

Prometheus Installation:

Username Creation:

```
sudo useradd \  
--system \  
--no-create-home \  
--shell /bin/false Prometheus
```

Command:

```
wget  
https://github.com/prometheus/prometheus/releases/download/v2.47.1/prometheus-  
2.47.1.linux-amd64.tar.gz  
  
tar -xvf prometheus-2.47.1.linux-amd64.tar.gz  
  
sudo mkdir -p /data /etc/prometheus  
  
cd prometheus-2.47.1.linux-amd64/  
  
sudo mv prometheus promtool /usr/local/bin/  
  
sudo mv consoles/ console_libraries/ /etc/prometheus/  
  
sudo mv prometheus.yml /etc/prometheus/prometheus.yml  
  
sudo chown -R prometheus:prometheus /etc/prometheus/ /data/  
  
cd  
  
rm -rf prometheus-2.47.1.linux-amd64.tar.gz  
  
prometheus --version  
  
sudo vim /etc/systemd/system/prometheus.service
```

```
ragu_ubuntu@Kavin: ~/prometheus
prometheus-2.47.1.linux-amd64/consoles/prometheus.html
prometheus-2.47.1.linux-amd64/consoles/prometheus-overview.html
prometheus-2.47.1.linux-amd64/consoles/node-cpu.html
prometheus-2.47.1.linux-amd64/consoles/index.html.example
prometheus-2.47.1.linux-amd64/consoles/node.html
prometheus-2.47.1.linux-amd64/consoles/node-disk.html
prometheus-2.47.1.linux-amd64/consoles/node-overview.html
prometheus-2.47.1.linux-amd64/promtool
^[[A
gzip: stdin: unexpected end of file
tar: Unexpected EOF in archive
tar: Unexpected EOF in archive
tar: Error is not recoverable: exiting now
^[[Amv: cannot stat 'prometheus': No such file or directory
mv: cannot stat 'console_libraries/': No such file or directory
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ wget https://github.com/prometheus/prometheus/releases/download/v2.47.1/prometheus-2.47.1.linux-amd64.tar.gz
--2025-03-22 06:31:46-- https://github.com/prometheus/prometheus/releases/download/v2.47.1/prometheus-2.47.1.linux-amd64.tar.gz
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)|20.207.73.82|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/6838921/2f9b7b37-63a0-428b-adb5-0294482fd743?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20250322%2Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20250322T063045Z&X-Amz-Expires=300&X-Amz-Signature=ed575488b40968463d4d5aa828b8b4c87cbfe8c835d5f52c11c05389b4809d96X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dprometheus-2.47.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2025-03-22 06:31:46-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/6838921/2f9b7b37-63a0-428b-adb5-0294482fd743?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20250322%2Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20250322T063045Z&X-Amz-Expires=300&X-Amz-Signature=ed575488b40968463d4d5aa828b8b4c87cbfe8c835d5f52c11c05389b4809d96X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dprometheus-2.47.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.110.133, 185.199.111.133, 185.199.108.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.110.133|:443... connected.

ragu_ubuntu@Kavin: ~/prometheus
rm -rf prometheus-2.47.1.linux-amd64.tar.gz
prometheus --version
sudo vim /etc/systemd/system/prometheus.service
prometheus, version 2.47.1 (branch: HEAD, revision: c4d1a8beff37cc004f1dc4ab9d2e73193f51aaeb)
  build user:   root@4829330363be
  build date:   20231004-10:31:16
  go version:   go1.21.1
  platform:     linux/amd64
  tags:         netgo,builtinassets,stringlabels
ragu_ubuntu@Kavin: $ ls
deploy.yaml  docker-compose.yaml  ns.yaml  pod-ns.yaml  pod.yaml  prometheus-2.47.1.linux-amd64  rs.yaml
ragu_ubuntu@Kavin: $ cd
.aws/                  .docker/              .landscape/           prometheus-2.47.1.linux-amd64/
.azure/               .jenkins/             .local/
.cache/               .kube/               .minikube/
ragu_ubuntu@Kavin: $ cd prometheus-2.47.1.linux-amd64/
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ ld
ld: no input files
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ ls
LICENSE NOTICE prometheus-2.47.1.linux-amd64 prometheus-2.47.1.linux-amd64.tar.gz
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ rm
prometheus-2.47.1.linux-amd64/
prometheus-2.47.1.linux-amd64.tar.gz
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ rm prometheus-2.47.1.linux-amd64
prometheus-2.47.1.linux-amd64/
prometheus-2.47.1.linux-amd64.tar.gz
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ rm prometheus-2.47.1.linux-amd64.tar.gz
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ ls
LICENSE NOTICE prometheus-2.47.1.linux-amd64
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64$ cd prometheus-2.47.1.linux-amd64/
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ prometheus --version
prometheus, version 2.47.1 (branch: HEAD, revision: c4d1a8beff37cc004f1dc4ab9d2e73193f51aaeb)
  build user:   root@4829330363be
  build date:   20231004-10:31:16
  go version:   go1.21.1
  platform:     linux/amd64
  tags:         netgo,builtinassets,stringlabels
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ sudo vim /etc/systemd/system/prometheus.service
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$
```

