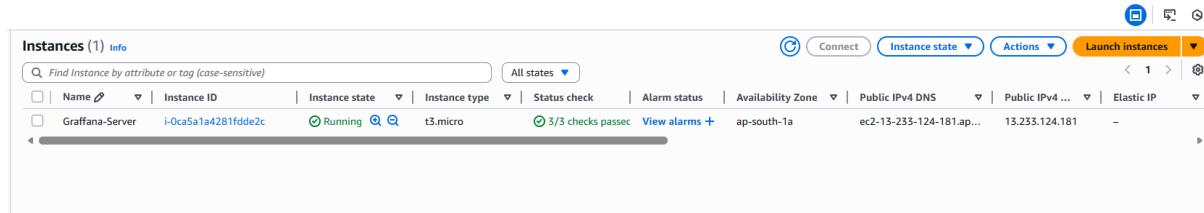


Created EC2 Instance:



Installed and configured service for Graffana, Prometheus and Noteexporter:

```
root@ip-172-31-36-185:~/prometheus-2.52.0.linux-amd64# sudo systemctl status grafana-server
● grafana-server.service - Grafana server
   Loaded: loaded (/etc/systemd/system/grafana-server.service; enabled; preset: enabled)
   Active: active (running) since Sat 2024-02-07 10:21:50 UTC; 48s ago
     Docs: https://docs.grafana.org
 Main PID: 1081 (grafana)
 Tasks: 14 (limit: 1000)
 Memory: 341.1M (peak: 363.3M)
 CPU: 4.575s
 CGroup: /system.slice/grafana-server.service
           └─1081 /usr/share/grafana/bin/grafana server --config=/etc/grafana/grafana.ini --pidfile=/run/grafana/grafana.pid --packaging=deb --cfg=default.paths.logs=/var/log/grafana --cfg=default.paths.

Feb 07 10:22:01 ip-172-31-36-185 grafana[1081]: logger:plugin.backgroundinstaller t=2026-02-07T10:22:01.489702424Z level=info msg="Installing plugin" pluginId=grafana-exploretraces-app version=durable
Feb 07 10:22:02 ip-172-31-36-185 grafana[1081]: logger:plugin.backgroundinstaller t=2026-02-07T10:22:02.075848371Z level=info msg="Installing plugin" pluginId=grafana-exploretraces-app version=durable
Feb 07 10:22:02 ip-172-31-36-185 grafana[1081]: logger:plugin.registration t=2026-02-07T10:22:02.230592682Z level=info msg="Plugin registered" pluginId=grafana-exploretraces-app version=durable
Feb 07 10:22:02 ip-172-31-36-185 grafana[1081]: logger:plugin.backgroundinstaller t=2026-02-07T10:22:02.230600011Z level=info msg="Plugin successfully installed" pluginId=grafana-exploretraces-app version=durable
Feb 07 10:22:02 ip-172-31-36-185 grafana[1081]: logger:plugin.registration t=2026-02-07T10:22:02.230635215Z level=info msg="Installing plugin" pluginId=grafana-metricsdrilldown-app version=durable
Feb 07 10:22:02 ip-172-31-36-185 grafana[1081]: logger:plugin.backgroundinstaller t=2026-02-07T10:22:02.230647754Z level=info msg="Installing plugin" pluginId=grafana-metricsdrilldown-app version=durable
Feb 07 10:22:02 ip-172-31-36-185 grafana[1081]: logger:plugin.registration t=2026-02-07T10:22:02.230651192Z level=info msg="Plugin registered" pluginId=grafana-metricsdrilldown-app version=durable
Feb 07 10:22:02 ip-172-31-36-185 grafana[1081]: logger:plugin.backgroundinstaller t=2026-02-07T10:22:02.230651522Z level=info msg="Plugin successfully installed" pluginId=grafana-metricsdrilldown-app version=durable
root@ip-172-31-36-185:~/prometheus-2.52.0.linux-amd64#
```

```
root@ip-172-31-36-185:~/prometheus-2.52.0.linux-amd64# systemctl status prometheus.service
● prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
   Active: active (running) since Sat 2024-02-07 10:41:06 UTC; 6s ago
     Main PID: 1108 (prometheus)
      Tasks: 1 (limit: 1000)
     Memory: 26.9M (peak: 27.1M)
        CPU: 75ms
       CGroup: /system.slice/prometheus.service
           └─1108 /usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --storage.tsdb.path=/var/lib/prometheus

Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3672 caller=head.go:703 level=info component=tedb msg="On-disk memory mappable chunks replay completed" duration=1.739µs
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3672 caller=head.go:711 level=info component=tedb msg="Replaying WAL, this may take a while"
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3672 caller=main.go:1153 level=info component=tedb msg="WAL segment loaded" segment=0 maxSegment=0
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3745 caller=tedb msg="WAL replay completed" checkpoint_replay_duration=43.834µs wal_replay_duration=43.834µs
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3772 caller=main.go:1153 level=info msg="EXTR4 SUPER MAGIC"
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3772 caller=main.go:1153 level=info msg="#SDB started"
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3772 caller=main.go:1335 level=info msg="Loading configuration file" filename=/etc/prometheus/prometheus.yml
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3772 caller=main.go:1335 level=info msg="Configuration loaded" filename=/etc/prometheus/prometheus.yml totalDuration=43.834µs
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3812 caller=main.go:1114 level=info msg="Server ready to receive web requests."
Feb 07 10:41:06 ip-172-31-36-185 prometheus[1108]: ts=2026-02-07T10:41:06.3812 caller=manager.go:163 level=info component="rule manager" msg="Starting rule manager..."
root@ip-172-31-36-185:~/prometheus-2.52.0.linux-amd64#
```

```
root@ip-172-31-36-185:~/prometheus-2.52.0.linux-amd64# sudo systemctl status node_exporter
● node_exporter.service - Node Exporter
   Loaded: loaded (/etc/systemd/system/node_exporter.service; enabled; preset: enabled)
   Active: active (running) since Sat 2024-02-07 10:58:22 UTC; 9s ago
     Main PID: 11614 (node exporter)
        Tasks: 4 (limit: 1000)
       Memory: 2.6M (peak: 2.8M)
          CPU: 11ms
         CGroup: /system.slice/node_exporter.service
             └─11614 /usr/local/bin/node_exporter

Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=time
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=cpu
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=up
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=uname
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=wstat
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=watchdog
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=xfs
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info collector=zfs
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=node_exporter.go:118 level=info config.go:113 level=info msg="Listening on" address=[::]:9100
Feb 07 10:58:22 ip-172-31-36-185 node_exporter[11614]: ts=2026-02-07T10:58:22.0992 caller=tsl config.go:116 level=info msg="TLS is disabled." http2=false address=[::]:9100
root@ip-172-31-36-185:~/prometheus-2.52.0.linux-amd64#
```

Launched Graffana in browser:

The screenshot shows the Grafana home page. On the left is a dark sidebar with navigation links: Home, Bookmarks, Starred, Dashboards, Explore, Drilldown, Alerting, Connections, and Administration. A 'Basic' section on the right provides a quick start guide. Below it are three panels: 'TUTORIAL DATA SOURCE AND DASHBOARDS' (with a 'Grafana fundamentals' sub-section), 'DATA SOURCES' (with a 'Add your first data source' link), and 'DASHBOARDS' (with a 'Create your first dashboard' link). The top bar includes a search field and various browser controls.

The screenshot shows the 'Add data source' page. The sidebar on the left has a 'Data sources' section selected. The main area displays two time series database options: 'Prometheus' (selected) and 'Graphite'. Both have small icons and brief descriptions. A search bar and a 'Cancel' button are also present.

Launched Prometheus in browser:

The screenshot shows the Prometheus query interface. At the top, there's a URL bar with a query: `?q0.expr=node_cpu_seconds_total&q0.tab=0&q0.display_mode=lines&q0.show_exemplars=0&q0.range_input=6h&q0.end_input=2026-02-0...`. Below the bar are several checkboxes: 'Use local time', 'Enable query history', 'Enable autocomplete', 'Enable highlighting', and 'Enable linter'. A search bar contains the query `node_cpu_seconds_total`. To the right of the search bar are 'Table' and 'Graph' tabs, and a 'Execute' button. The main area is a graph showing a single blue line representing CPU usage over time, starting at approximately 2.00k and rising linearly to about 8.50k over the last 6 hours. The y-axis ranges from 2.00k to 9.00k. The x-axis shows the date as 2026-02-07 14:02:30. Other controls include a zoom range selector (6h), a time picker, and a resolution selector ('Res. (s)').

The screenshot shows the Prometheus Targets page. At the top, there's a navigation bar with links for Prometheus, Alerts, Graph, Status, and Help. Below the navigation is a search bar labeled "Filter by endpoint or labels". Underneath, there are two sections: "Node Exporter (1/1 up)" and "prometheus (1/1 up)". Each section has a "show less" link. The "Node Exporter" section shows one target at `http://localhost:9100/metrics` with state "UP", instance "localhost:9100", job "Node Exporter", last scrape 11.513s ago, and a scrape duration of 11.616ms. The "prometheus" section shows one target at `http://localhost:9090/metrics` with state "UP", instance "localhost:9090", job "prometheus", last scrape 9.913s ago, and a scrape duration of 4.866ms.

Launched Node Exporter in browser:

The screenshot shows a browser window displaying the Prometheus Node Exporter metrics. The title bar says "Not secure 13.233.124.181:9100". The main content area has a large orange header with the text "Node Exporter". Below the header, it says "Prometheus Node Exporter". It includes the version information "Version: (version=1.8.1, branch=HEAD, revision=400c3979931613db930ea035f39ce7b377cd8b5b)" and a single link "Metrics".

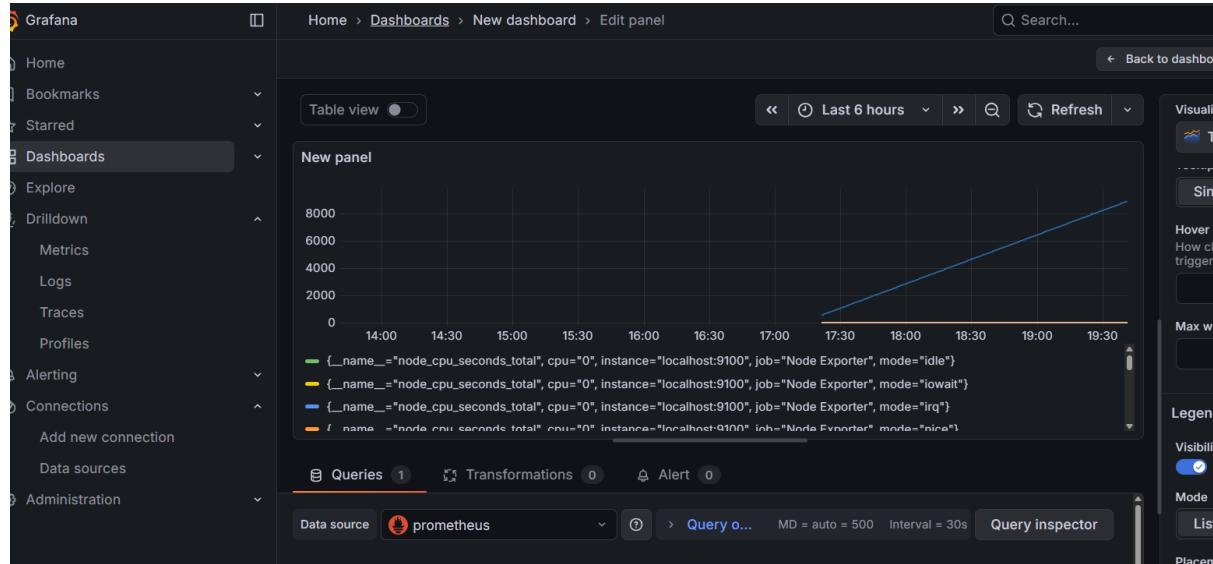
← → G Not secure 13.233.124.181:9100/metrics

Set Google Chrome as your default browser and pin it to your taskbar Set as default

```
# 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"} 0
go_gc_duration_seconds{quantile="0.5%"} 0
go_gc_duration_seconds{quantile="0.75%"} 0
go_gc_duration_seconds{quantile="1"} 0
go_gc_duration_seconds_sum 0
go_gc_duration_seconds_count 0
# HELP go_goroutines Number of goroutines that currently exist.
# TYPE go_goroutines gauge
go_goroutines 7
# HELP go_info Information about the Go environment.
# TYPE go_info gauge
go_info{version="go1.22.3"} 1
# HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
# TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 2.741552e+06
# 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 2.741552e+06
# 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 1.449874e+06
# HELP go_memstats_frees_total Total number of frees.
# TYPE go_memstats_frees_total counter
go_memstats_frees_total 1395
# 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 2.089016e+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 2.741552e+06
# HELP go_memstats_heap_allocated_bytes Number of heap bytes waiting to be used.
# TYPE go_memstats_heap_allocated_bytes gauge
go_memstats_heap_allocated_bytes 3.792896e+06
# 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 4.153344e+06
# HELP go_memstats_heap_objects Number of allocated objects.
# TYPE go_memstats_heap_objects gauge
go_memstats_heap_objects 21748
# 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 3.792896e+06
a_gcldr_memevents_total 0
b_gcldr_memevents_total 0
c_gcldr_memevents_total 0
d_gcldr_memevents_total 0
e_gcldr_memevents_total 0
f_gcldr_memevents_total 0
g_gcldr_memevents_total 0
h_gcldr_memevents_total 0
i_gcldr_memevents_total 0
j_gcldr_memevents_total 0
k_gcldr_memevents_total 0
l_gcldr_memevents_total 0
m_gcldr_memevents_total 0
n_gcldr_memevents_total 0
o_gcldr_memevents_total 0
p_gcldr_memevents_total 0
q_gcldr_memevents_total 0
r_gcldr_memevents_total 0
s_gcldr_memevents_total 0
t_gcldr_memevents_total 0
u_gcldr_memevents_total 0
v_gcldr_memevents_total 0
w_gcldr_memevents_total 0
x_gcldr_memevents_total 0
y_gcldr_memevents_total 0
z_gcldr_memevents_total 0

```

Manual Dashboard:



Created Metrix Dashboard:

