

PROMETHEUS & GRAFANA

Prometheus is an open-source system monitoring and alerting toolkit originally built at SoundCloud.

It is now a standalone open source project .

Prometheus joined the Cloud Native Computing Foundation in 2016 as the second hosted project, after Kubernetes.

Features

1. a multi-dimensional data model with time series data identified by metric name and key/value pairs
2. PromQL, a flexible query language to leverage this dimensionality
3. no reliance on distributed storage; single server nodes are autonomous
4. time series collection happens via a pull model over HTTP
5. pushing time series is supported via an intermediary gateway
6. targets are discovered via service discovery or static configuration
7. multiple modes of graphing and dashboarding support

Prometheus.service

[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

Node_exporter.service

[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

```

nandhu2645@LAPTOP-ITVBN X + v
nandhu2645@LAPTOP-ITVBN28:~$ minikube start
minikube v1.35.0 on Ubuntu 24.04 (amd64)
Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.46 ...
Updating the running docker "minikube" container ...
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
  * Using image gcr.io/k8s-minikube/storage-provisioner:v5
  * Enabled addons: default-storageclass, storage-provisioner
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
E0322 07:46:14.413326 2401 logFile.go:53] failed to close the audit log: invalid argument
nandhu2645@LAPTOP-ITVBN28:~$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured

nandhu2645@LAPTOP-ITVBN28:~$ 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/
--2025-03-22 07:46:46-- 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%2Fs3%2Faws4_request&X-Amz-Date=20250322T074648Z&X-Amz-Expires=300&X-Amz-Signature=286c34944cb17a56c75ba3f18c576a663cf7294f115fbbe01aa8e214b731e7f&X-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 07:46:47-- 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%2Fs3%2Faws4_request&X-Amz-Date=20250322T074648Z&X-Amz-Expires=300&X-Amz-Signature=286c34944cb17a56c75ba3f18c576a663cf7294f115fbbe01aa8e214b731e7f&X-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)... 185.199.108.133, 185.199.109.133, 185.199.110.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.108.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 95713866 (91M) [application/octet-stream]
Saving to: 'prometheus-2.47.1.linux-amd64.tar.gz'

```

```

nandhu2645@LAPTOP-ITVBN X + v
The job identifier is 1027 and the job result is failed.
nandhu2645@LAPTOP-ITVBN28:~$ prometheus --config.file=/etc/prometheus/prometheus.yml
ts=2025-03-22T07:49:16.901Z caller=main.go:539 level=info msg="No time or size retention was set so using the default time retention" duration=15d
ts=2025-03-22T07:49:16.901Z caller=main.go:583 level=info msg="Starting Prometheus Server" mode=server version="(version=2.47.1, branch=HEAD, revision=c4da8beff37cc004f1dc4ab9d9e73193f51aaeb)"
ts=2025-03-22T07:49:16.901Z caller=main.go:588 level=info build_context="(go=go1.21.1, platform=linux/amd64, user=root@4829338363be, date=20231004-10:31:16, tags=netgo,builtinassets,stringlabels)"
ts=2025-03-22T07:49:16.901Z caller=main.go:589 level=info host_details="(Linux 5.15.146.1-microsoft-standard-WSL2 #1 SMP Thu Jan 11 04:09:03 UTC 2024 x86_64 LAPTOP-ITVBN28 )"
ts=2025-03-22T07:49:16.901Z caller=main.go:590 level=info fd_limits="(soft=1048576, hard=1048576)"
ts=2025-03-22T07:49:16.902Z caller=main.go:591 level=info vm_limits="(soft=unlimited, hard=unlimited)"
ts=2025-03-22T07:49:16.908Z caller=web.go:566 level=info component=web msg="Start listening for connections" address=0.0.0.0:9090
ts=2025-03-22T07:49:16.910Z caller=main.go:1024 level=info msg="Starting TSDB ..."
ts=2025-03-22T07:49:16.911Z caller=ts_config.go:274 level=info component=web msg="Listening on" address=[:]:9090
ts=2025-03-22T07:49:16.911Z caller=ts_config.go:277 level=info component=web msg="TLS is disabled." http2=false address=[:]:9090
ts=2025-03-22T07:49:16.928Z caller=head.go:680 level=info component=tsdb msg="Replaying on-disk memory mappable chunks if any"
ts=2025-03-22T07:49:16.928Z caller=head.go:681 level=info component=tsdb msg="On-disk memory mappable chunks replay completed" duration=2.124µs
ts=2025-03-22T07:49:16.928Z caller=head.go:689 level=info component=tsdb msg="Replaying WAL, this may take a while"
ts=2025-03-22T07:49:16.932Z caller=head.go:760 level=info component=tsdb msg="WAL segment loaded" segment=0 maxSegment=0
ts=2025-03-22T07:49:16.932Z caller=head.go:797 level=info component=tsdb msg="WAL replay completed" checkpoint_replay_duration=20.398µs wal_replay_duration=4.108105ms wbl_replay_duration=341ns total_replay_duration=4.164615ms
ts=2025-03-22T07:49:16.940Z caller=main.go:1045 level=info fs_type=EXT4_SUPER_MAGIC
ts=2025-03-22T07:49:16.940Z caller=main.go:1048 level=info msg="TSDB started"
ts=2025-03-22T07:49:16.940Z caller=main.go:1229 level=info msg="Loading configuration file" filename=/etc/prometheus/prometheus.yml
ts=2025-03-22T07:49:16.941Z caller=main.go:1266 level=info msg="Completed loading of configuration file" filename=/etc/prometheus/prometheus.yml totalDuration=1.044549ms db_storage=2.338µs remote_storage=2.702µs web_handler=668ns query_engine=1.313µs scrape=385.093µs scrape_sd=163.431µs notify=32.667µs notify_sd=191.746µs rules=13.37µs tracing=8.689µs
ts=2025-03-22T07:49:16.941Z caller=main.go:1009 level=info msg="Server is ready to receive web requests."
ts=2025-03-22T07:49:16.941Z caller=manager.go:1009 level=info component=rule_manager msg="Starting rule manager..."
ts=2025-03-22T07:49:16.941Z caller=manager.go:859 level=warn msg="Received SIGTERM, exiting gracefully..."
ts=2025-03-22T07:49:16.941Z caller=manager.go:883 level=info msg="Stopping scrape discovery manager..."
ts=2025-03-22T07:49:16.941Z caller=manager.go:897 level=info msg="Stopping notify discovery manager..."
ts=2025-03-22T07:49:16.941Z caller=manager.go:1023 level=info component=rule_manager msg="Stopping rule manager..."
ts=2025-03-22T07:49:16.941Z caller=manager.go:1033 level=info component=rule_manager msg="Rule manager stopped"
ts=2025-03-22T07:49:16.941Z caller=main.go:934 level=info msg="Stopping scrape manager..."
ts=2025-03-22T07:49:16.941Z caller=main.go:879 level=info msg="Scrape discovery manager stopped"
ts=2025-03-22T07:49:16.941Z caller=main.go:893 level=info msg="Notify discovery manager stopped"
ts=2025-03-22T07:49:16.941Z caller=main.go:926 level=info msg="Scrape manager stopped"
ts=2025-03-22T07:49:16.941Z caller=notifier.go:603 level=info component=notifier msg="Stopping notification manager..."
ts=2025-03-22T07:49:16.941Z caller=main.go:1155 level=info msg="Notifier manager stopped"
ts=2025-03-22T07:49:16.941Z caller=main.go:1167 level=info msg="See you next time!"
nandhu2645@LAPTOP-ITVBN28:~$ sudo nano /etc/systemd/system/prometheus.service
nandhu2645@LAPTOP-ITVBN28:~$ ls -l /var/lib/prometheus
ls -l /etc/prometheus

```

```
nandhu2645@LAPTOP-1TVBN  X + v
nandhu2645@LAPTOP-1TVBND2B:~$ ls -l /var/lib/prometheus
ls -l /etc/prometheus
ls: cannot access '/var/lib/prometheus': No such file or directory
total 12
drwxr-xr-x 2 prometheus prometheus 4096 Oct  4 2023 console_libraries
drwxr-xr-x 2 prometheus prometheus 4096 Oct  4 2023 consoles
-rw-r--r-- 1 prometheus prometheus  934 Oct  4 2023 prometheus.yml
nandhu2645@LAPTOP-1TVBND2B:~$ sudo chown -R prometheus:prometheus /var/lib/prometheus /etc/prometheus
chown: cannot access '/var/lib/prometheus': No such file or directory
nandhu2645@LAPTOP-1TVBND2B:~$ sudo mkdir -p /var/lib/prometheus
sudo chown -R prometheus:prometheus /var/lib/prometheus /etc/prometheus
sudo chmod -R 775 /var/lib/prometheus
nandhu2645@LAPTOP-1TVBND2B:~$ sudo nano /etc/systemd/system/prometheus.service
nandhu2645@LAPTOP-1TVBND2B:~$ ExecStart=/usr/local/bin/prometheus --config.file=/etc/prometheus/
-bash: --config.file=/etc/prometheus/prometheus.yml: No such file or directory
nandhu2645@LAPTOP-1TVBND2B:~$ sudo systemctl daemon-reload
sudo systemctl restart prometheus
sudo systemctl status prometheus
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
   Active: active (running) since Sat 2025-03-22 07:51:49 UTC; 17ms ago
     Main PID: 3208 (prometheus)
        Tasks: 5 (limit: 4576)
       Memory: 5.0M ( )
      CGroup: /system.slice/prometheus.service
              └─3208 /usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --sto

Mar 22 07:51:49 LAPTOP-1TVBND2B systemd[1]: Started prometheus.service - Prometheus.
```

```
nandhu2645@LAPTOP-1TVBN X + v
nandhu2645@LAPTOP-1TVBND2B:~$ ls -l /var/lib/prometheus
ls -l /etc/prometheus
ls: cannot access '/var/lib/prometheus': No such file or directory
total 12
drwxr-xr-x 2 prometheus prometheus 4096 Oct 4 2023 console_libraries
drwxr-xr-x 2 prometheus prometheus 4096 Oct 4 2023 consoles
-rw-r--r-- 1 prometheus prometheus 934 Oct 4 2023 prometheus.yml
nandhu2645@LAPTOP-1TVBND2B:~$ sudo chown -R prometheus:prometheus /var/lib/prometheus /etc/prometheus
chown: cannot access '/var/lib/prometheus': No such file or directory
nandhu2645@LAPTOP-1TVBND2B:~$ sudo mkdir -p /var/lib/prometheus
sudo chown -R prometheus:prometheus /var/lib/prometheus /etc/prometheus
sudo chmod -R 775 /var/lib/prometheus
nandhu2645@LAPTOP-1TVBND2B:~$ sudo nano /etc/systemd/system/prometheus.service
nandhu2645@LAPTOP-1TVBND2B:~$ ExecStart=/usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --storage.tsdb.path=/var/lib/prometheus
--bash: --config.file=/etc/prometheus/prometheus.yml: No such file or directory
nandhu2645@LAPTOP-1TVBND2B:~$ sudo systemctl daemon-reload
sudo systemctl restart prometheus
sudo systemctl status prometheus
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
   Active: active (running) since Sat 2025-03-22 07:51:49 UTC; 17ms ago
   Main PID: 3208 (prometheus)
     Tasks: 5 (limit: 4576)
    Memory: 5.0M ()
   CGroup: /system.slice/prometheus.service
           └─3208 /usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --storage.tsdb.path=/data --web.console.templates=/etc/prometheu
Mar 22 07:51:49 LAPTOP-1TVBND2B systemd[1]: Started prometheus.service - Prometheus.
nandhu2645@LAPTOP-1TVBND2B:~$ journalctl -xeu prometheus.service
Support: http://www.ubuntu.com/support

The unit prometheus.service has entered the 'failed' state with result 'exit-code'.
Mar 22 07:47:53 LAPTOP-1TVBND2B systemd[1]: Failed to start prometheus.service - Prometheus.
Subject: A start job for unit prometheus.service has failed
Defined-By: systemd
Support: http://www.ubuntu.com/support

A start job for unit prometheus.service has finished with a failure.

The job identifier is 1027 and the job result is failed.
Mar 22 07:51:49 LAPTOP-1TVBND2B systemd[1]: Started prometheus.service - Prometheus.
Subject: A start job for unit prometheus.service has finished successfully
Defined-By: systemd
Support: http://www.ubuntu.com/support
```

```
nandhu2645@LAPTOP-1TVBN X + v
nandhu2645@LAPTOP-1TVBND2B:~$ sudo systemctl enable prometheus
sudo systemctl start prometheus
sudo systemctl status prometheus
journalctl -u prometheus -f --no-pager
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
   Active: active (running) since Sat 2025-03-22 07:51:49 UTC; 2min 45s ago
   Main PID: 3208 (prometheus)
     Tasks: 17 (limit: 4576)
    Memory: 34.6M ()
   CGroup: /system.slice/prometheus.service
           └─3208 /usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --storage.tsdb.path=/data --web.console.templates=/etc/prometheu
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.549Z caller=head.go:681 level=info component=tsdb msg="On-disk memory mappable chub
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.549Z caller=head.go:689 level=info component=tsdb msg="Replaying WAL, this may take
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.551Z caller=head.go:760 level=info component=tsdb msg="WAL segment loaded" segment=
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.551Z caller=head.go:797 level=info component=tsdb msg="WAL replay completed" checkp
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.561Z caller=main.go:1045 level=info fs_type=EXT4_SUPER_MAGIC
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.561Z caller=main.go:1048 level=info msg="TSDB started"
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=main.go:1229 level=info msg="Loading configuration file" filename=/etc
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=main.go:1266 level=info msg="Completed loading of configuration file" >
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=main.go:1009 level=info msg="Server is ready to receive web requests."
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=manager.go:1009 level=info component="rule manager" msg="Starting rule
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.549Z caller=head.go:681 level=info component=tsdb msg="On-disk memory mappable chunks replay comp
leted" duration=3.336µs
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.549Z caller=head.go:689 level=info component=tsdb msg="Replaying WAL, this may take a while"
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.551Z caller=head.go:760 level=info component=tsdb msg="WAL segment loaded" segment=0 maxSegment=0
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.551Z caller=head.go:797 level=info component=tsdb msg="WAL replay completed" checkpoint_replay_du
rations=23.064µs wal_replay_duration=1.904012ms wbl_replay_duration=245ns total_replay_duration=1.94952ms
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.561Z caller=main.go:1045 level=info fs_type=EXT4_SUPER_MAGIC
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.561Z caller=main.go:1048 level=info msg="TSDB started"
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=main.go:1229 level=info msg="Loading configuration file" filename=/etc/prometheus/pro
metheus.yml
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=main.go:1266 level=info msg="Completed loading of configuration file" filename=/etc/p
rometheus/prometheus.yml totalDuration=589.261µs db_storage=2.234µs remote_storage=2.64µs web_handler=685ns query_engine=1.263µs scrape=216.449µs scrape_sd=38.129µs notif
y=36.278µs notify_sd=9.695µs rules=2.255µs tracing=6.504µs
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=main.go:1009 level=info msg="Server is ready to receive web requests."
Mar 22 07:51:49 LAPTOP-1TVBND2B prometheus[3208]: ts=2025-03-22T07:51:49.562Z caller=manager.go:1009 level=info component="rule manager" msg="Starting rule manager..."
^C
nandhu2645@LAPTOP-1TVBND2B:~$ sudo useradd \
--system \
--no-create-home \
--shell /bin/false node_exporter
nandhu2645@LAPTOP-1TVBND2B:~$ wget https://github.com/prometheus/node_exporter/releases/download/v1.6.1/node_exporter-1.6.1.linux-amd64.tar.gz
tar -xvf node_exporter-1.6.1.linux-amd64.tar.gz
```

```

nandhu2645@LAPTOP-ITVBN X + v
nandhu2645@LAPTOP-ITVBN:~$ wget https://github.com/prometheus/node_exporter/releases/download/v1.6.1/node_exporter-1.6.1.linux-amd64.tar.gz
tar -xvf node_exporter-1.6.1.linux-amd64.tar.gz
--2025-03-22 07:55:48-- https://github.com/prometheus/node_exporter/releases/download/v1.6.1/node_exporter-1.6.1.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/9524057/5509b569-5c34-471e-8598-c05c0733bb7f?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20250322%2Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20250322T075550Z&X-Amz-Expires=300&X-Amz-Signature=89fdc48d73df6b923a0af6b9563e371399772381aee3f1a9d1aeeadcfcefd6eb6&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.6.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2025-03-22 07:55:49-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/5509b569-5c34-471e-8598-c05c0733bb7f?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20250322%2Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20250322T075550Z&X-Amz-Expires=300&X-Amz-Signature=89fdc48d73df6b923a0af6b9563e371399772381aee3f1a9d1aeeadcfcefd6eb6&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.6.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.108.133, 185.199.109.133, 185.199.110.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)[185.199.108.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 10368103 (9.9M) [application/octet-stream]
Saving to: 'node_exporter-1.6.1.linux-amd64.tar.gz'

node_exporter-1.6.1.linux-amd64.tar.gz 100%[=====>] 9.89M 11.4MB/s in 0.9s

2025-03-22 07:55:51 (11.4 MB/s) - 'node_exporter-1.6.1.linux-amd64.tar.gz' saved [10368103/10368103]

nandhu2645@LAPTOP-ITVBN:~$ sudo mv \
node_exporter-1.6.1.linux-amd64/node_exporter \
/usr/local/bin/
nandhu2645@LAPTOP-ITVBN:~$ rm -rf node_exporter*
nandhu2645@LAPTOP-ITVBN:~$ node_exporter --version
node_exporter, version 1.6.1 (branch: HEAD, revision: 4a1b7760c1873a8233f3ff55afcedbb63b8d84)
 build user: root@586879db11e5
 build date: 20230717-12:10:52
 go version: go1.20.6
 platform: linux/amd64
 tags: netgo osusergo static_build
nandhu2645@LAPTOP-ITVBN:~$ sudo vim /etc/systemd/system/node_exporter.service
nandhu2645@LAPTOP-ITVBN:~$ sudo systemctl enable node_exporter
sudo systemctl start node_exporter
sudo systemctl status node_exporter
journalctl -u node_exporter -f --no-pager
Created symlink /etc/systemd/system/multi-user.target.wants/node_exporter.service → /etc/systemd/system/node_exporter.service.

```

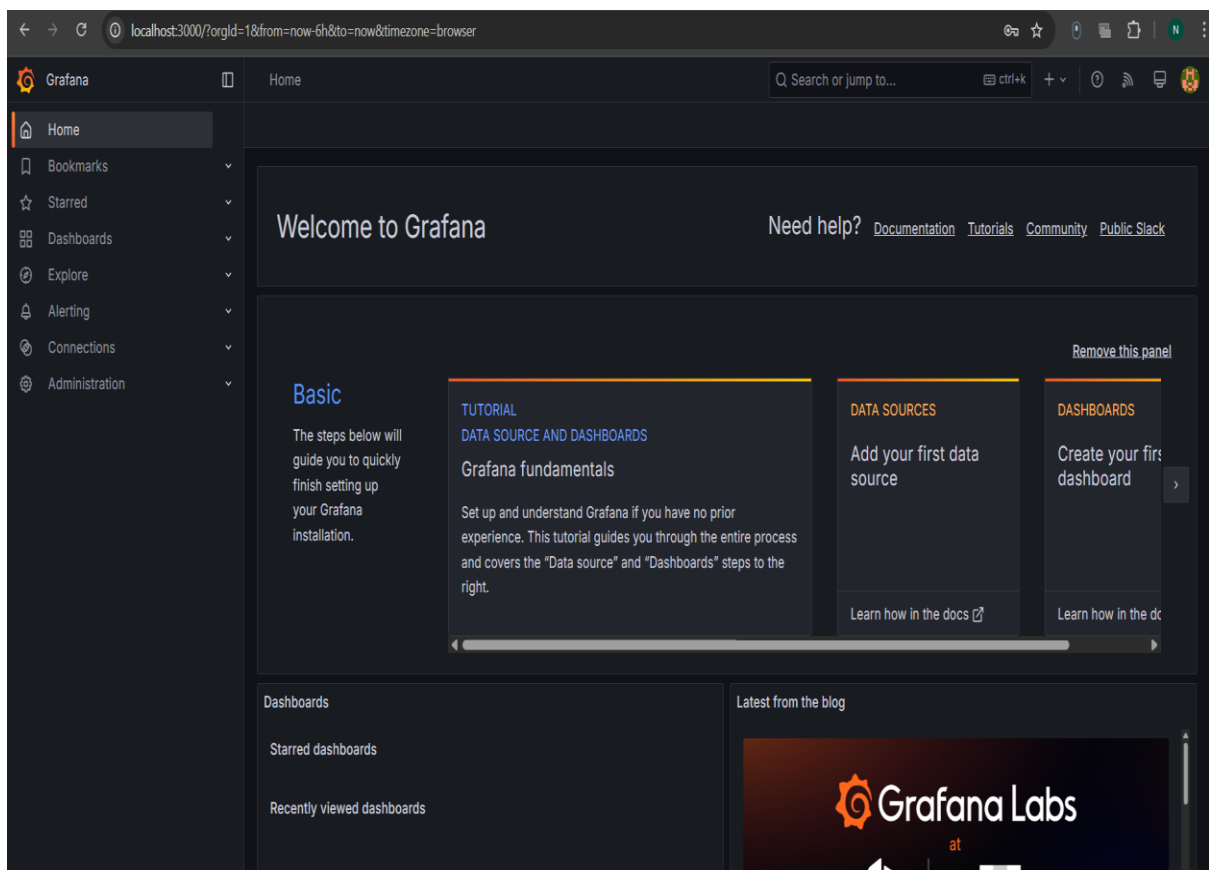
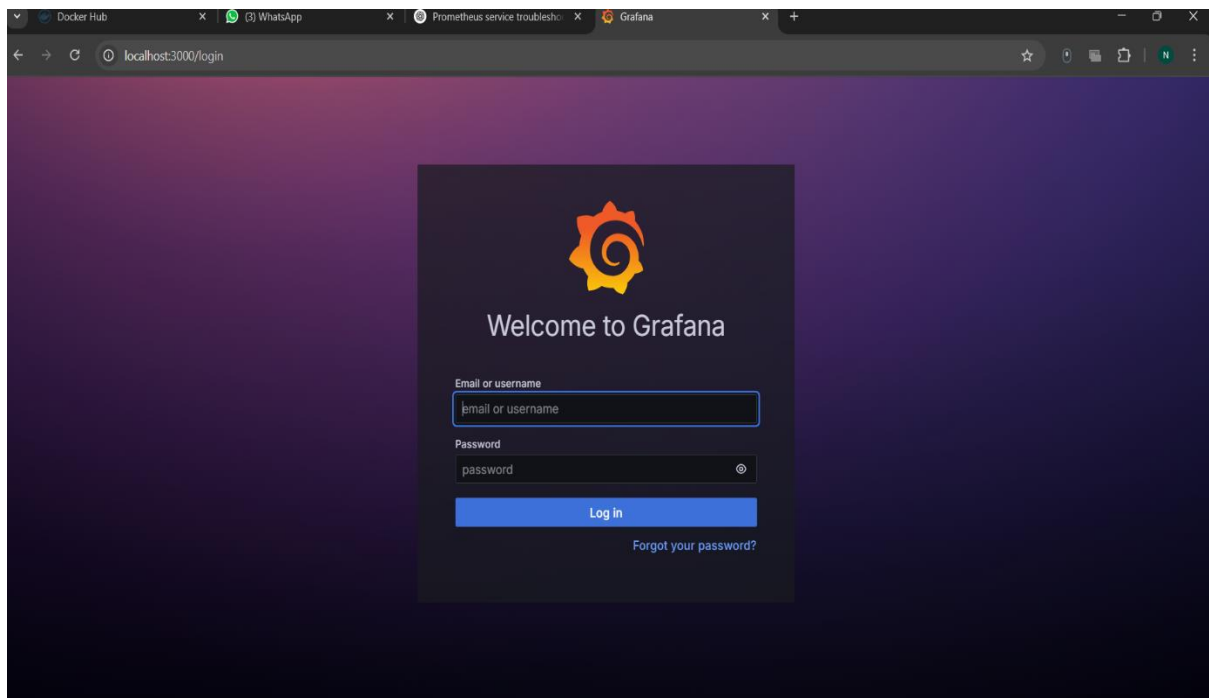
```

nandhu2645@LAPTOP-ITVBN X + v
nandhu2645@LAPTOP-ITVBN:~$ sudo vim /etc/prometheus/prometheus.yml
nandhu2645@LAPTOP-ITVBN:~$ promtool check config /etc/prometheus/prometheus.yml
Checking /etc/prometheus/prometheus.yml
FAILED: parsing YAML file /etc/prometheus/prometheus.yml: yaml: line 36: did not find expected ',', or ']'

nandhu2645@LAPTOP-ITVBN:~$ sudo vim /etc/prometheus/prometheus.yml
nandhu2645@LAPTOP-ITVBN:~$ promtool check config /etc/prometheus/prometheus.yml
Checking /etc/prometheus/prometheus.yml
SUCCESS: /etc/prometheus/prometheus.yml is valid prometheus config file syntax

nandhu2645@LAPTOP-ITVBN:~$ curl -X POST http://localhost:9090/-/reload
nandhu2645@LAPTOP-ITVBN:~$ 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
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
software-properties-common is already the newest version (0.99.49.1).
software-properties-common set to manually installed.
The following NEW packages will be installed:
 apt-transport-https
0 upgraded, 1 newly installed, 0 to remove and 90 not upgraded.
Need to get 3974 B of archives.
After this operation, 35.8 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble/universe amd64 apt-transport-https all 2.7.14build2 [3974 B]
Fetched 3974 B in 1s (3482 B/s)
Selecting previously unselected package apt-transport-https.
(Reading database ... 46816 files and directories currently installed.)
Preparing to unpack .../apt-transport-https-2.7.14build2_all.deb ...
Unpacking apt-transport-https (2.7.14build2) ...
Setting up apt-transport-https (2.7.14build2) ...
Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).
OK
deb https://packages.grafana.com/oss/deb stable main
Ign:1 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Get:3 https://packages.grafana.com/oss/deb stable InRelease [7661 B]
Hit:4 https://pkg.jenkins.io/debian-stable binary/ Release
Get:5 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:7 https://packages.grafana.com/oss/deb stable/main amd64 Packages [369 kB]

```



← → ↻ localhost:9090/graph?g0.expr=8&g0.tab=1&g0.stacked=0&g0.show_exemplars=0&g0.range_input=1h ☆ 🗄️ 📄 N ⋮

Prometheus Alerts Graph Status ▾ Help ⚙️ 🌙 0

☐ Use local time ☐ Enable query history ☒ Enable autocomplete ☒ Enable highlighting ☒ Enable linter

🔍 Expression (press Shift+Enter for newlines) ⌵ ⌲ ⌲ Execute

Table Graph

< Evaluation time >

No data queried yet

Remove Panel

Add Panel

← → ↻ localhost:9090/targets?search= ☆ 🗄️ 📄 N ⋮

Prometheus Alerts Graph Status ▾ Help ⚙️ 🌙 0

Targets

All scrape pools ▾ All Unhealthy Collapse All 🔍 Filter by endpoint or labels 📄 Unknown 📄 Unhealthy 📄 Healthy

[jenkins \(0/1 up\)](#) [show more](#)

[node_export \(1/1 up\)](#) [show more](#)

[prometheus \(1/1 up\)](#) [show less](#)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://localhost:9090/metrics	UP	instance="localhost:9090" job="prometheus"	10.131s ago	4.098ms	


```
localhost:9090/metrics

# HELP go_gc_duration_seconds A summary of the pause duration of garbage collection cycles.
# TYPE go_gc_duration_seconds summary
go_gc_duration_seconds{quantile="0"} 1.9692e-05
go_gc_duration_seconds{quantile="0.25"} 0.000209215
go_gc_duration_seconds{quantile="0.5"} 0.000936643
go_gc_duration_seconds{quantile="0.75"} 0.002846402
go_gc_duration_seconds{quantile="1"} 0.026449772
go_gc_duration_seconds_sum 0.149426974
go_gc_duration_seconds_count 46
# HELP go_goroutines Number of goroutines that currently exist.
# TYPE go_goroutines gauge
go_goroutines 36
# HELP go_info Information about the Go environment.
# TYPE go_info gauge
go_info{version="go1.21.1"} 1
# HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
# TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 2.9120632e+07
# HELP go_memstats_alloc_bytes_total Total number of bytes allocated, even if freed.
# TYPE go_memstats_alloc_bytes_total counter
go_memstats_alloc_bytes_total 3.55645768e+08
# HELP go_memstats_buck_hash_sys_bytes Number of bytes used by the profiling bucket hash table.
# TYPE go_memstats_buck_hash_sys_bytes gauge
go_memstats_buck_hash_sys_bytes 1.498583e+06
# HELP go_memstats_frees_total Total number of frees.
# TYPE go_memstats_frees_total counter
go_memstats_frees_total 2.050495e+06
# HELP go_memstats_gc_sys_bytes Number of bytes used for garbage collection system metadata.
# TYPE go_memstats_gc_sys_bytes gauge
go_memstats_gc_sys_bytes 4.84536e+06
# HELP go_memstats_heap_alloc_bytes Number of heap bytes allocated and still in use.
# TYPE go_memstats_heap_alloc_bytes gauge
go_memstats_heap_alloc_bytes 2.9120632e+07
# HELP go_memstats_heap_idle_bytes Number of heap bytes waiting to be used.
# TYPE go_memstats_heap_idle_bytes gauge
go_memstats_heap_idle_bytes 1.9636224e+07
# HELP go_memstats_heap_inuse_bytes Number of heap bytes that are in use.
# TYPE go_memstats_heap_inuse_bytes gauge
go_memstats_heap_inuse_bytes 3.3316864e+07
# HELP go_memstats_heap_objects Number of allocated objects.
# TYPE go_memstats_heap_objects gauge
go_memstats_heap_objects 128203
# HELP go_memstats_heap_released_bytes Number of heap bytes released to OS.
# TYPE go_memstats_heap_released_bytes gauge
go_memstats_heap_released_bytes 1.5310848e+07
# HELP go_memstats_heap_sys_bytes Number of heap bytes obtained from system.
# TYPE go_memstats_heap_sys_bytes gauge
```

localhost:3000/connections/datasources/edit/aegldxq6xocu8e

Grafana

Home > Connections > Data sources > prometheus

Cache level ☐ Low

Incremental querying (beta) ☐

Disable recording rules (beta) ☐

Other

Custom query parameters ☐ Example: max_source_resolution=5m&timeout

HTTP method ☐ POST

Use series endpoint ☐

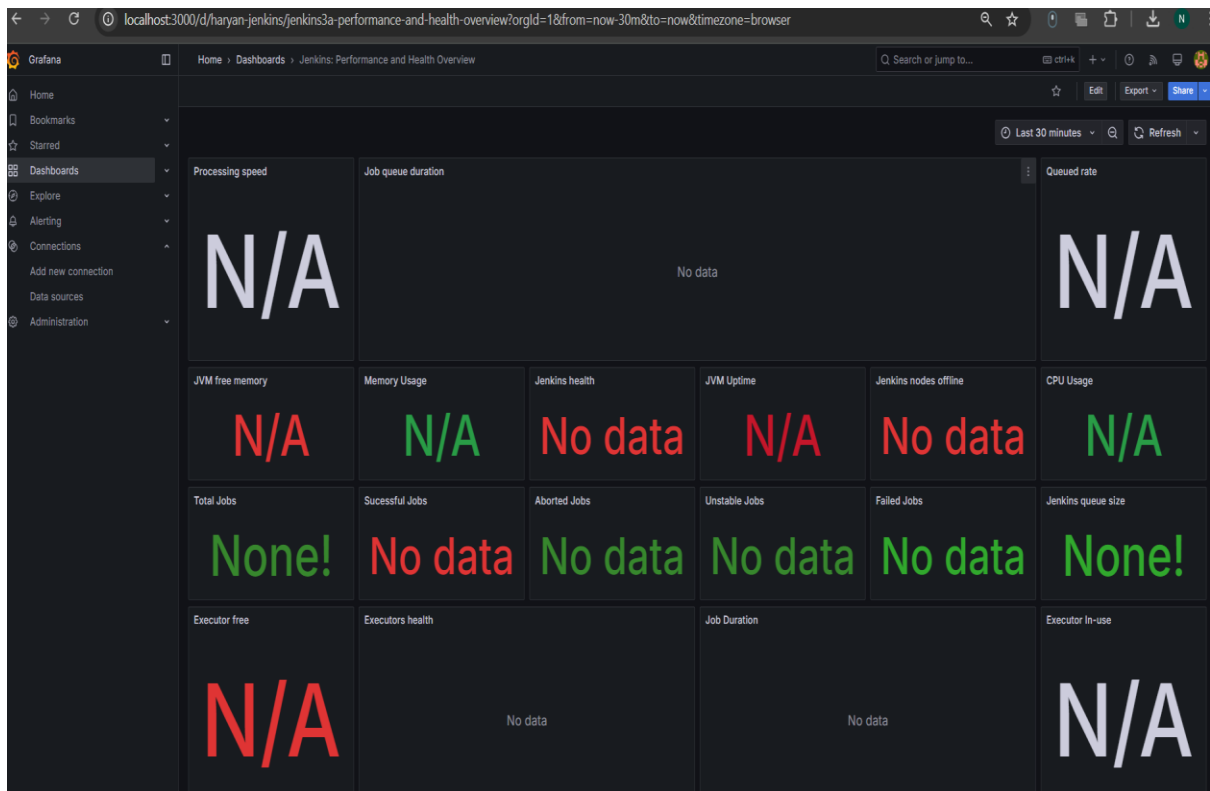
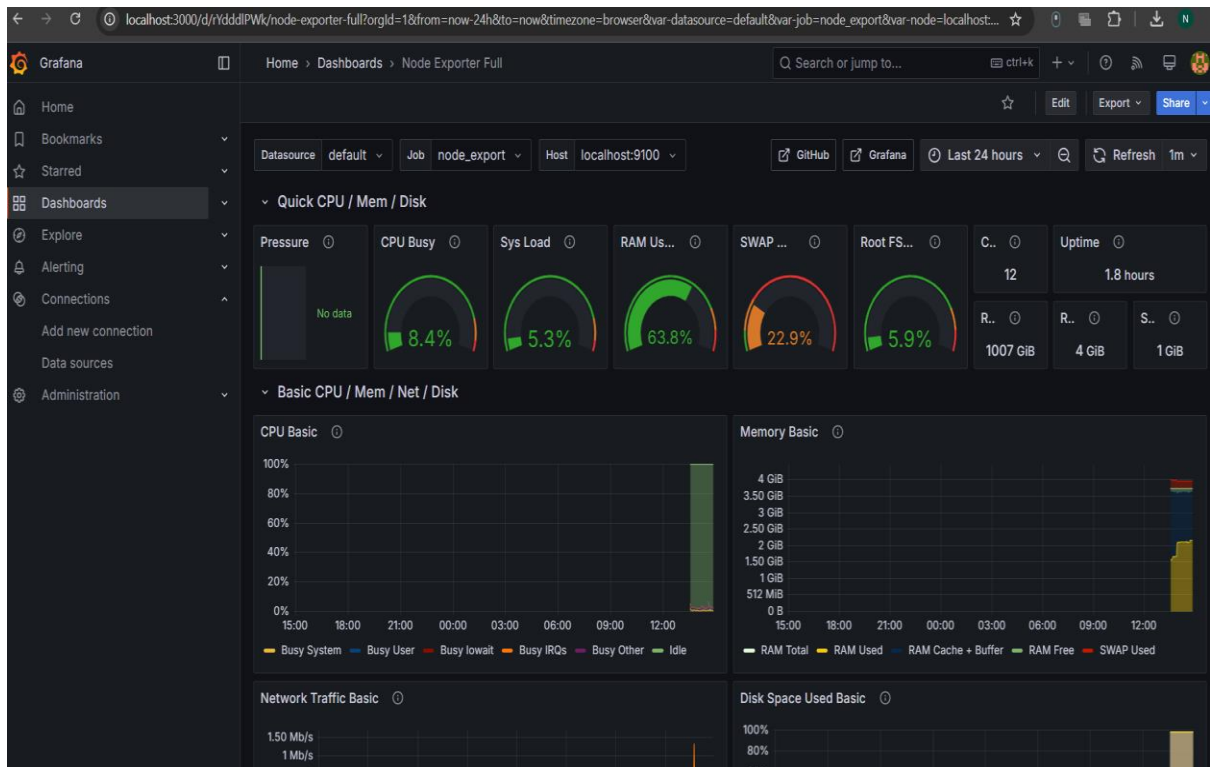
Exemplars

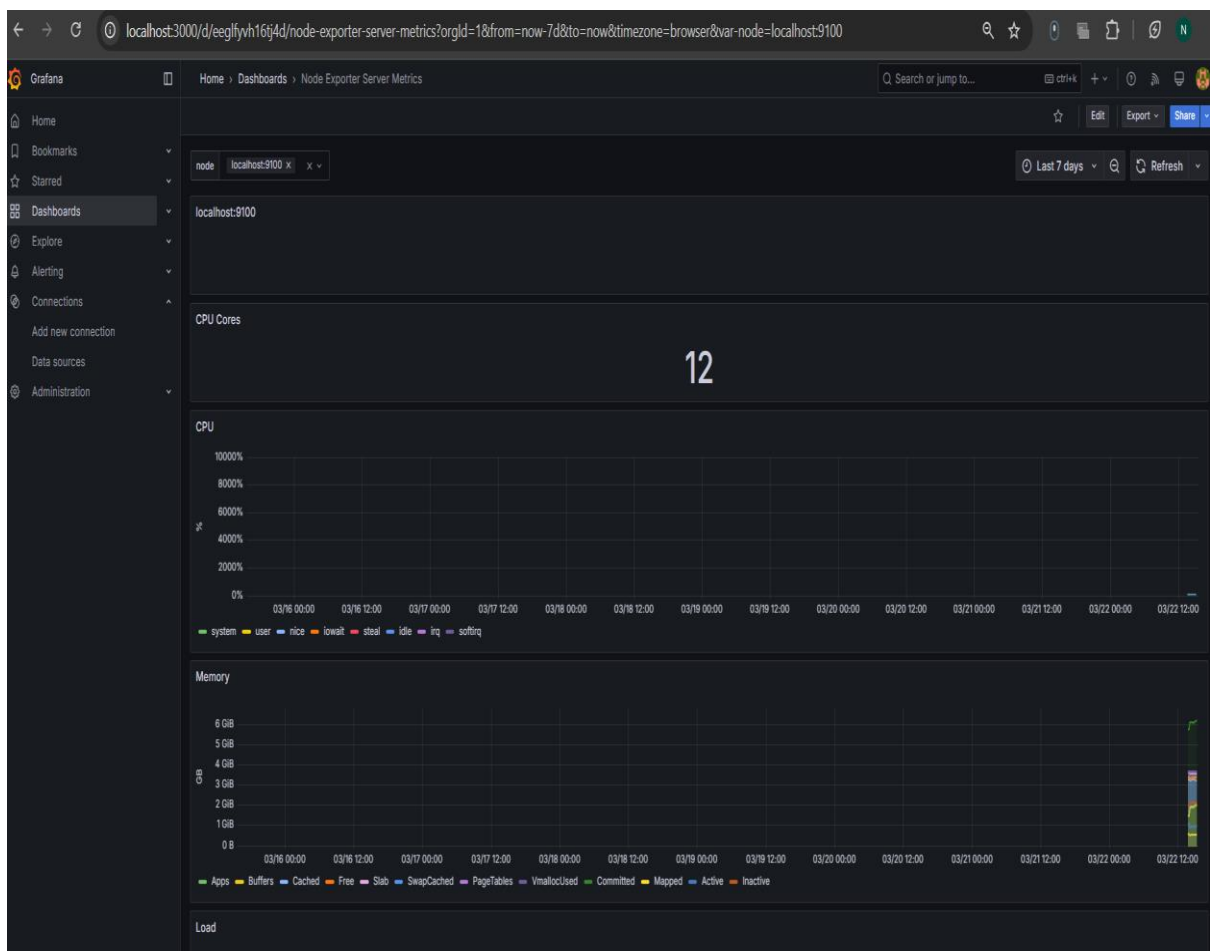
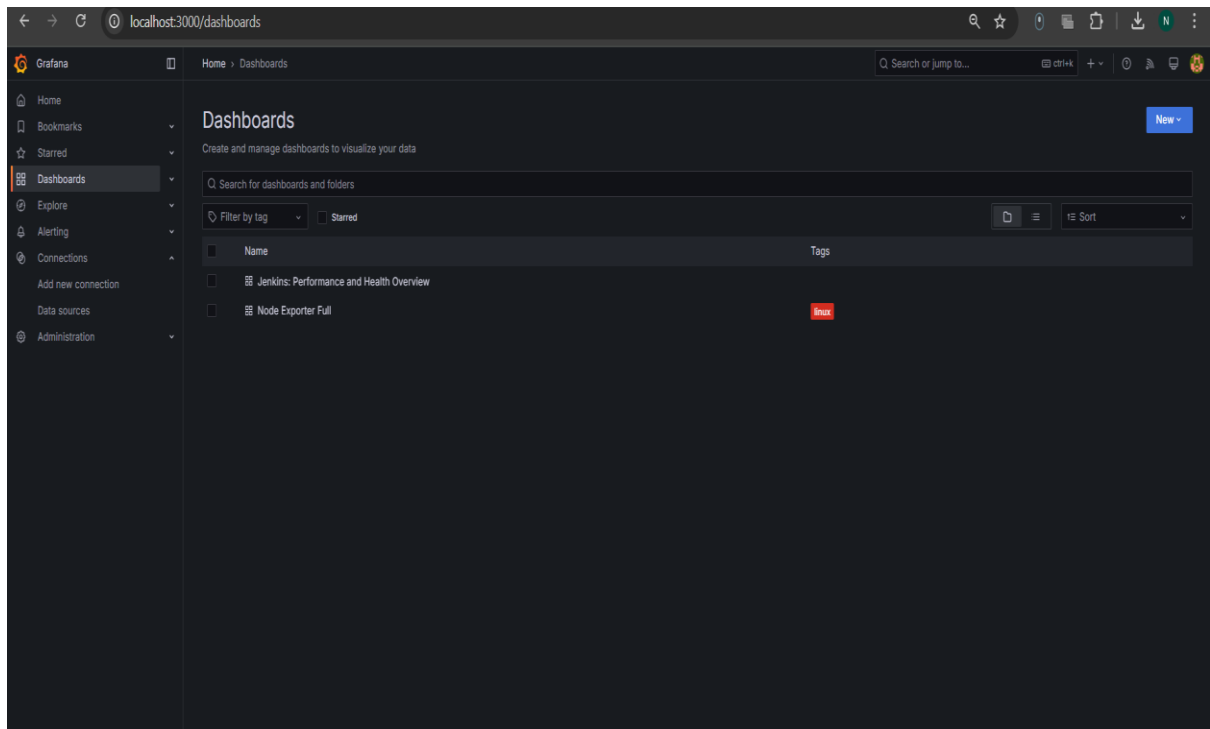
+ Add

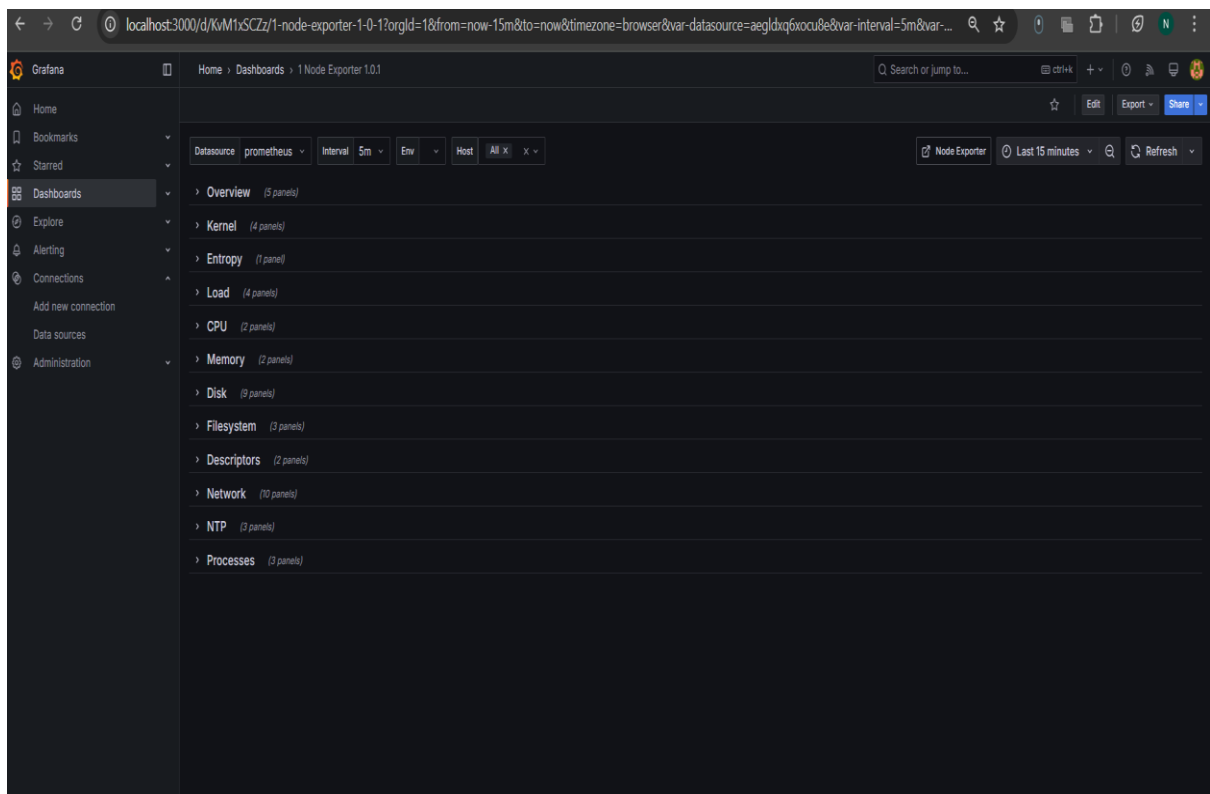
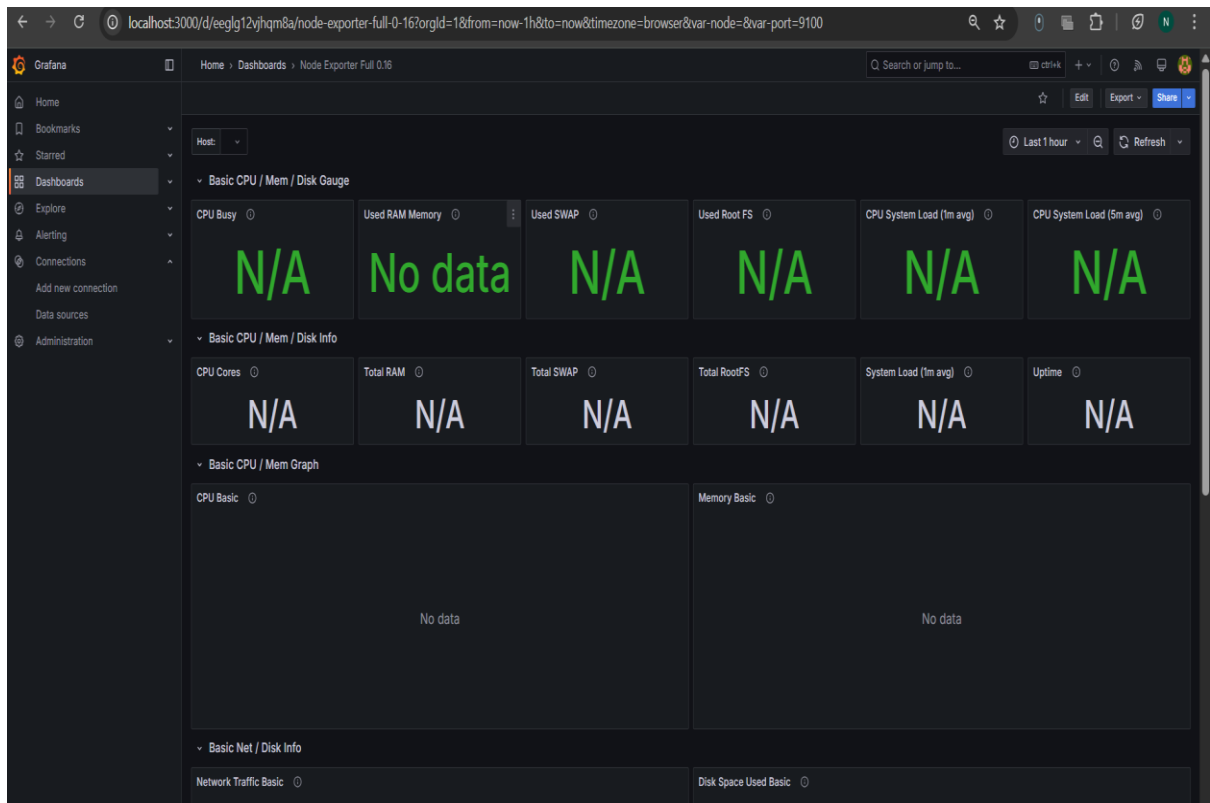
Successfully queried the Prometheus API.

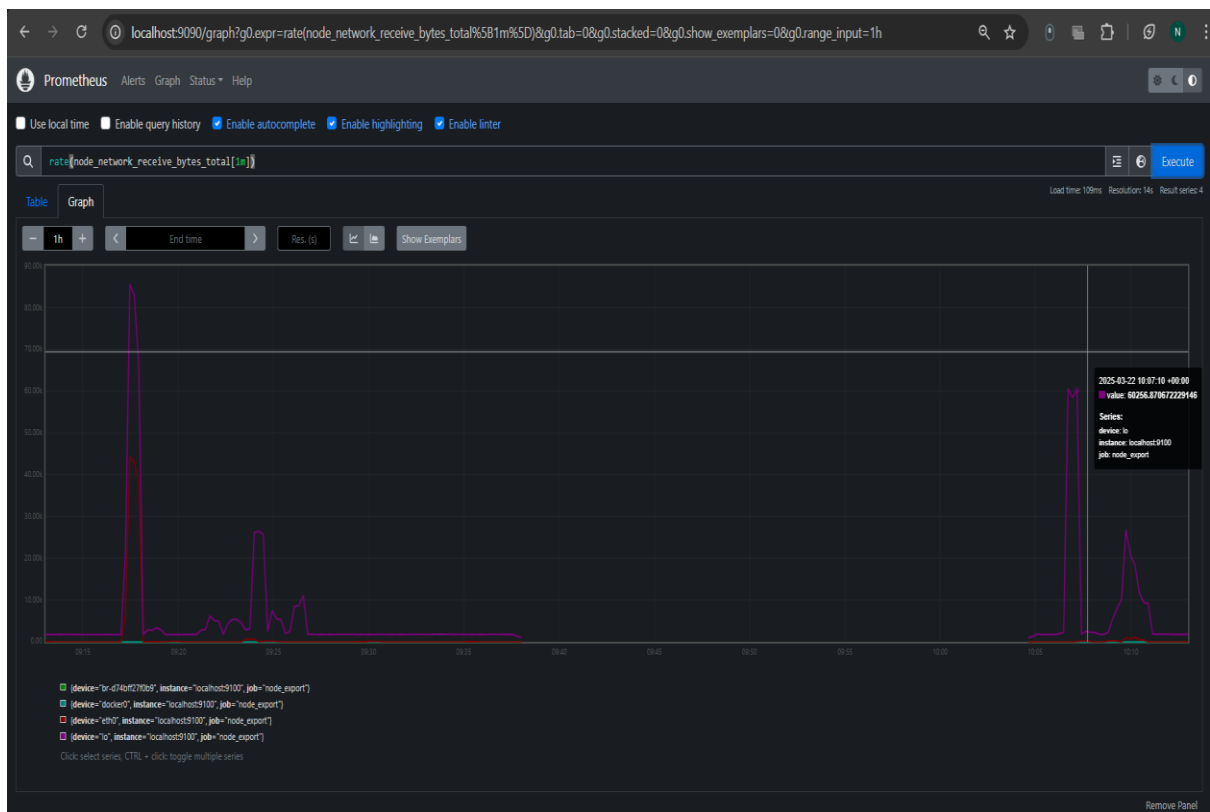
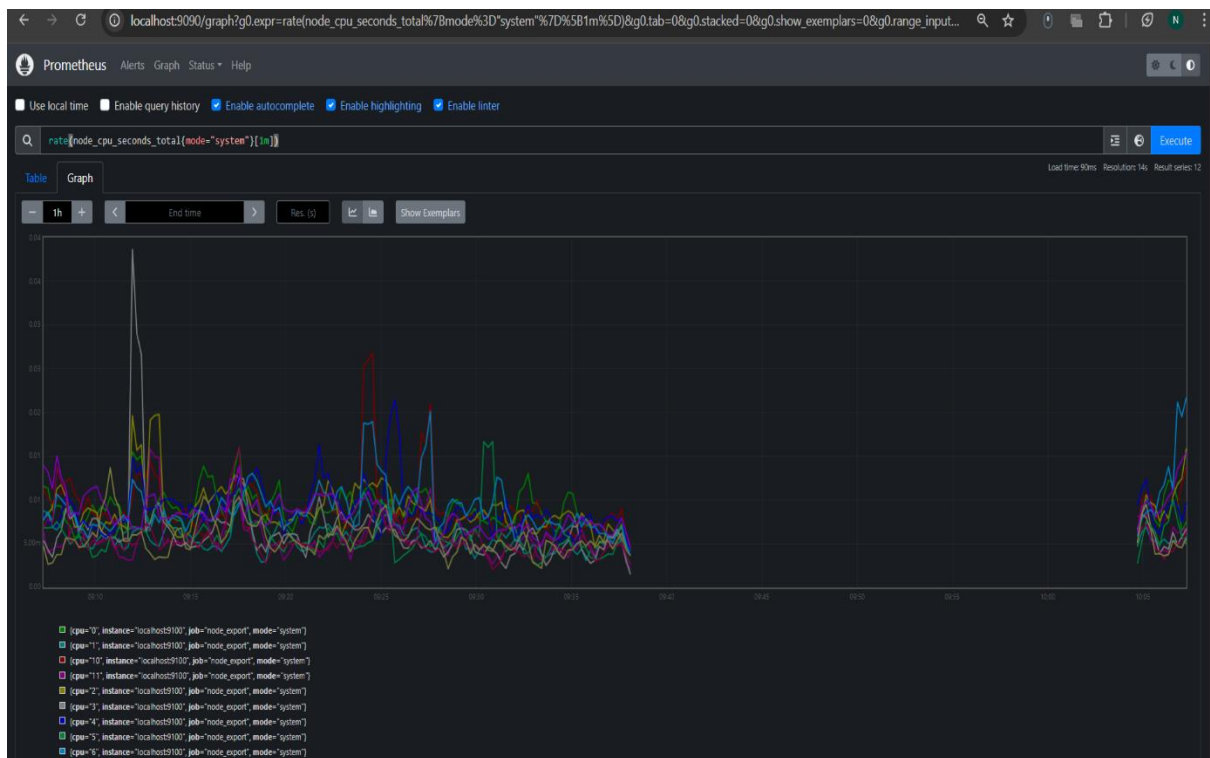
Next, you can start to visualize data by building a dashboard, or by querying data in the Explore view.

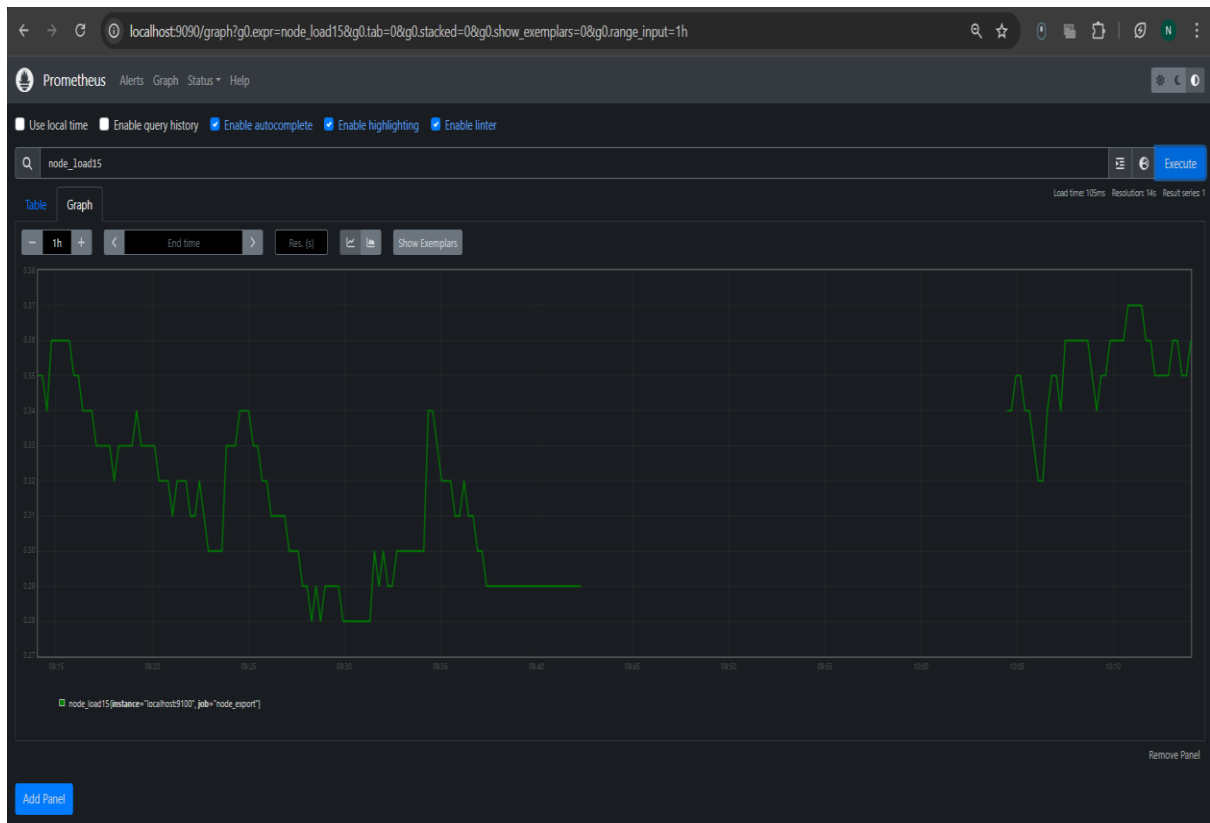
Delete Save & test











localhost:3000/dashboards

Grafana Home Dashboards

Search for dashboards and folders

Filter by tag Starred

Name	Tags
1 Node Exporter 1.0.1	fchiorascu@gmail.com grafana node_exporter prometheus
Jenkins: Performance and Health Overview	
Node Exporter Full	linux
Node Exporter Full 0.16	
Node Exporter Server Metrics	prometheus