Prometheus.sevice:

[Unit]

Description=Prometheus

Wants=network-online.target

After=network-online.target

StartLimitIntervalSec=500

StartLimitBurst=5

[Service]

User=prometheus

Group=prometheus

Type=simple

Restart=on-failure

RestartSec=5s

ExecStart=/usr/local/bin/prometheus \

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

--storage.tsdb.path=/data \

--web.console.templates=/etc/prometheus/consoles \

--web.console.libraries=/etc/prometheus/console_libraries \

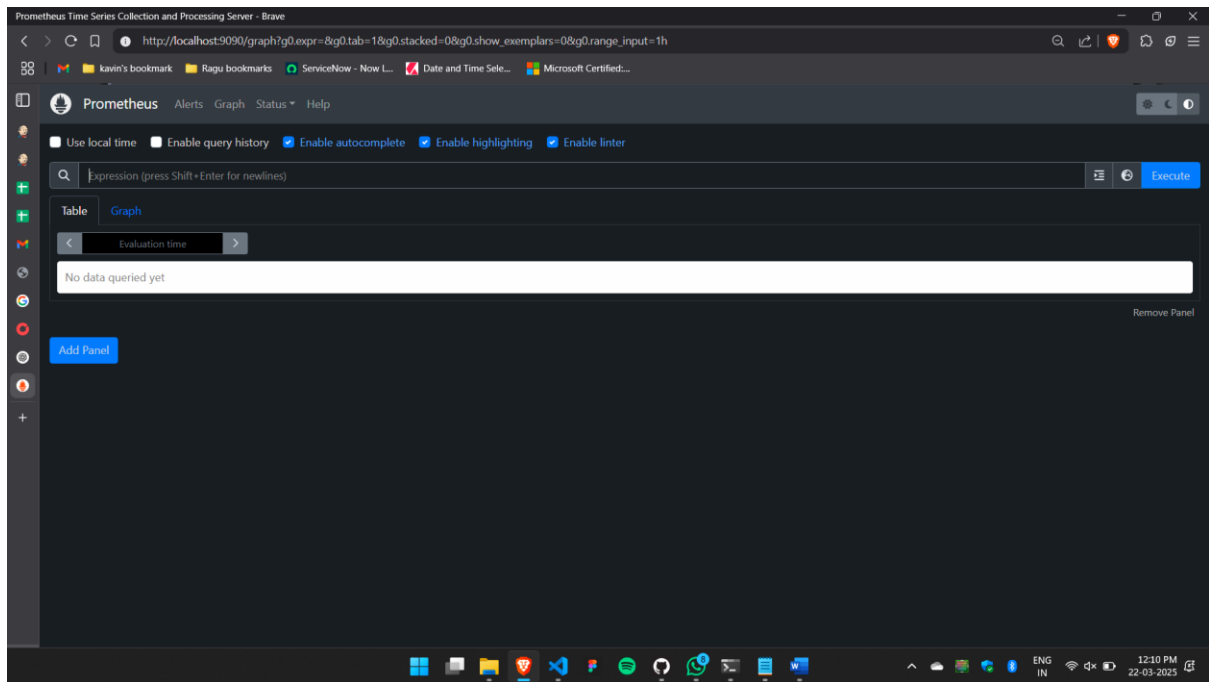
--web.listen-address=0.0.0.0:9090 \

--web.enable-lifecycle

[Install]

