1.Prometheus Installed and Running

```
● prometheus.service - Prometheus
     Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
     Active: active (running) since Thu 2024-05-30 12:06:16 IST; 1h 33min ago
   Main PID: 1261 (prometheus)
      Tasks: 12 (limit: 19106)
     Memory: 99.7M
        CPU: 29.392s
     CGroup: /system.slice/prometheus.service
             └─1261 /usr/local/bin/prometheus --config.file /etc/prometheus/prometheus.yml --storage.tsdb.path >

May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.504Z caller=compact.go:493 component>
May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.514Z caller=head.go:824 component=ts>
May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.596Z caller=compact.go:493 component>
May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.604Z caller=head.go:824 component=ts>
May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.737Z caller=compact.go:493 component>
May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.763Z caller=head.go:824 component=ts>
May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.824Z caller=checkpoint.go:95 compone>
May 30 12:06:49 ubuntu prometheus[1261]: level=info ts=2024-05-30T06:36:49.871Z caller=head.go:908 component=ts>
May 30 12:30:06 ubuntu prometheus[1261]: level=info ts=2024-05-30T07:00:06.734Z caller=compact.go:493 component>
May 30 12:30:06 ubuntu prometheus[1261]: level=info ts=2024-05-30T07:00:06.738Z caller=head.go:824 component=ts>
lines 1-20/20 (END)
```

2.Opened Port number 9090 for Prometheus

```
bala@ubuntu:~/Prometheus_Grafana$ sudo ufw allow 9090/tcp
Skipping adding existing rule
Skipping adding existing rule (v6)
bala@ubuntu:~/Prometheus_Grafana$
```

4.Node Exporter installed and Running

```
● node-exporter.service - Prometheus Node Exporter Service
     Loaded: loaded (/etc/systemd/system/node-exporter.service; enabled; preset: enabled)
     Active: active (running) since Thu 2024-05-30 12:06:15 IST; 1h 39min ago
   Main PID: 1205 (node_exporter)
      Tasks: 11 (limit: 19106)
     Memory: 24.8M
        CPU: 1min 25.001s
     CGroup: /system.slice/node-exporter.service
             └─1205 /usr/local/bin/node_exporter

May 30 13:43:21 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:13:21.756Z caller=collector.go:161 msg>
May 30 13:43:36 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:13:36.672Z caller=collector.go:161 msg>
May 30 13:43:51 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:13:51.685Z caller=collector.go:161 msg>
May 30 13:44:06 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:14:06.672Z caller=collector.go:161 msg>
May 30 13:44:21 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:14:21.673Z caller=collector.go:161 msg>
May 30 13:44:36 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:14:36.673Z caller=collector.go:161 msg>
May 30 13:44:51 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:14:51.690Z caller=collector.go:161 msg>
May 30 13:45:06 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:15:06.673Z caller=collector.go:161 msg>
May 30 13:45:21 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:15:21.670Z caller=collector.go:161 msg>
May 30 13:45:36 ubuntu node_exporter[1205]: level=error ts=2024-05-30T08:15:36.684Z caller=collector.go:161 msg>
lines 1-20/20 (END)
```

5. Opened Port number 9100 for Node Exporter

```
bala@ubuntu:~/Prometheus_Grafana$ sudo ufw allow 9100/tcp
Skipping adding existing rule
Skipping adding existing rule (v6)
bala@ubuntu:~/Prometheus_Grafana$
```

6. Node Exporter Running in Port number 9100

localhost:9100
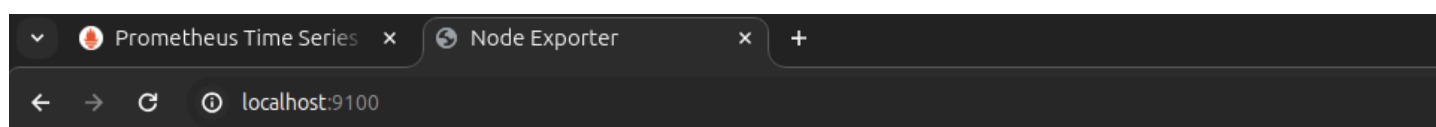
Node Exporter

Metrics

7.Node exporter IP configured in Prometheus for Target

```
root@ubuntu:~# cd /etc/prometheus/
root@ubuntu:/etc/prometheus# nano prometheus.yml
root@ubuntu:/etc/prometheus# cat prometheus.yml
global:
  scrape_interval: 15s
  external_labels:
    monitor: 'prometheus'

scrape_configs:
  - job_name: 'node_exporter'
    static_configs:
      - targets: ['localhost:9100']
root@ubuntu:/etc/prometheus#
```

8.Prometheus restarted for Target configuration

```
bala@ubuntu:~$ sudo systemctl restart prometheus
bala@ubuntu:~$ sudo systemctl status prometheus
● prometheus.service - Prometheus
     Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
     Active: active (running) since Thu 2024-05-30 13:55:23 IST; 14s ago
   Main PID: 13026 (prometheus)
      Tasks: 12 (limit: 19106)
     Memory: 51.3M
        CPU: 7.578s
     CGroup: /system.slice/prometheus.service
             └─13026 /usr/local/bin/prometheus --config.file /etc/prometheus/prometheus.yml --storage.tsdb.path>

May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.841Z caller=compact.go:493 componen>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.844Z caller=head.go:824 component=t>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.879Z caller=compact.go:493 componen>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.883Z caller=head.go:824 component=t>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.905Z caller=compact.go:493 componen>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.908Z caller=head.go:824 component=t>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.928Z caller=compact.go:493 componen>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.930Z caller=head.go:824 component=t>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.974Z caller=compact.go:493 componen>
May 30 13:55:37 ubuntu prometheus[13026]: level=info ts=2024-05-30T08:25:37.979Z caller=head.go:824 component=t>
lines 1-20/20 (END)
```

9.Now our node exporter is added in Prometheus Dashboard

Prometheus Time Series   Node Exporter   +

localhost:9090/targets

Prometheus Alerts Graph Status ▾ Help Classic UI

Targets

All Unhealthy

node_exporter (1/1 up) show less

| Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://localhost:9100/metrics	UP	instance="localhost:9100" job="node_exporter"	4.301s	54.671ms	

10.Installed Grafana and Running

```
● grafana-server.service - Grafana instance
     Loaded: loaded (/lib/systemd/system/grafana-server.service; enabled; preset: enabled)
     Active: active (running) since Thu 2024-05-30 15:01:18 IST; 876ms ago
       Docs: http://docs.grafana.org
   Main PID: 13292 (grafana-server)
      Tasks: 11 (limit: 19106)
     Memory: 20.4M
        CPU: 917ms
     CGroup: /system.slice/grafana-server.service
             └─13292 /usr/sbin/grafana-server --config=/etc/grafana/grafana.ini --pidfile=/var/run/grafana/graf>

May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Path Logs" logger=settin>
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Path Plugins" logger=set>
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Path Provisioning" logge>
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="App mode production" log>
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Writing PID file" logger>
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Connecting to DB" logger>
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Starting DB migrations" >
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Starting plugin search" >
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="Registering plugin" logg>
May 30 15:01:18 ubuntu grafana-server[13292]: t=2024-05-30T15:01:18+0530 lvl=info msg="HTTP Server Listen" logg>
lines 1-21/21 (END)
```
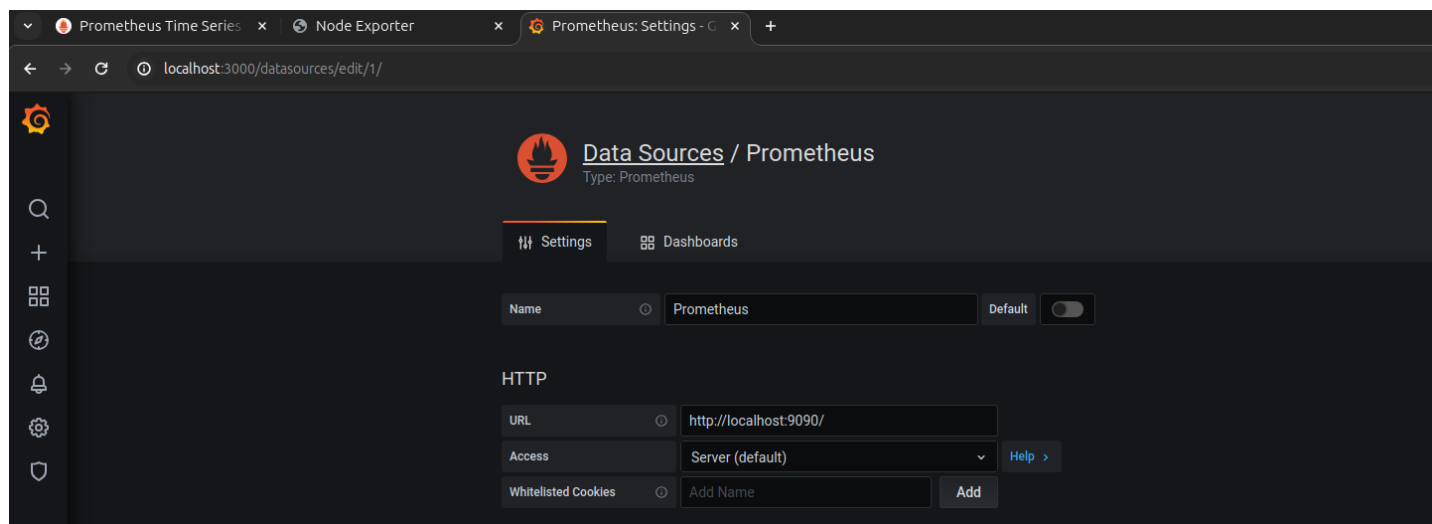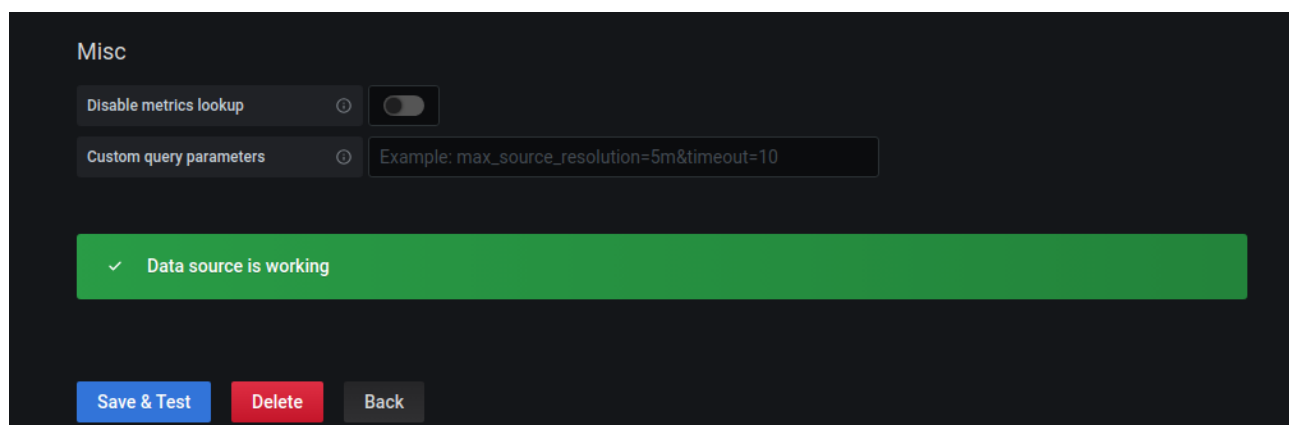
11. Opened Port number 3000 for Grafana
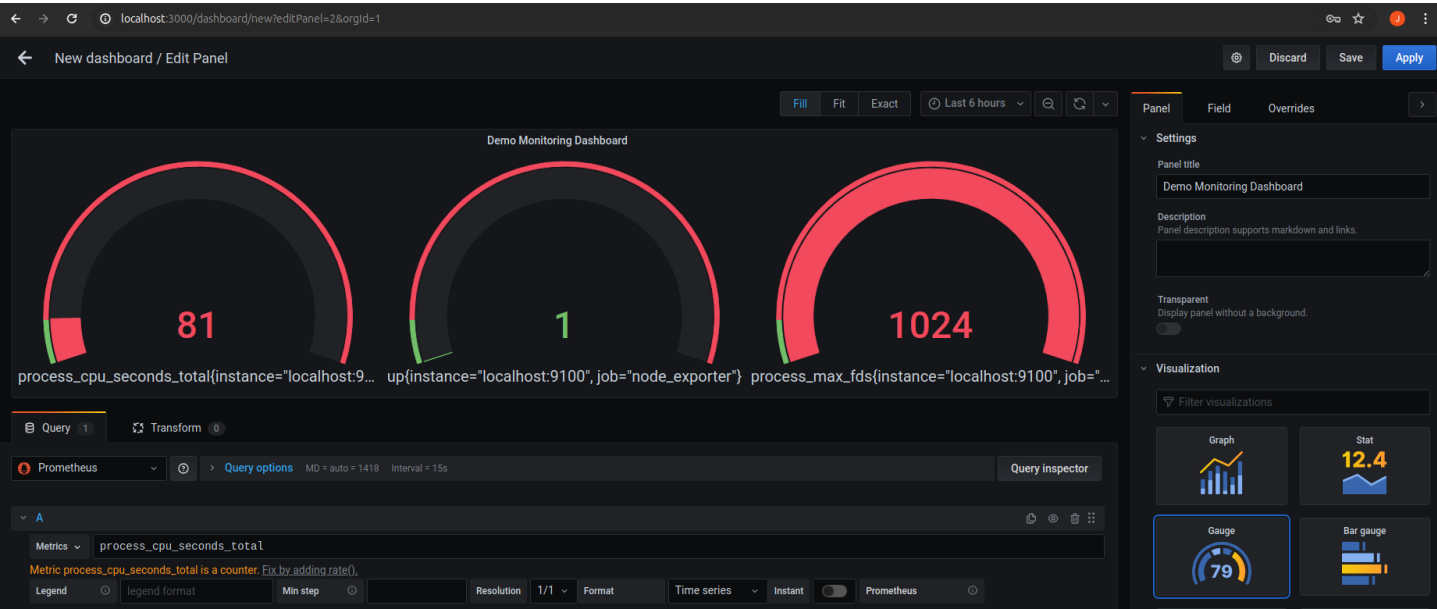

12. Grafana Running in Port Number 3000
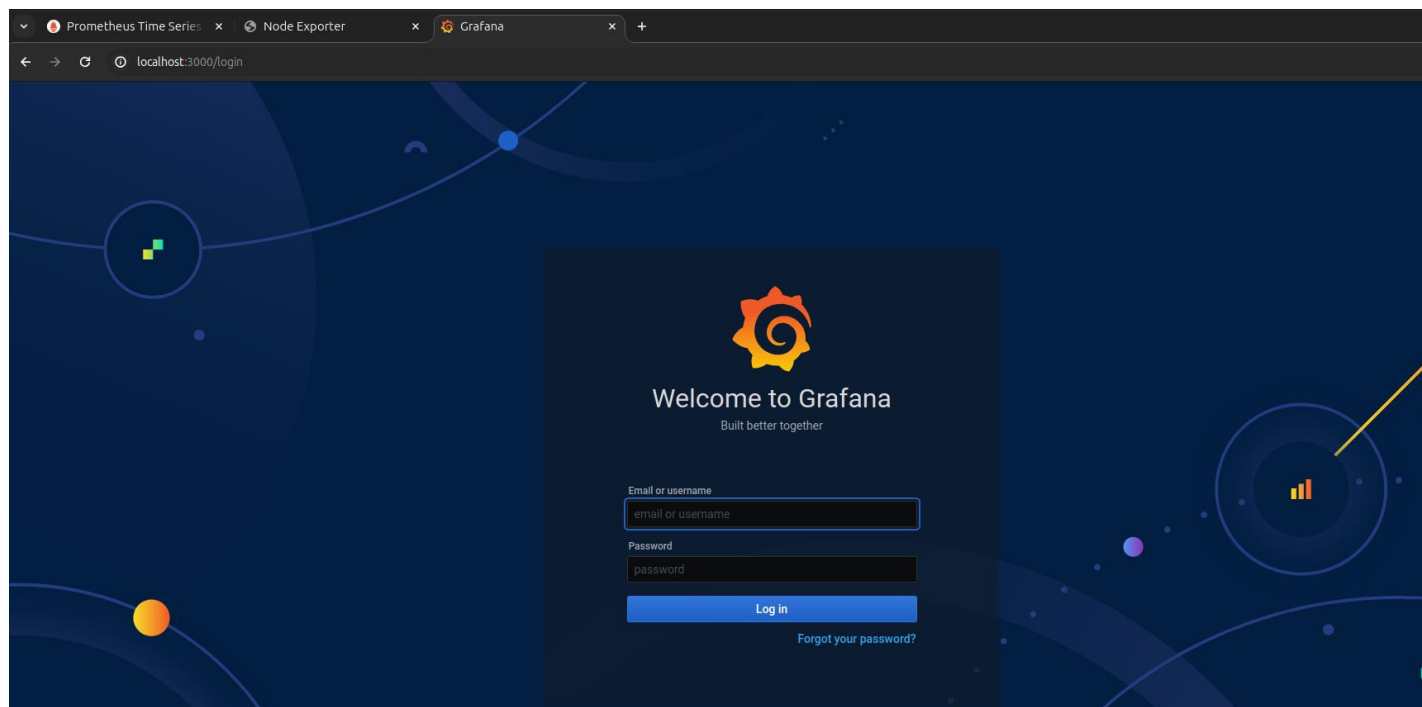
13.Coneected Prometheus Data Source to Grafana

14. Data Source added and tested. Linked data source is working.

14.Custom Dash Board Creation

15. Created New Custom Dash Board