3. **Install grafana server on same server as prometheus**

- **Add prometheus data source to grafana, should be connected through basic auth**
- **Screenshot of working data source config**
- **Import & apply dashboard for node_exporter**
- **Screenshot of dashboard of nodes with live metrics shown.**

Installing latest OSS grafana on the same host where Prometheus service is installed(**192.168.1.147**)

sudo apt-get install -y apt-transport-https

sudo apt-get install -y software-properties-common wget

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

```
bibek@prometheus:/etc/prometheus$ wget -q -O - https://packages.grafana.com/gpg.
key | sudo apt-key add -
OK
bibek@prometheus:/etc/prometheus$ echo "deb https://packages.grafana.com/oss/deb
 stable main" | sudo tee -a /etc/apt/sources.list.d/grafana.list
deb https://packages.grafana.com/oss/deb stable main
bibek@prometheus:/etc/prometheus$ sudo apt-get update
Hit:1 http://np.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Hit:3 https://artifacts.elastic.co/packages/7.x/apt stable InRelease
Get:4 http://np.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:5 https://download.docker.com/linux/ubuntu focal InRelease [57.7 kB]
Get:6 http://np.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:7 https://packages.grafana.com/oss/deb stable InRelease [12.1 kB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Metadat
```

sudo apt-get install grafana

```
(Reading database ... 179896 files and directories currently installed.)
Preparing to unpack .../grafana_8.3.0_amd64.deb ...
Unpacking grafana (8.3.0) ...
Setting up grafana (8.3.0) ...
Adding system user `grafana' (UID 135) ...
Adding new user `grafana' (UID 135) with group `grafana' ...
Not creating home directory `/usr/share/grafana'.
### NOT starting on installation, please execute the following statements to
figure grafana to start automatically using systemd
 sudo /bin/systemctl daemon-reload
 sudo /bin/systemctl enable grafana-server
### You can start grafana-server by executing
 sudo /bin/systemctl start grafana-server
Processing triggers for systemd (245.4-4ubuntu3.13) ...
```

Starting Grafana service

sudo systemctl start grafana-server.service

sudo systemctl status grafana-server.service

```
bibek@prometheus:/etc/apt/sources.list.d$ sudo systemctl start grafana-server.se
rvice
bibek@prometheus:/etc/apt/sources.list.d$ sudo systemctl status grafana-server.s
ervice
● grafana-server.service - Grafana instance
     Loaded: loaded (/lib/systemd/system/grafana-server.service; disabled; vend>
     Active: active (running) since Fri 2021-12-03 21:58:03 +0545; 2s ago
       Docs: http://docs.grafana.org
   Main PID: 20811 (grafana-server)
      Tasks: 5 (limit: 2299)
     Memory: 42.1M
     CGroup: /system.slice/grafana-server.service
             └─20811 /usr/sbin/grafana-server --config=/etc/grafana/grafana.ini>

दिस  ३ब्र  03  21:58:06     prometheus grafana-server[20811]: t=2021-12-03T21:58:06+0545>
```

Grafana is installed and running

Configuring grafana in prometheus job

sudo vi /etc/prometheus/prometheus.yml

```
- job_name: 'grafana'
  scrape_interval: 5s
  static_configs:
    - targets:
      - 192.168.1.147:3000
  basic_auth:
    username: admin
    password: 123456
```

Save and exit

Restarting the prometheus service

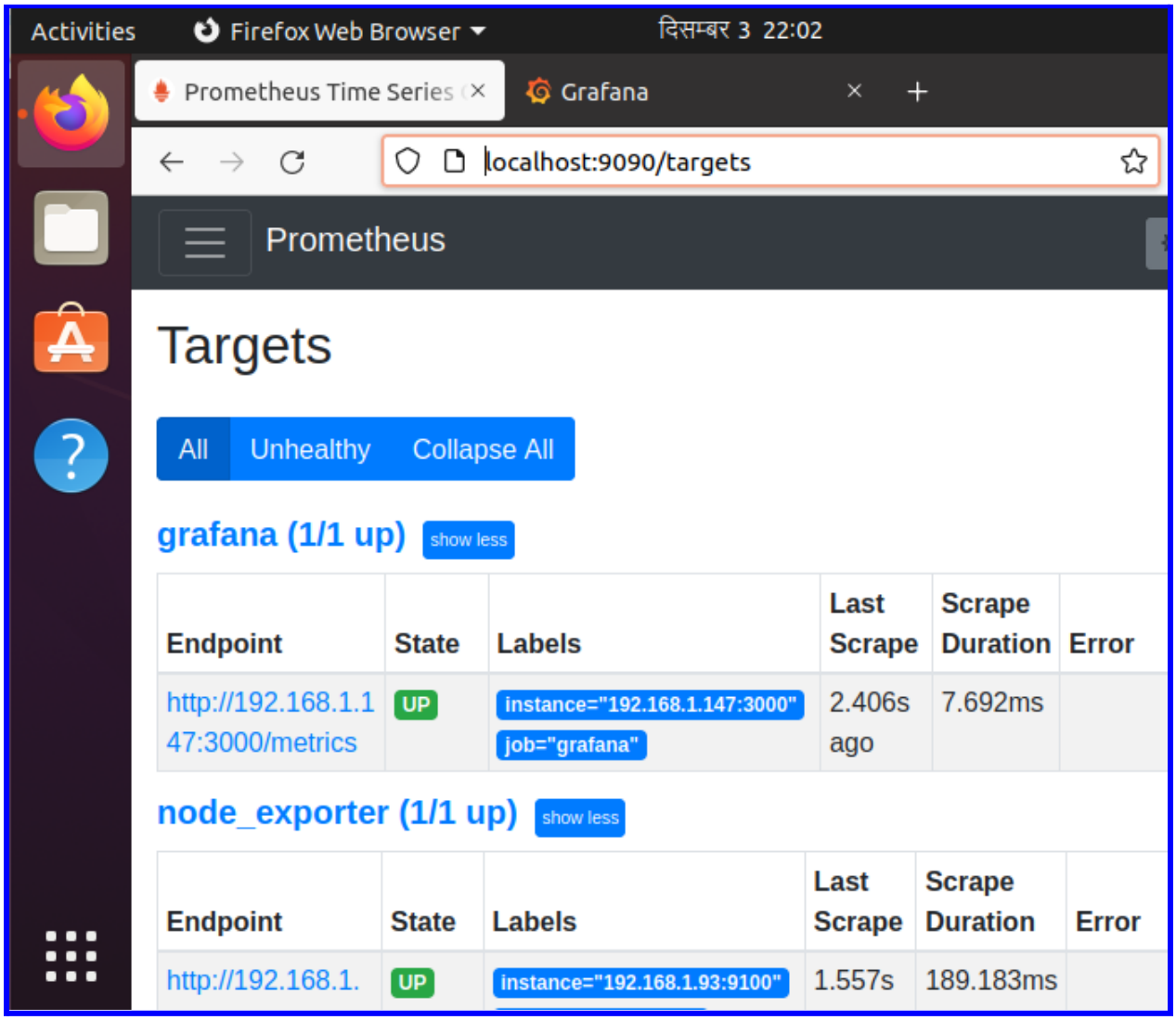
sudo systemctl restart prometheus.service

```
bibek@prometheus:/etc/prometheus$ sudo systemctl restart prometheus.service
bibek@prometheus:/etc/prometheus$ sudo systemctl status prometheus.service
● prometheus.service - Prometheus
     Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; vendor pr>
     Active: active (running) since Fri 2021-12-03 22:00:46 +0545; 8s ago
   Main PID: 20909 (prometheus)
      Tasks: 7 (limit: 2299)
     Memory: 62.1M
     CGroup: /system.slice/prometheus.service
             └─20909 /usr/local/bin/prometheus --config.file /etc/prometheus/pr>

दिस  ३ब्र  03  22:00:52     prometheus prometheus[20909]: ts=2021-12-03T16:15:52.999Z ca>
दिस  ३ब्र  03  22:00:53     prometheus prometheus[20909]: ts=2021-12-03T16:15:53.087Z ca>
```

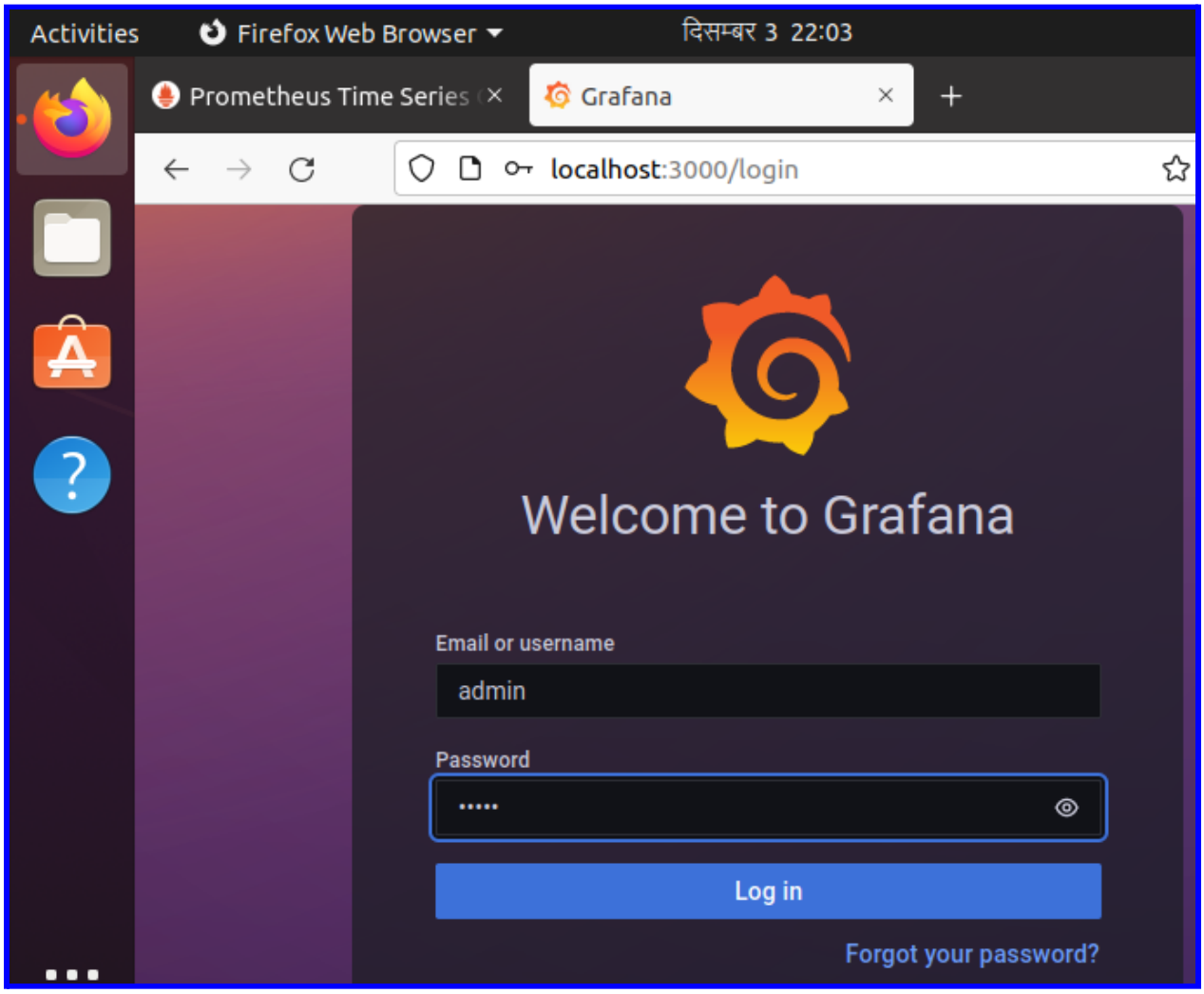
Prometheus service is running

Target of Prometheus which shows grafana is in UP state

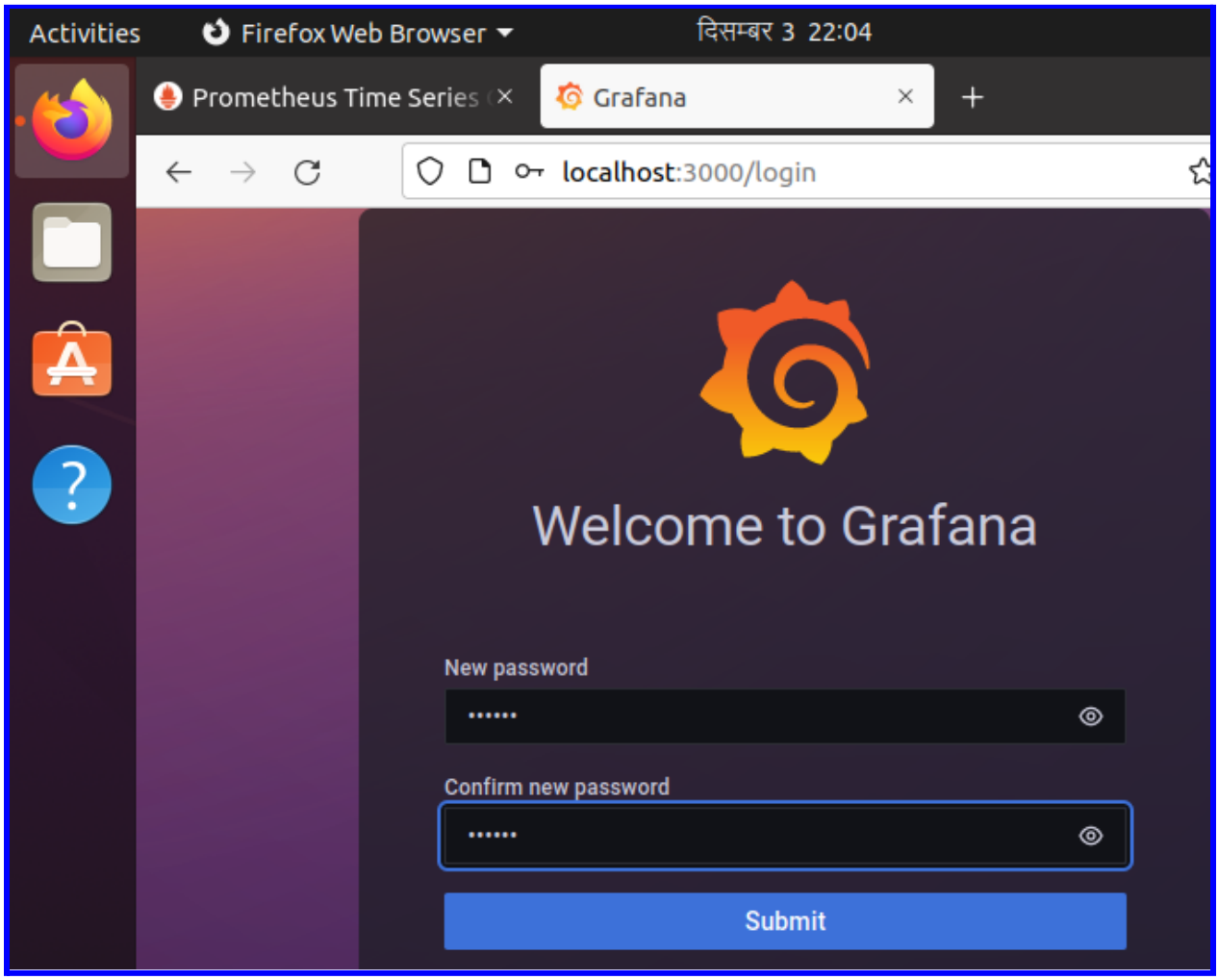


Opening Grafana at port 3000

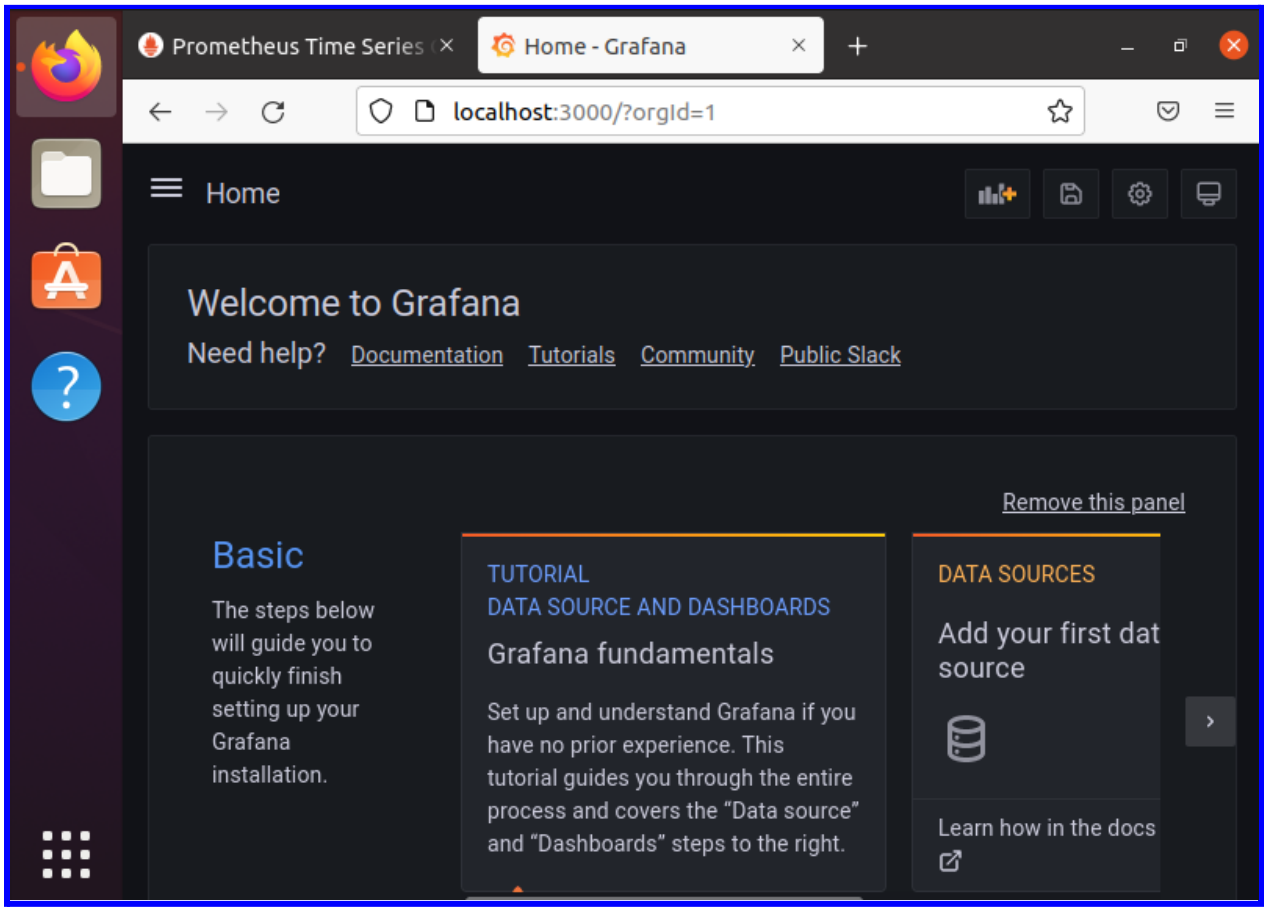
Default username password is **admin**



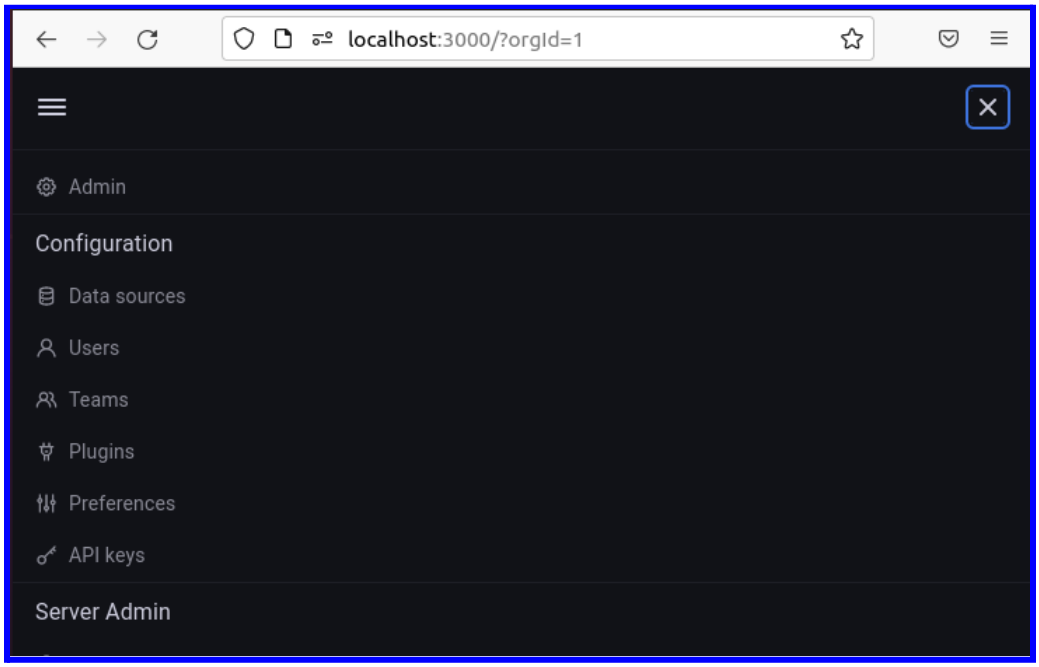
Changing default password