WantedBy=multi-user.target

```
ragu_ubuntu@Kavin: ~  
platform: linux/amd64  
tags: netgo,builtinassets,stringlabels  
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ sudo vim /etc/systemd/system/prometheus.service  
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ sudo vim /etc/systemd/system/prometheus.service  
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ ls  
LICENSE NOTICE consoles  
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ sudo vim /etc/systemd/system/prometheus.service  
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ ls  
LICENSE NOTICE consoles  
ragu_ubuntu@Kavin: ~/prometheus-2.47.1.linux-amd64/prometheus-2.47.1.linux-amd64$ cd  
ragu_ubuntu@Kavin: $ ls  
deploy.yaml docker-compose.yaml ns.yaml pod-ns.yaml pod.yaml prometheus-2.47.1.linux-amd64 rs.yaml  
ragu_ubuntu@Kavin: $  
ragu_ubuntu@Kavin: $ sudo systemctl enable prometheus  
sudo systemctl start prometheus  
sudo systemctl status prometheus  
journalctl -u prometheus -f --no-pager  
Created symlink /etc/systemd/system/multi-user.target.wants/prometheus.service → /etc/systemd/system/prometheus.service.  
● prometheus.service - Prometheus  
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)  
   Active: active (running) since Sat 2025-03-22 06:40:03 UTC; 21ms ago  
     Main PID: 53900 (prometheus)  
       Tasks: 5 (limit: 9423)  
      Memory: 4.9M (-)  
     CGroup: /system.slice/prometheus.service  
             └─53900 /usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --storage.tsdb.path=/data --web.console.templates=/etc/prometheus/consoles --web.console.libraries=/etc/prometheus/console_libraries --web.listen-address=0.0.0.0:9090 --web.enable-lifecycle  
  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.365Z caller=head.go:681 level=info component=tsdb msg="On-disk memory mappable"  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.365Z caller=head.go:689 level=info component=tsdb msg="Replaying WAL, this may take a while"  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.365Z caller=head.go:760 level=info component=tsdb msg="WAL segment loaded" segment=1  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.365Z caller=head.go:797 level=info component=tsdb msg="WAL replay completed" chunk=1  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.367Z caller=main.go:1045 level=info fs_type=EXT4_SUPER_MAGIC  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.367Z caller=main.go:1048 level=info msg="TSDB started"  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.367Z caller=main.go:1229 level=info msg="Loading configuration file" filename=/etc/prometheus/prometheus.yml  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.368Z caller=main.go:1266 level=info msg="Completed loading of configuration file" filename=/etc/prometheus/prometheus.yml  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.368Z caller=main.go:1809 level=info msg="Server is ready to receive web requests"  
Mar 22 06:40:03 Kavin prometheus[53900]: ts=2025-03-22T06:40:03.368Z caller=manager.go:1809 level=info component="rule manager" msg="Starting rule manager"  
lines 1-19/19 (END)
```



Node Exporter:

Commands for installation:

```
sudo mv \
node_exporter-1.6.1.linux-amd64/node_exporter \
/usr/local/bin/
rm -rf node_exporter*
```

Node exporter file:

[Unit]

Description=Node Exporter

Wants=network-online.target

After=network-online.target

StartLimitIntervalSec=500

StartLimitBurst=5

[Service]

User=node_exporter

Group=node_exporter

Type=simple

Restart=on-failure

RestartSec=5s

ExecStart=/usr/local/bin/node_exporter \

--collector.logind

[Install]

WantedBy=multi-user.target

Service check : sudo systemctl enable node_exporter

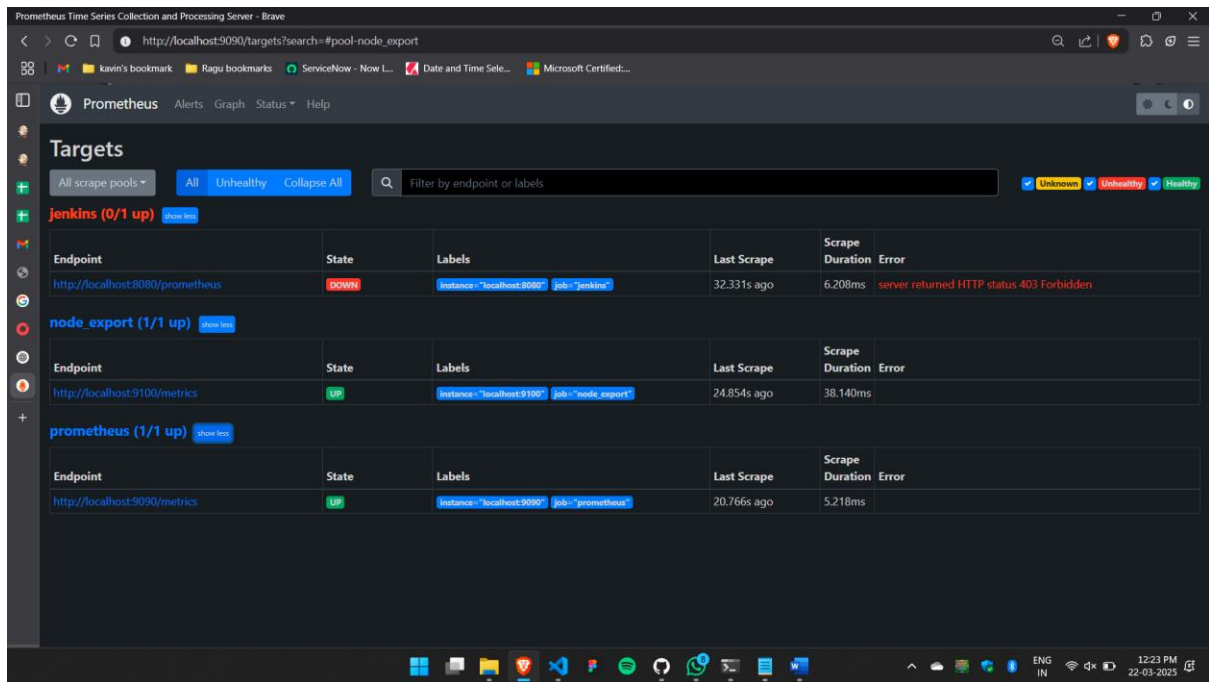
sudo systemctl start node_exporter

sudo systemctl status node_exporter

journalctl -u node_exporter -f --no-pager

```
ragu_ubuntu@Kavin: ~  
$ cat /etc/prometheus/prometheus.yml  
# my global config  
global:  
  scrape_interval: 15s # Set the scrape interval to every 15 seconds. Default is every 1 minute.  
  evaluation_interval: 15s # Evaluate rules every 15 seconds. The default is every 1 minute.  
  # scrape_timeout is set to the global default (10s).  
  
# Alertmanager configuration  
alerting:  
  alertmanagers:  
    - static_configs:  
      - targets:  
        - alertmanager:9093  
  
# Load rules once and periodically evaluate them according to the global 'evaluation_interval'.  
rule_files:  
  # - "first_rules.yml"  
  # - "second_rules.yml"  
  
# A scrape configuration containing exactly one endpoint to scrape:  
# Here it's Prometheus itself.  
scrape_configs:  
  # The job name is added as a label 'job=<job_name>' to any timeseries scraped from this config.  
  - job_name: "prometheus"  
    # metrics_path defaults to '/metrics'  
    # scheme defaults to 'http'.  
    static_configs:  
      - targets: ["localhost:9090"]  
  
  - job_name: "node_exporter"  
    static_configs:  
      - targets: ["localhost:9100"]  
  
  - job_name: "jenkins"  
    metrics_path: '/prometheus'  
    static_configs:  
      - targets: ["localhost:8080"]  
  
# /etc/prometheus/prometheus.yml 38L, 1132B  
31,27 All
```

Reload Prometheus: curl -X POST <http://localhost:9090/-/reload>



Grafana:

```
sudo apt-get install -y apt-transport-https software-properties-common
```

```
wget -q -O - https://packages.grafana.com/gpg.key | sudo apt-key add -
```

```
echo "deb https://packages.grafana.com/oss/deb stable main" | sudo tee -a /etc/apt/sources.list.d/grafana.list
```

```
sudo apt-get update
```

