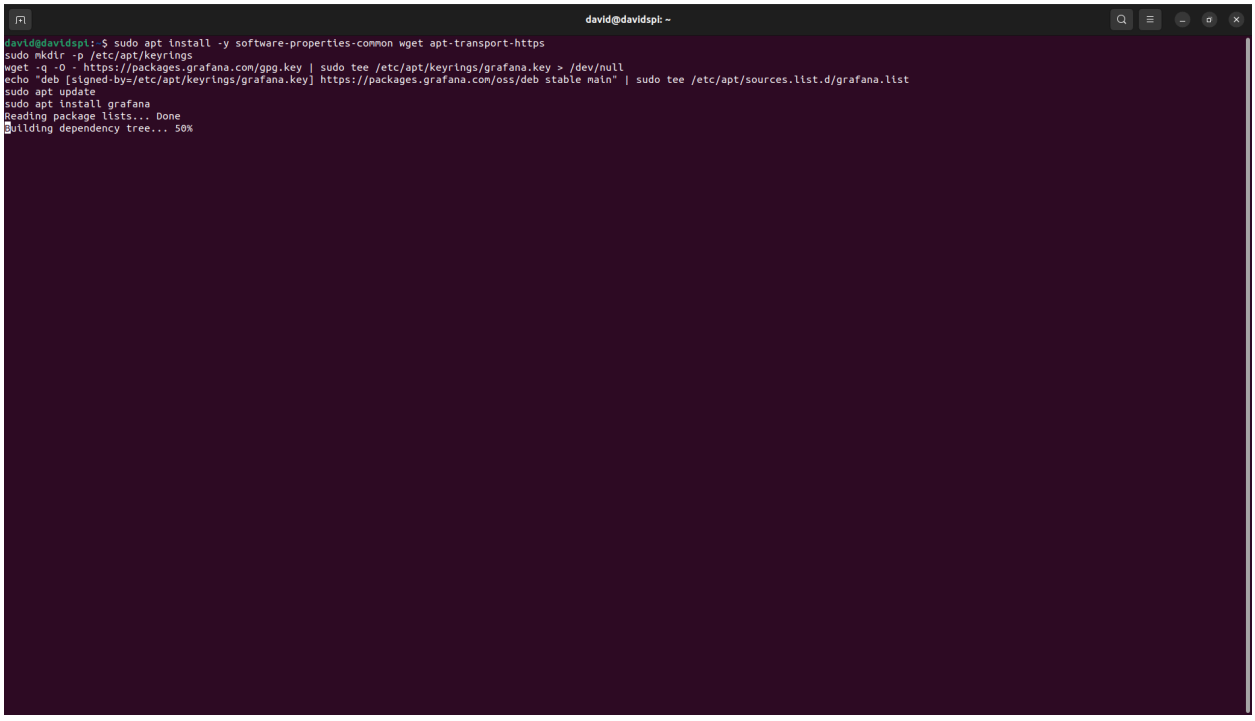
4. I ran the command **tar xvf prometheus-2-52.0.linux-arm64.tar.gz to download prometheus to extract all info about the Raspberry Pi & nano the config file to add the Raspberry Pi**



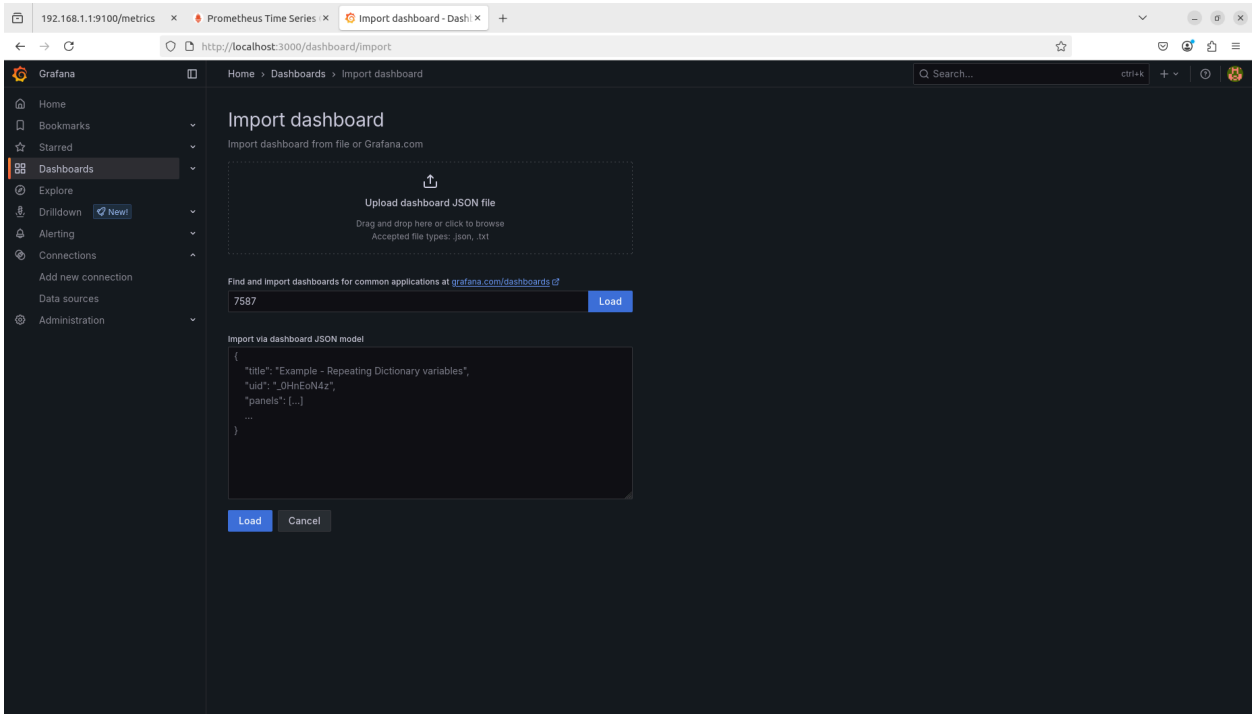


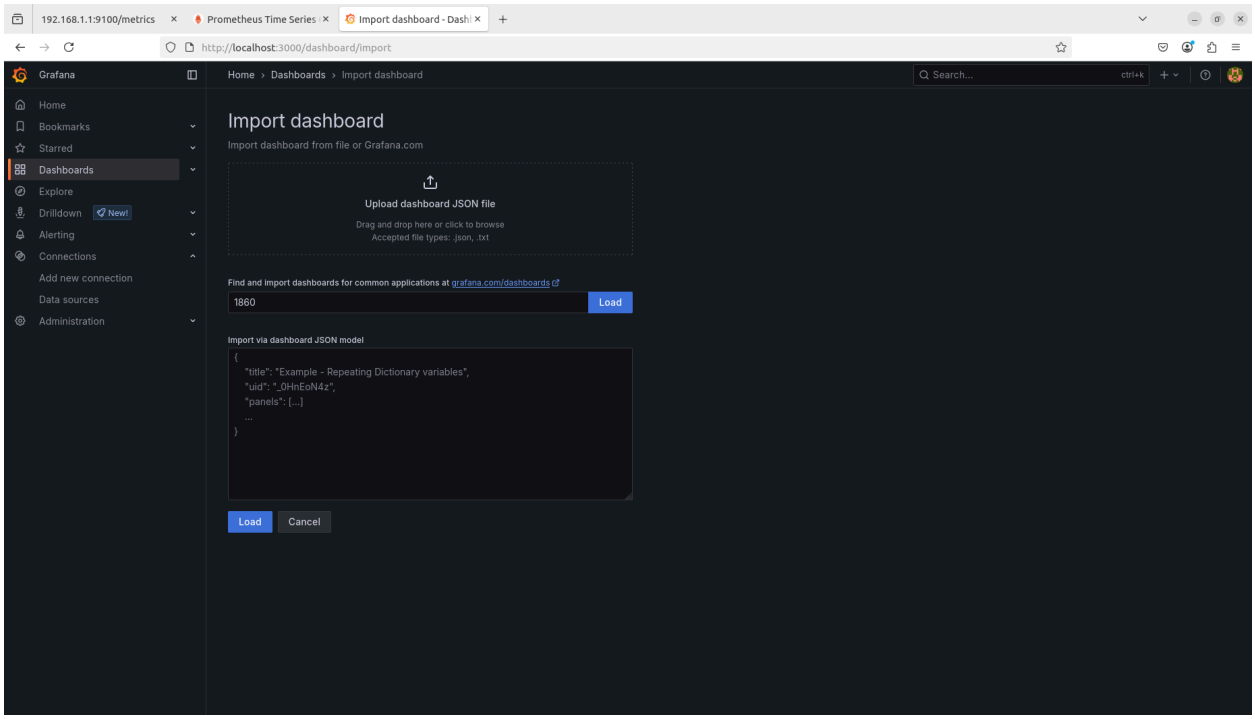


5. I ran the command **sudo apt install -y software-properties-common wget apt-transport-https to install grafana**

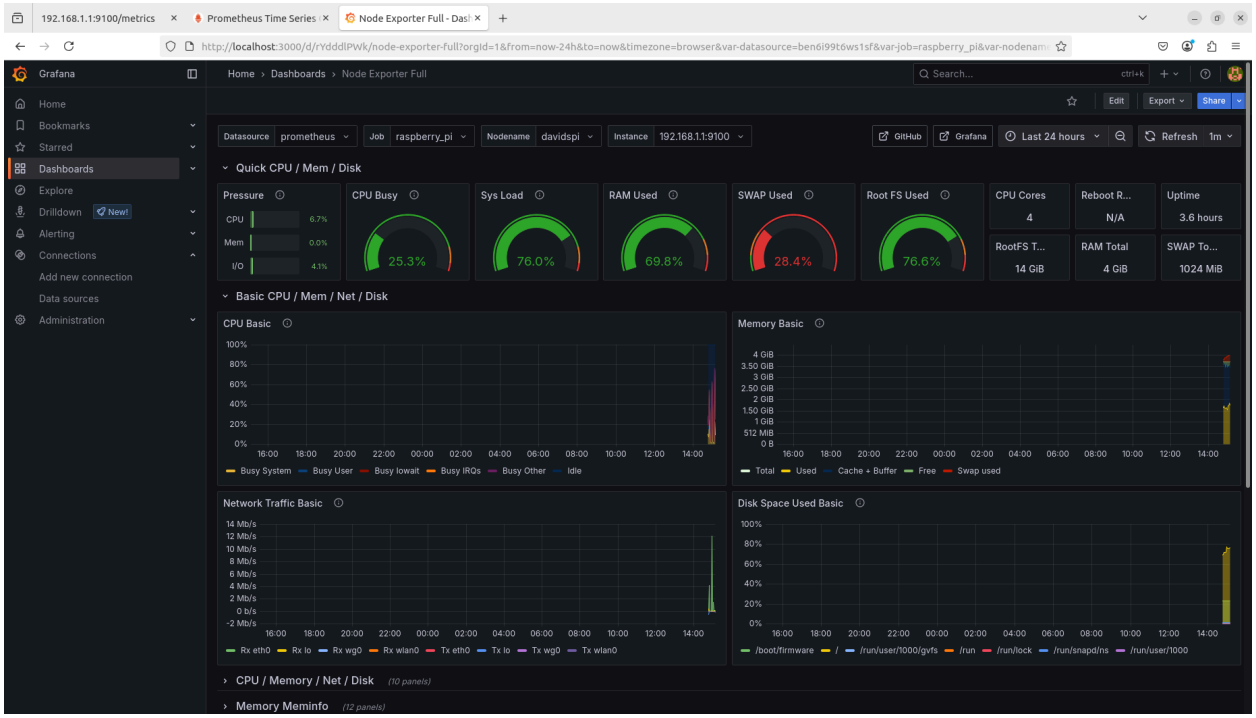


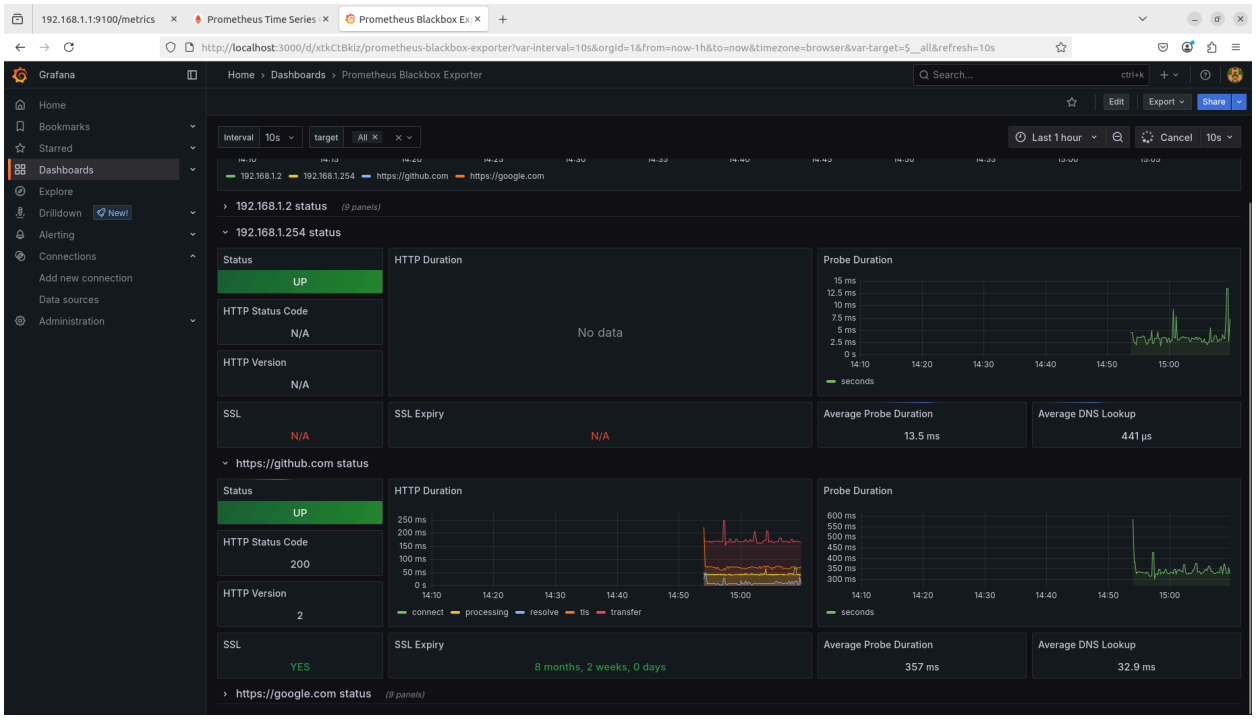
6. After installing grafana, **I imported port numbers 9100 & 9090 with their special dashboard codes** to display them on my homepage





7. After importing them **I customized my dashboard and I can look at my Raspberry Pi resource usage, websites like GitHub, and basic information about my router (.254)**





8. Just to ensure **proper connectivity I accessed the dashboard on my Mac**