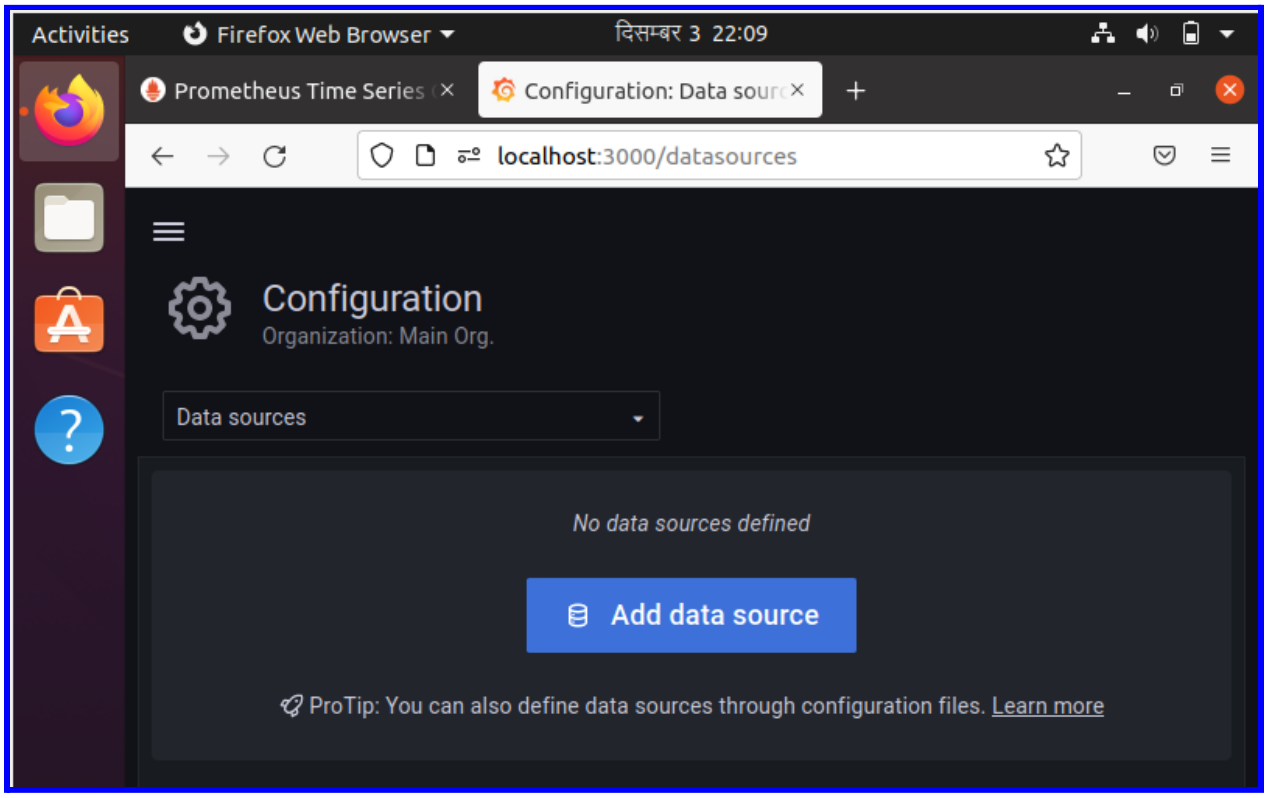
Default Welcome page of Grafana



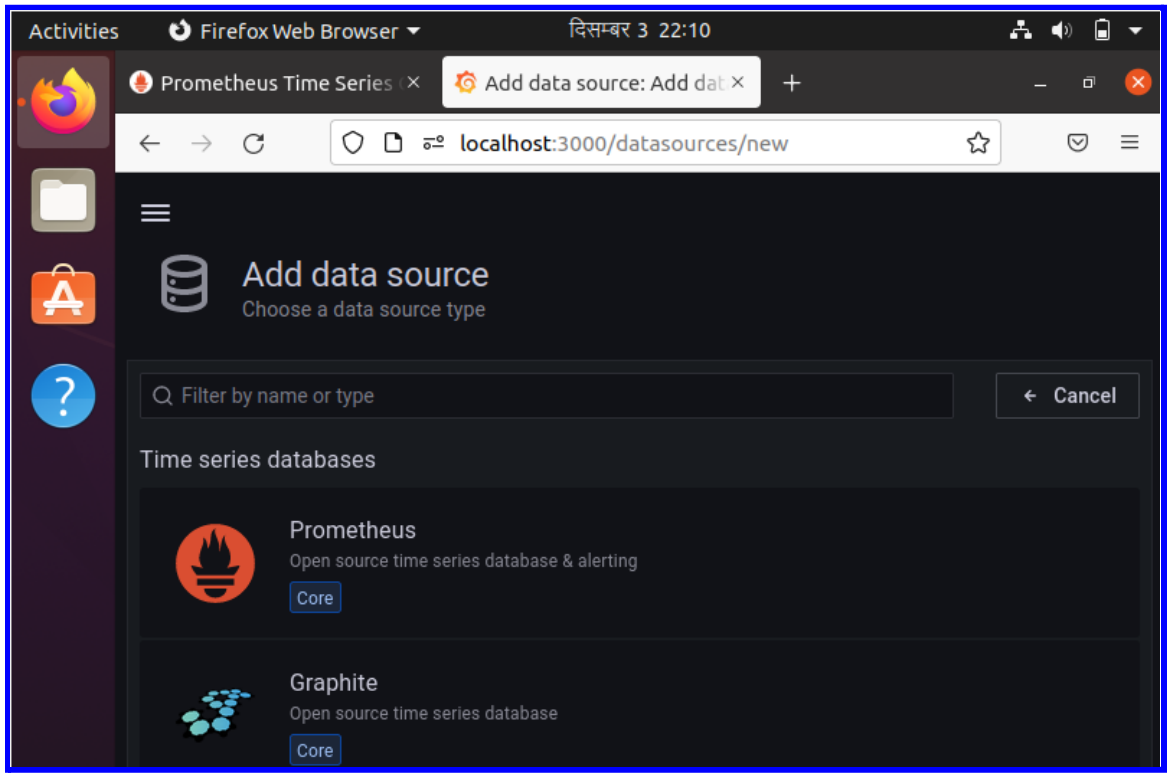
Adding Datasource Prometheus to Grafana (*configuration >> Datasources*)



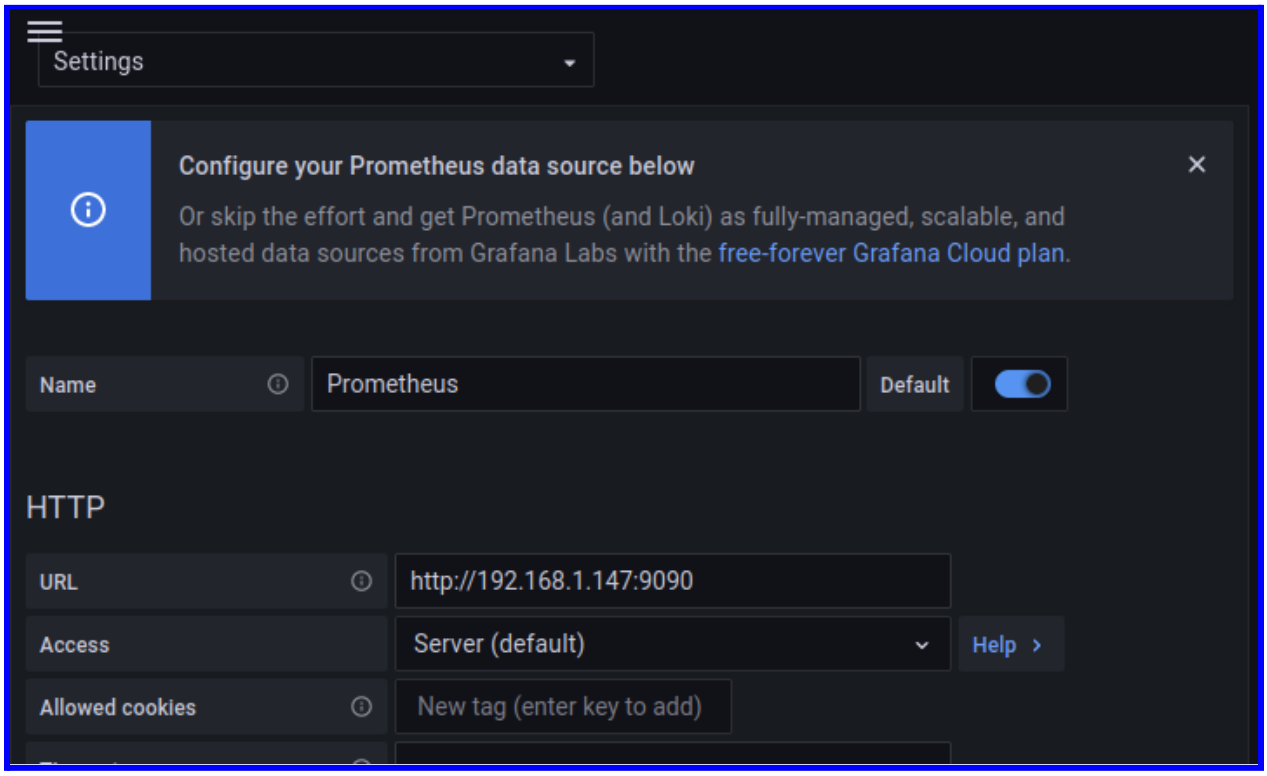
Add Data Source



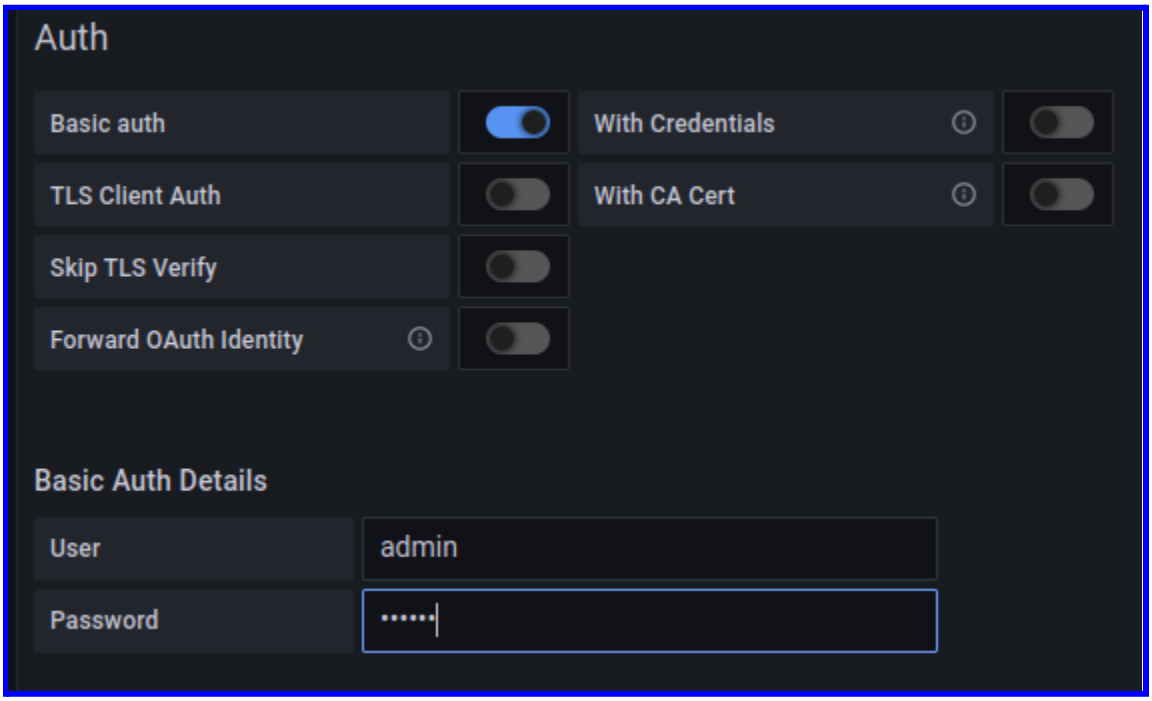
Selecting Prometheus as Data Source



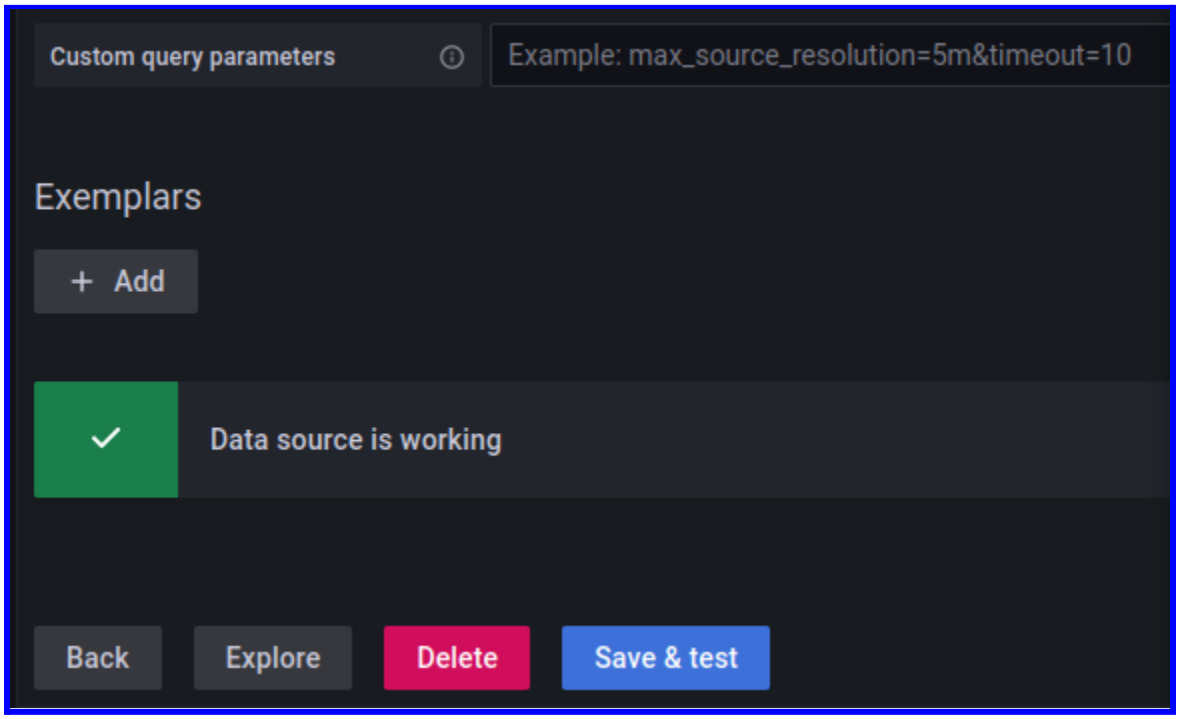
Giving the URL of Prometheus <IP:Port>



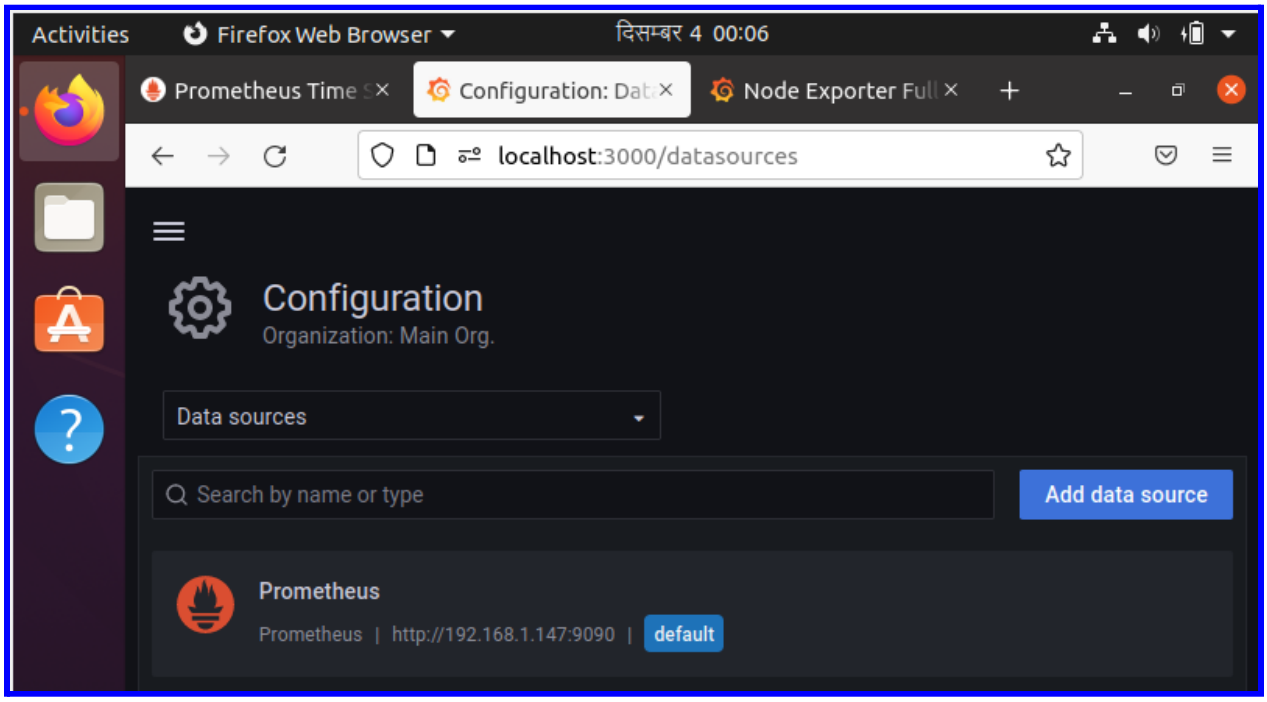
Enabling Basic Auth and giving user name and Password



Save & Test

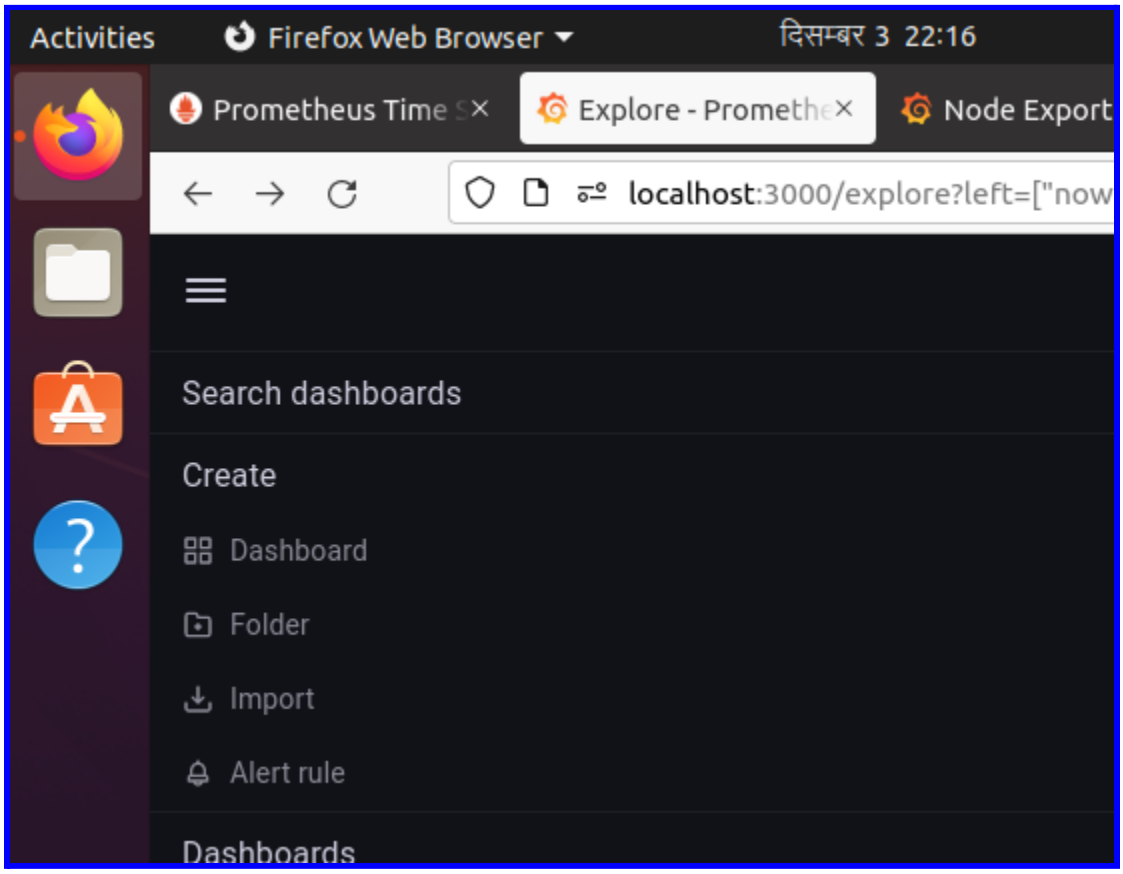


Data Source is working…

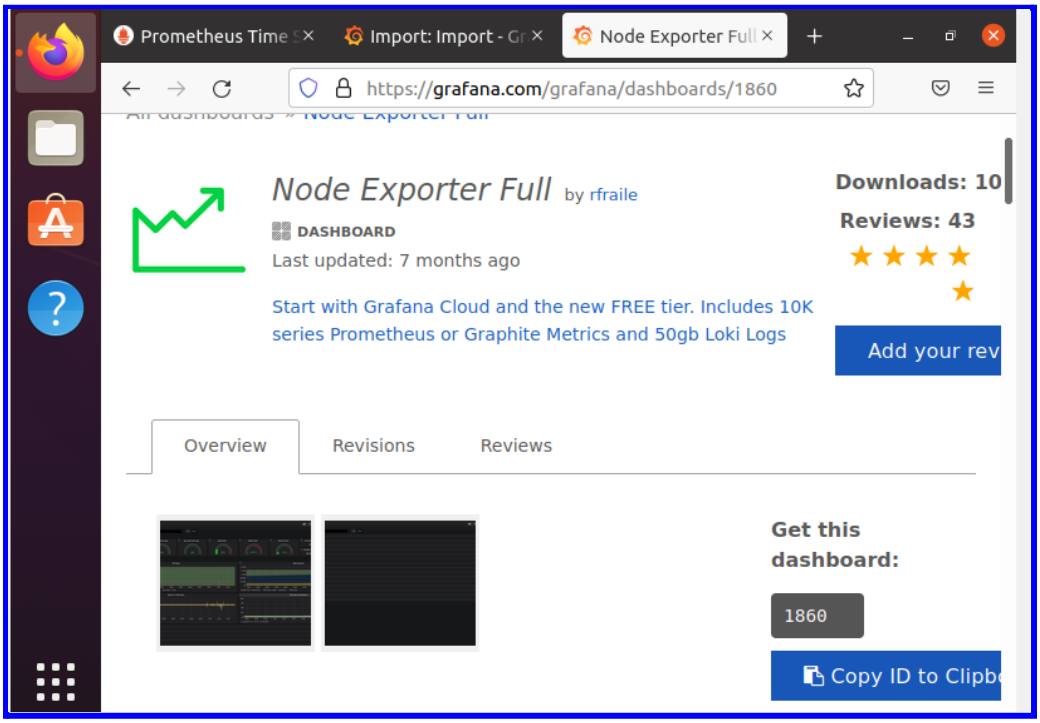


We can see the Prometheus configured as Data Source for grafana

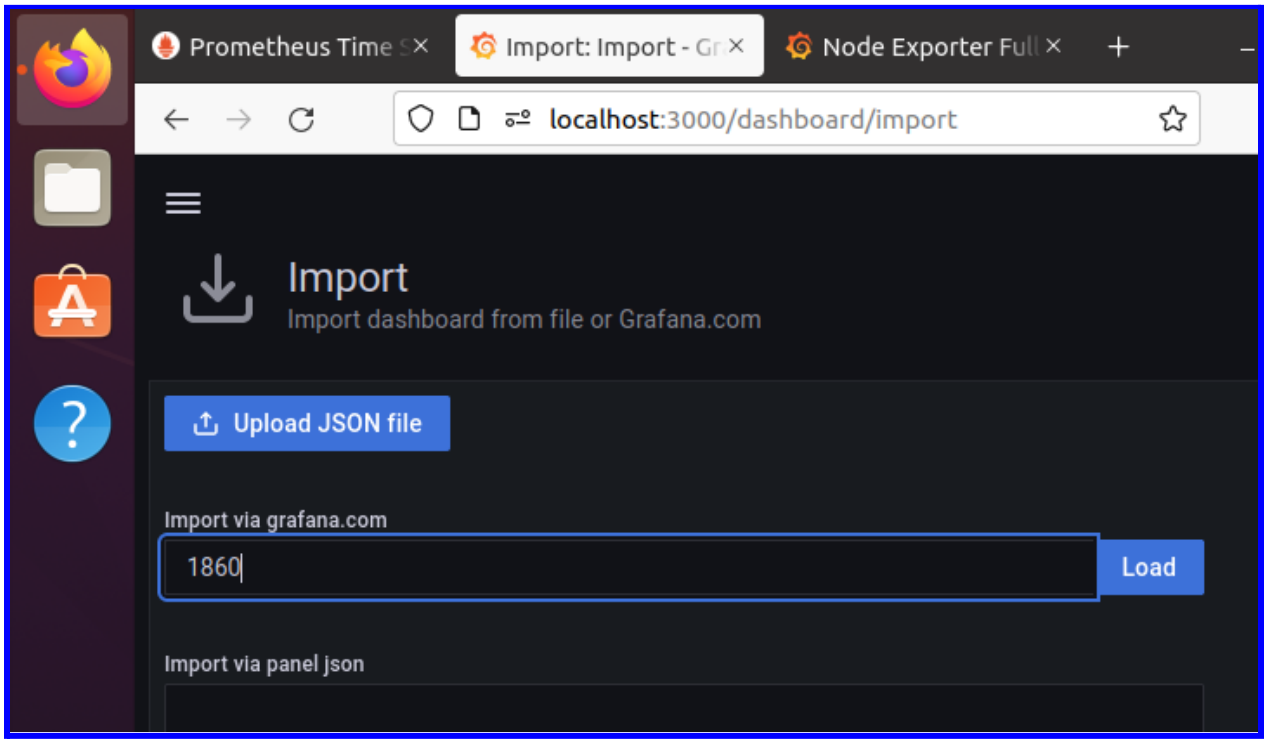
Importing Dashboard for Node-Exporter (**Create >> Import**)



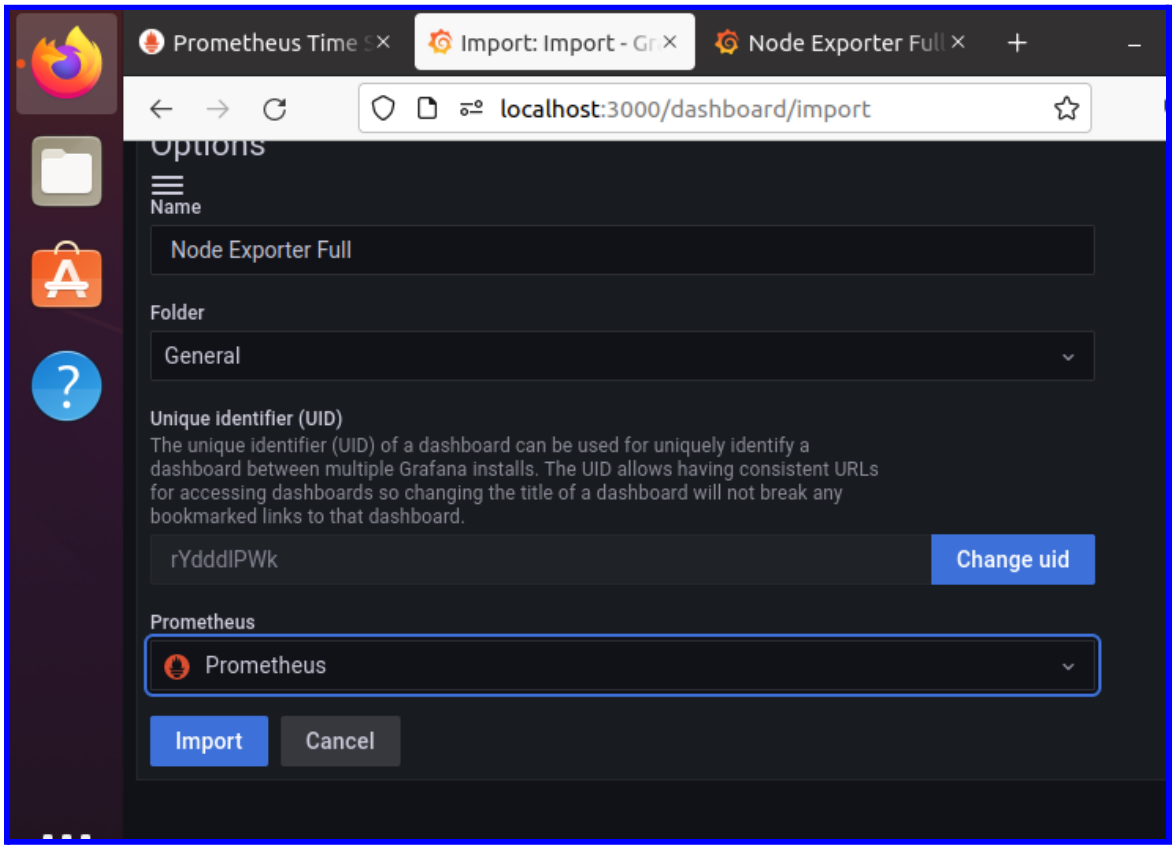
Importing Node-Exporter full (**using its ID 1860**)



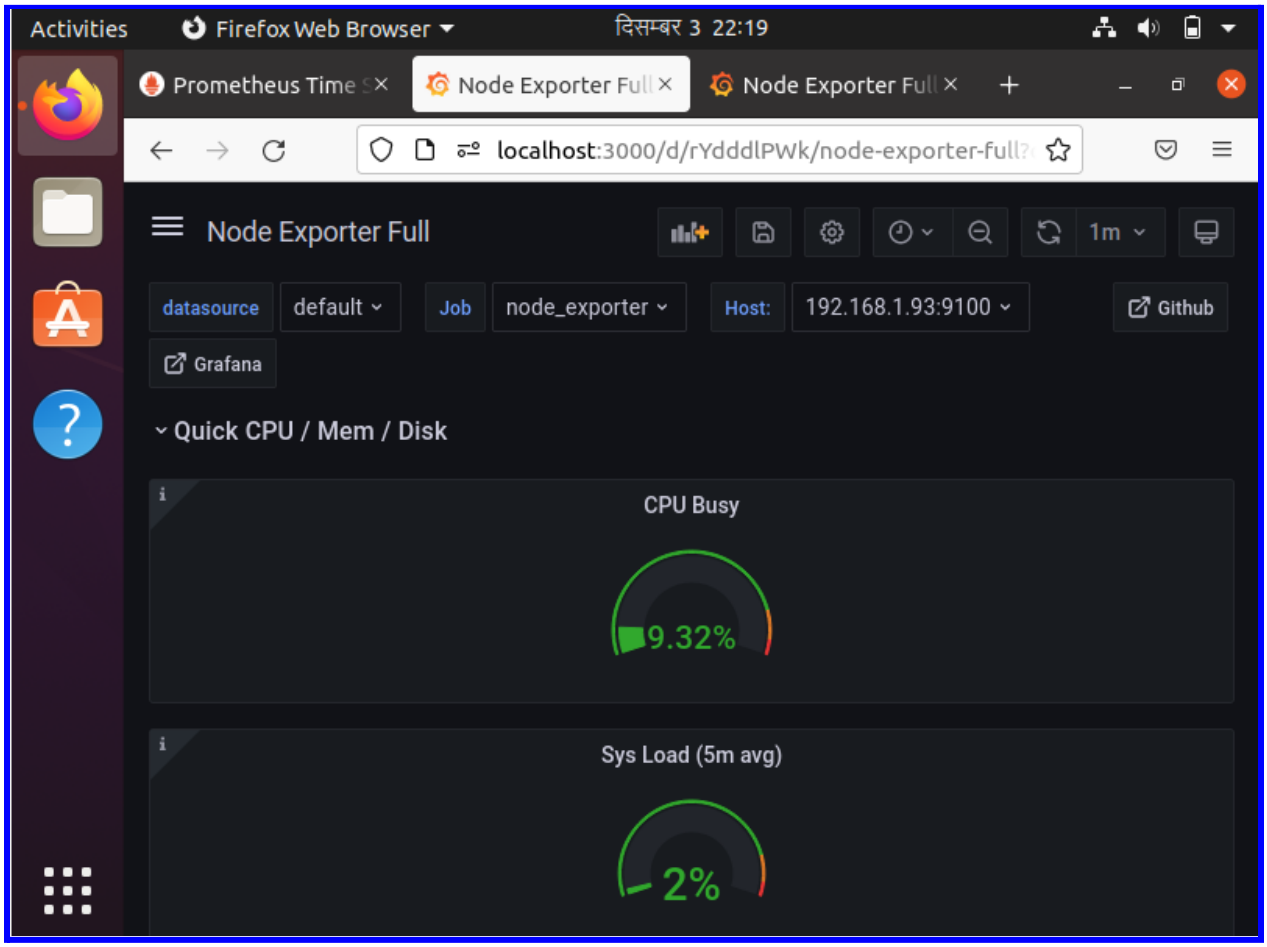
Loading the ID 1860



Importing Node-Exporter Full (**Default folder - General, Default UUID**)

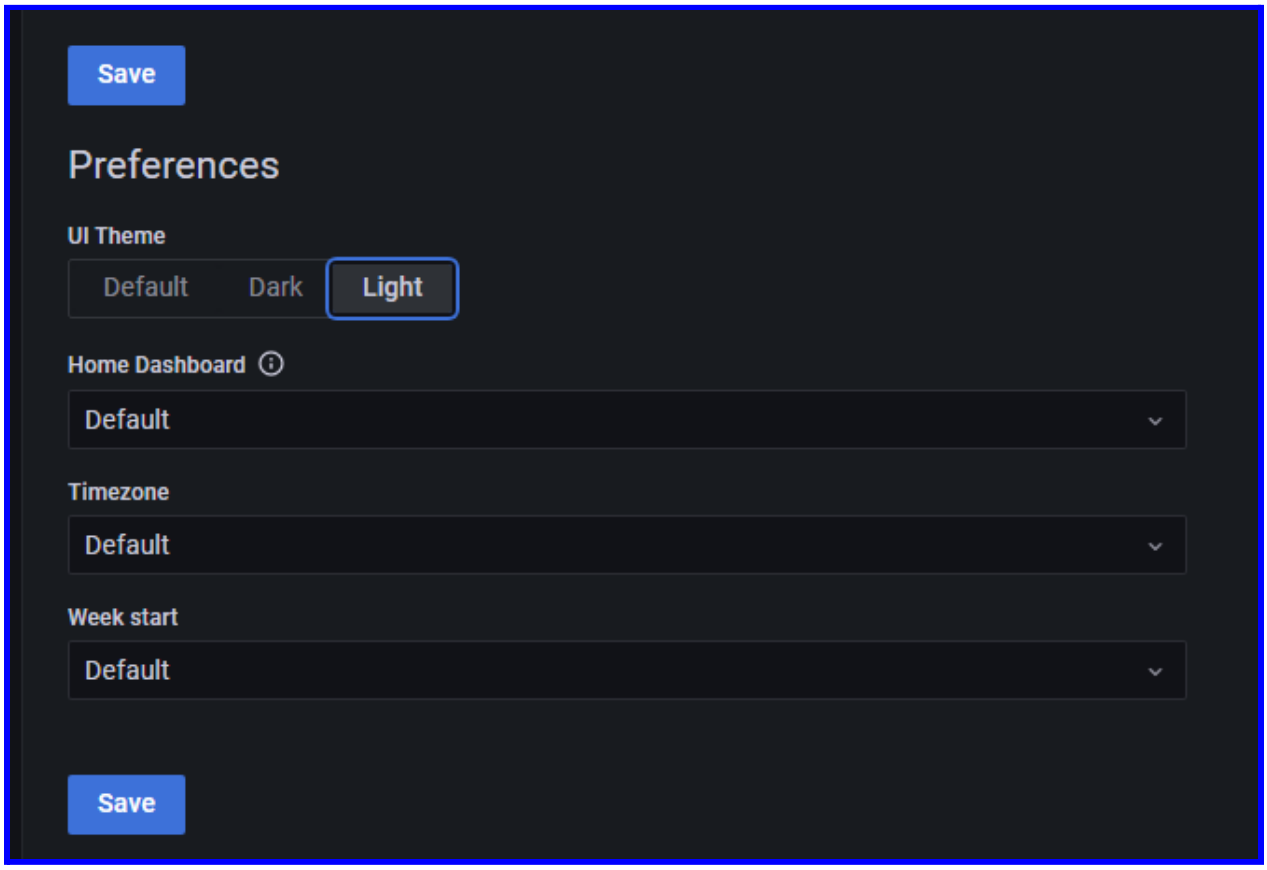


We can see the Metrics of Node Exporter Host (**192.168.1.93**)

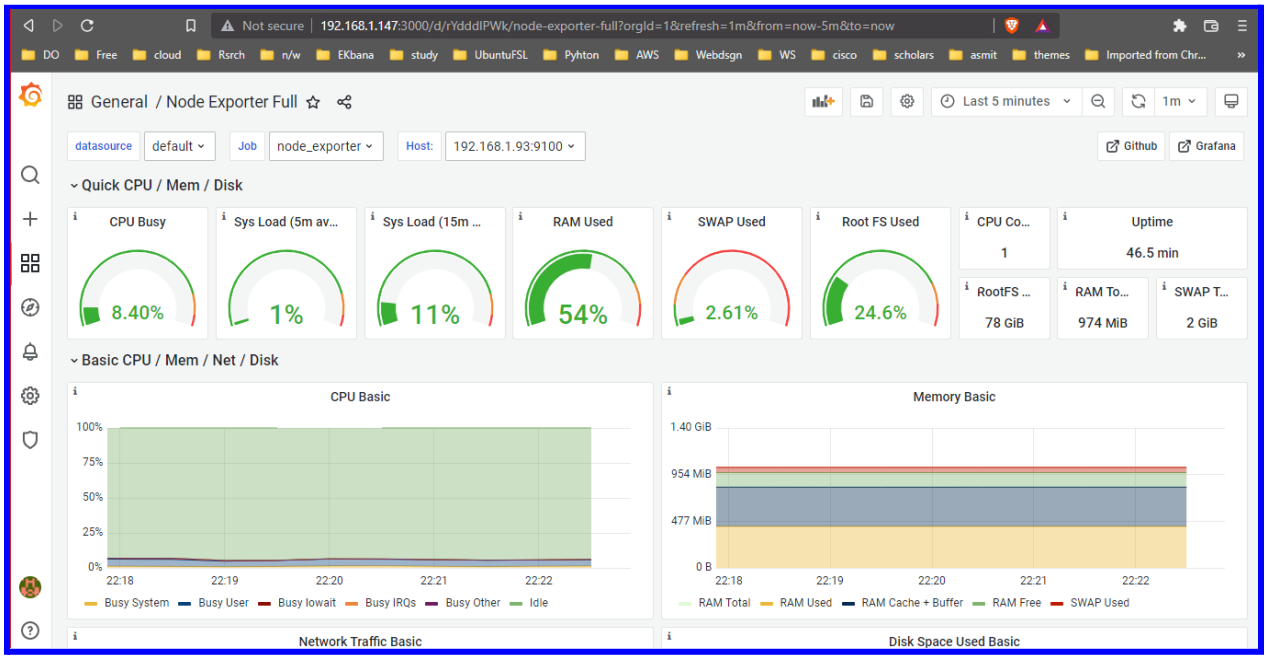


Metrics opened in Full screen on Windows host Via Host IP

Changing the theme colour to Light (preferences)



Screenshots of Metrics we got of the Node-Exporter Host (192.168.1.93)



Screenshots