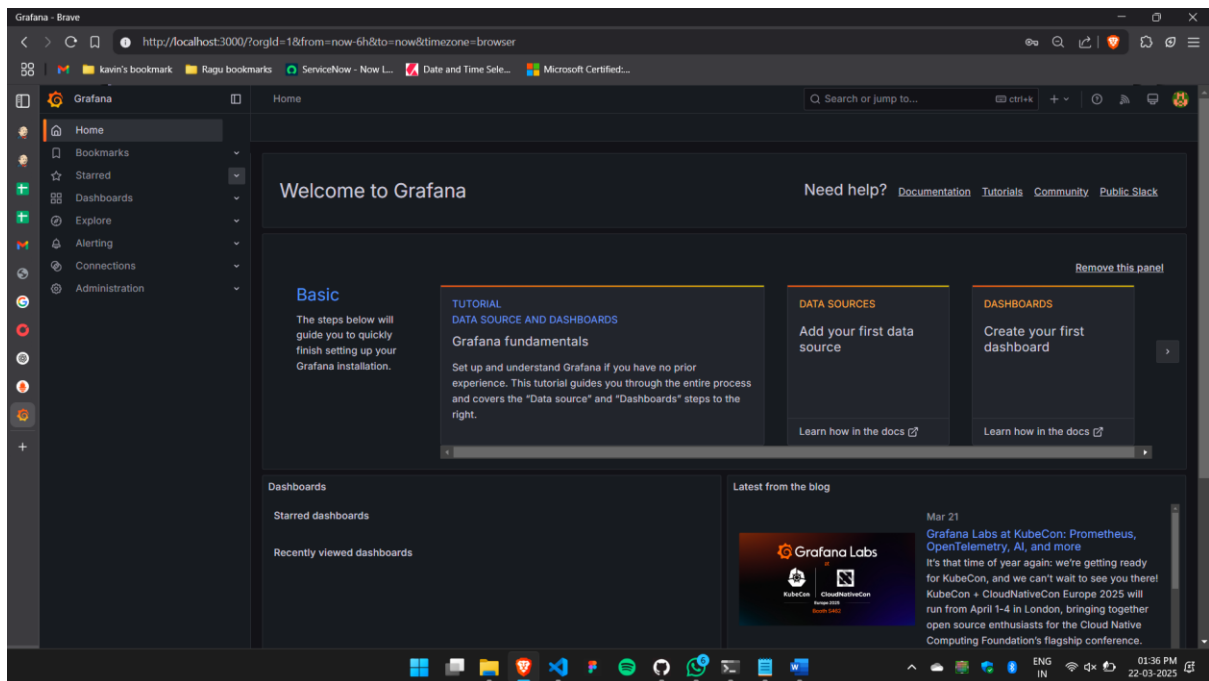
```
sudo apt-get -y install grafana
```

```
sudo systemctl enable grafana-server
```

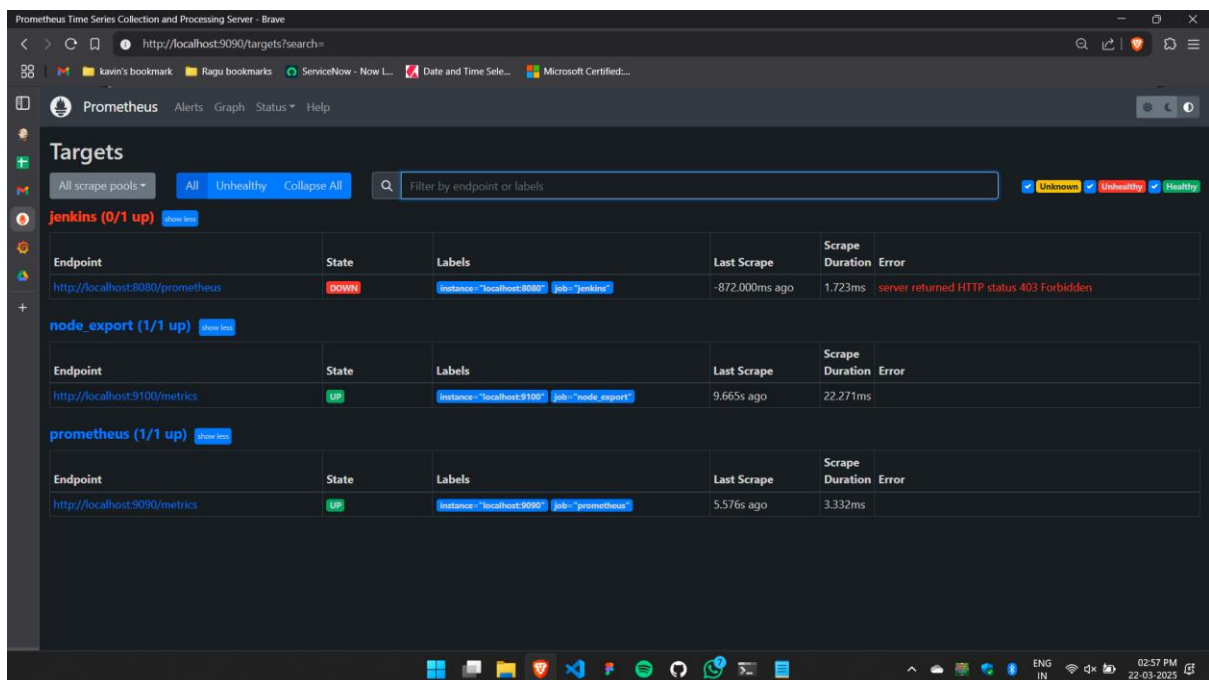
```
sudo systemctl start grafana-server
```

```
sudo systemctl status grafana-server
```

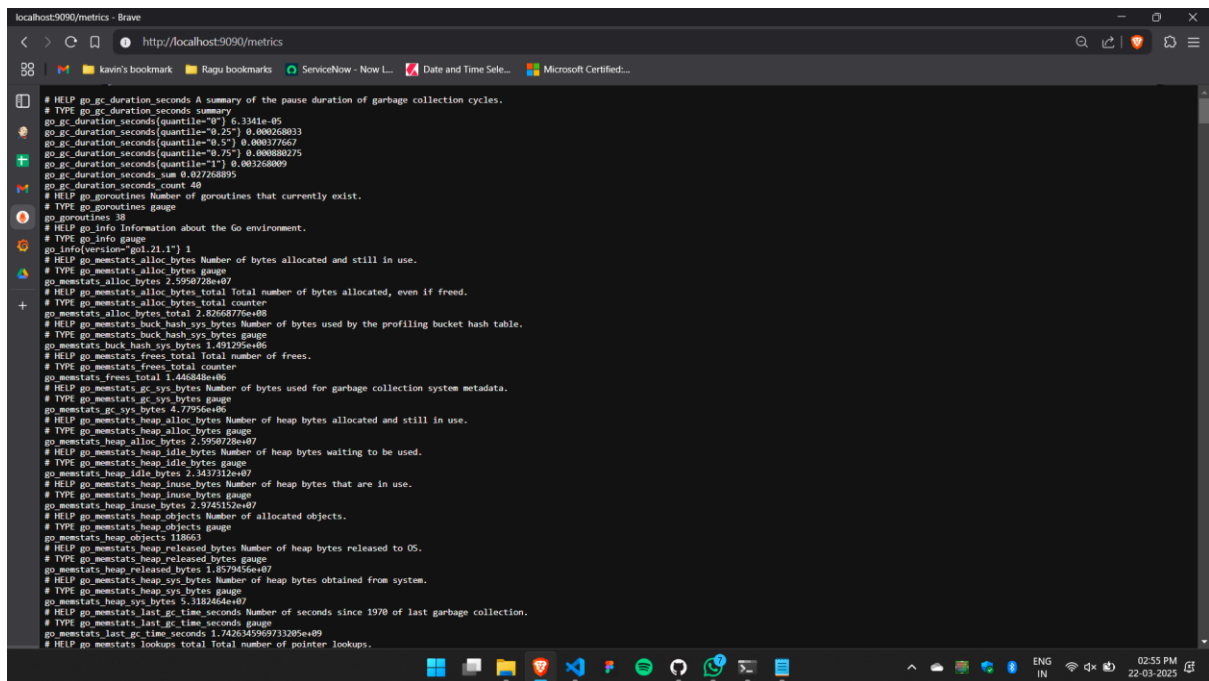
Grafana UI:



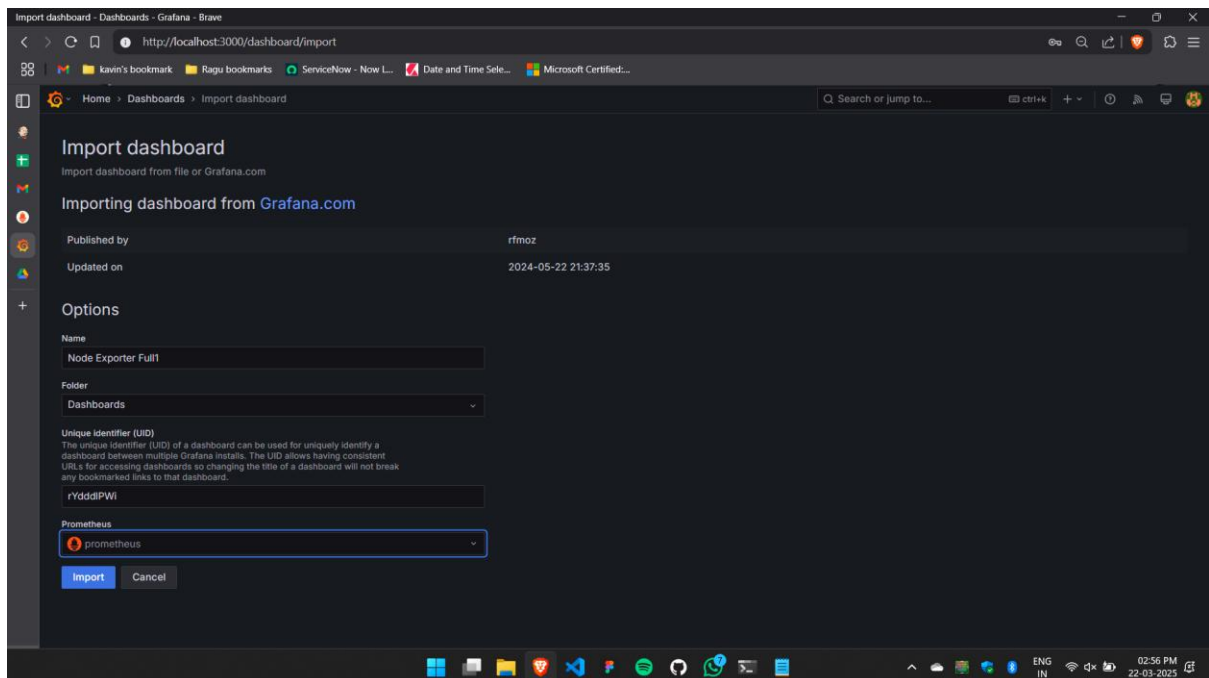
Status in prometheus:



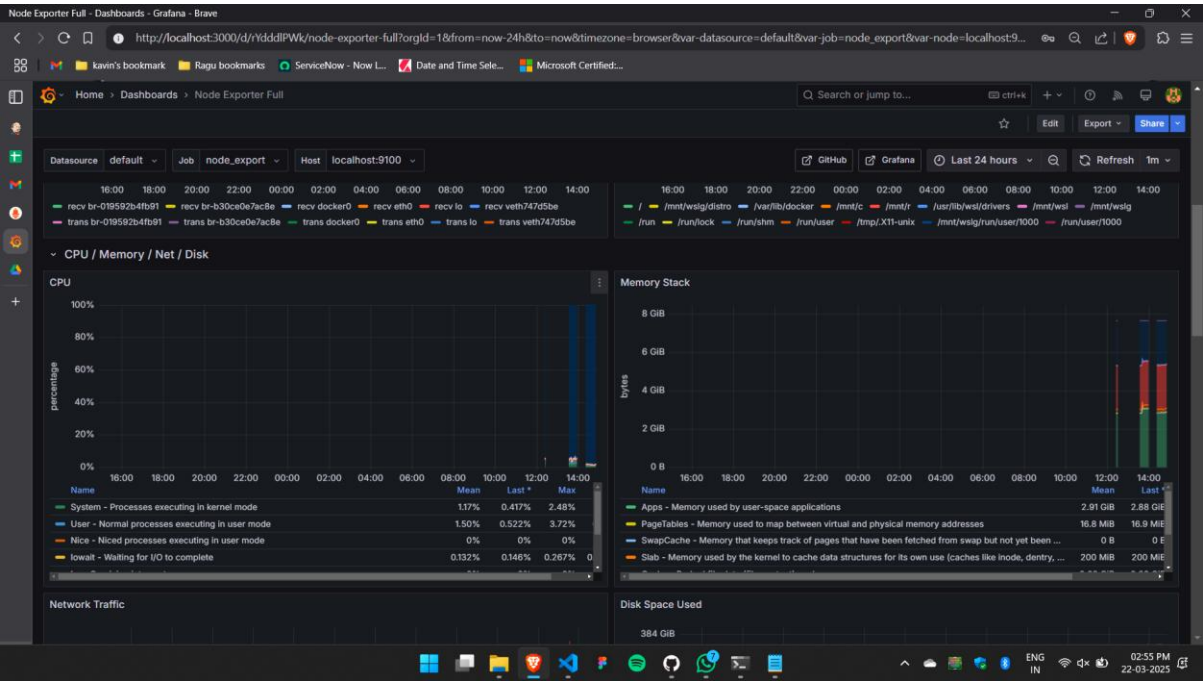
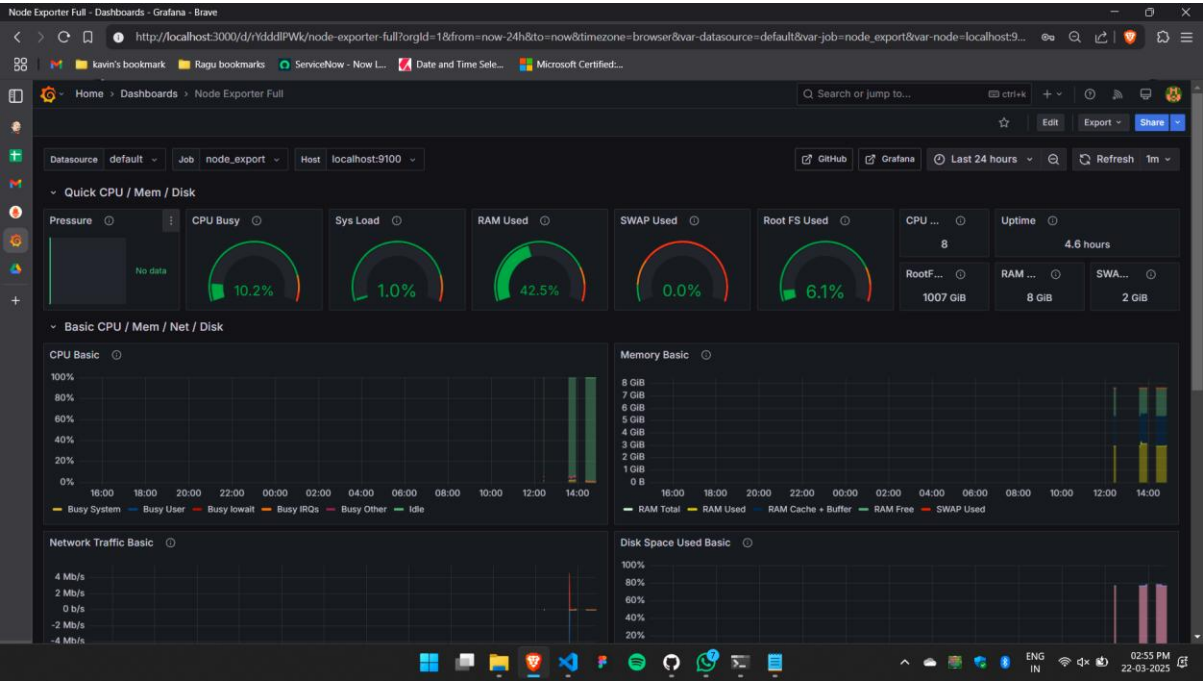
Metrics in Prometheus:



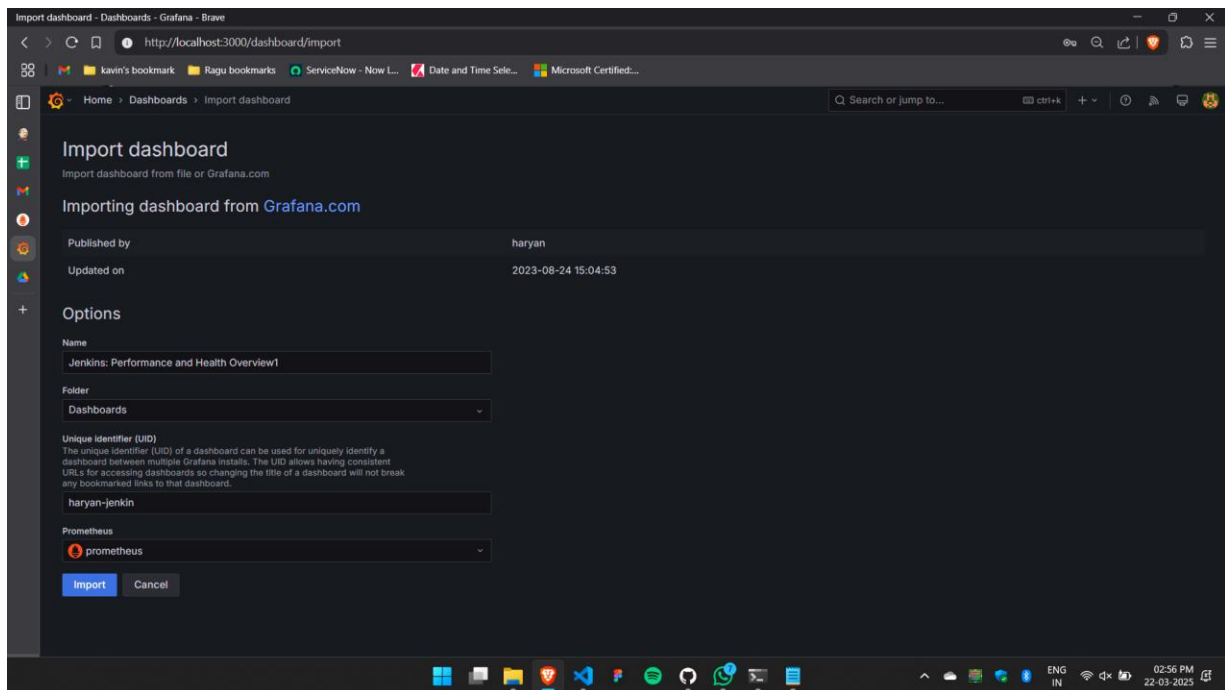
Node Exporter:



Dashboard:



Jenkins Overview:



Dashboard:

