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.

Answer:

To install the grafana server, first, we need to install apt-transport-https package as follows;

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

```
aashish@Zagent: ~
                                                  aashish@Zagent: ~
aashish@Zagent:~$ sudo apt-get install -y apt-transport-https
[sudo] password for aashish:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  apt-transport-https
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 4,680 B of archives.
After this operation, 162 kB of additional disk space will be used.
Get:1 http://np.archive.ubuntu.com/ubuntu focal-updates/universe amd64 apt-trans
port-https all 2.0.6 [4,680 B]
Fetched 4,680 B in 1s (4,644 B/s)
Selecting previously unselected package apt-transport-https.
(Reading database ... 186961 files and directories currently installed.)
Preparing to unpack .../apt-transport-https_2.0.6_all.deb ...
Unpacking apt-transport-https (2.0.6) ...
Setting up apt-transport-https (2.0.6) ...
```

Next, we install software-properties-common package as follows;

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

```
aashish@Zagent: ~ × aashish@Zagent: ~ × ▼

aashish@Zagent: ~ × sudo apt-get install -y software-properties-common wget

Reading package lists... Done

Building dependency tree

Reading state information... Done

software-properties-common is already the newest version (0.99.9.8).

software-properties-common set to manually installed.

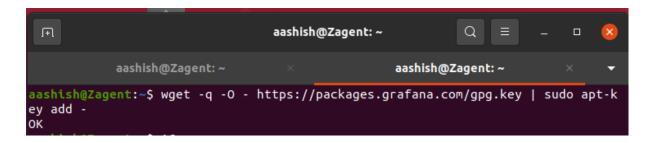
wget is already the newest version (1.20.3-1ubuntu2).

wget set to manually installed.

0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

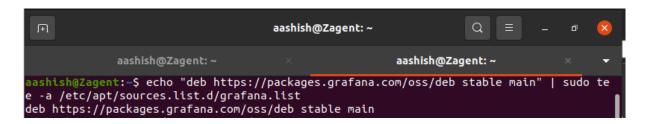
Next, we install the public signing key as follows;

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



Next, we add the grafana repositories to the custom APT repositories as follows;

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

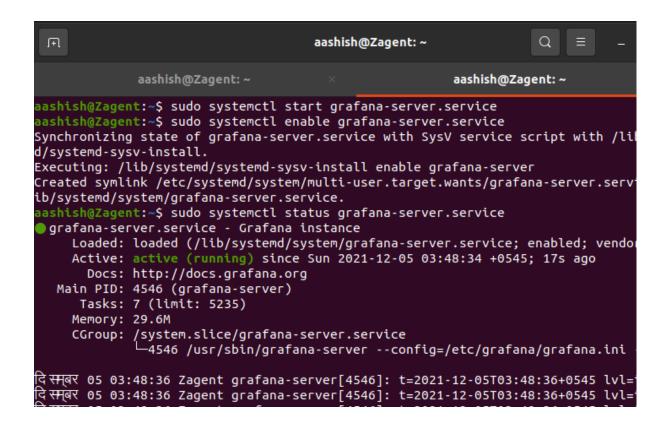


Next, we install **grafana** as follows;

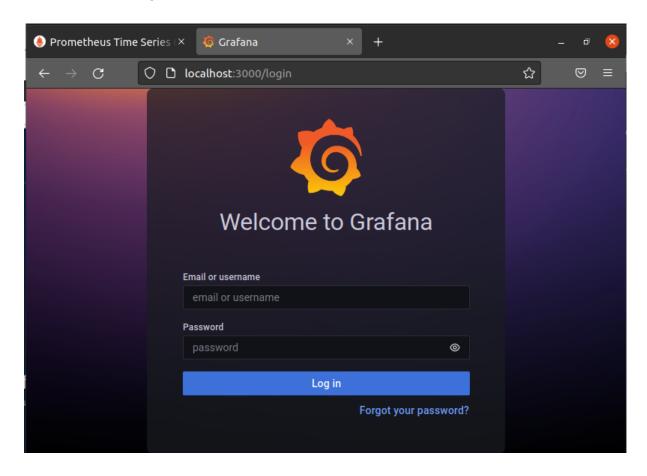
```
F
                                                                        Q
                                        aashish@Zagent: ~
              aashish@Zagent: ~
                                                            aashish@Zagent: ~
aashish@Zagent:~$ sudo apt-get install grafana
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
 grafana
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 73.1 MB of archives.
After this operation, 247 MB of additional disk space will be used.
Get:1 https://packages.grafana.com/oss/deb stable/main amd64 grafana amd64 8.3.0 [73.1
MB]
Fetched 73.1 MB in 33s (2,226 kB/s)
Selecting previously unselected package grafana.
(Reading database ... 186965 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 130) ...
Adding new user `grafana' (UID 130) with group `grafana' ...
Not creating home directory `/usr/share/grafana'
### NOT starting on installation, please execute the following statements to configure 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) ...
```

Then, we start, enable and check the status of grafana server as follows;

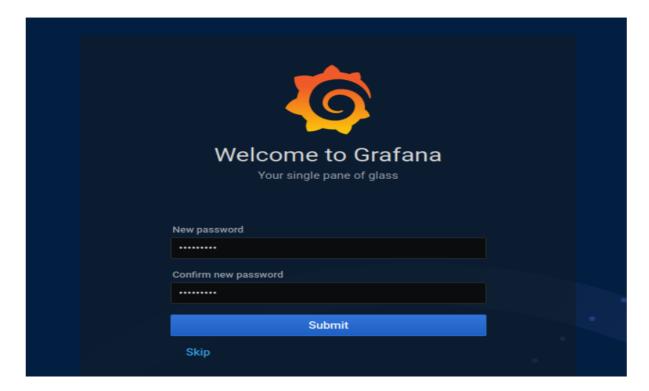
- sudo systemctl start grafana-server.service
- sudo systemctl enable grafana-server.service
- sudo systemctl status grafana-server.service



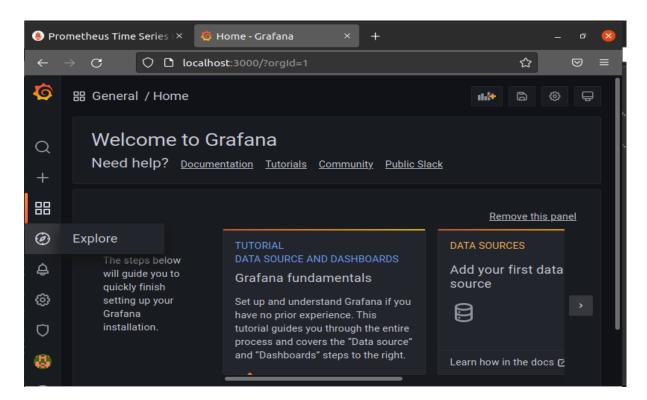
Then, we open the **grafana** via web browser as follows;



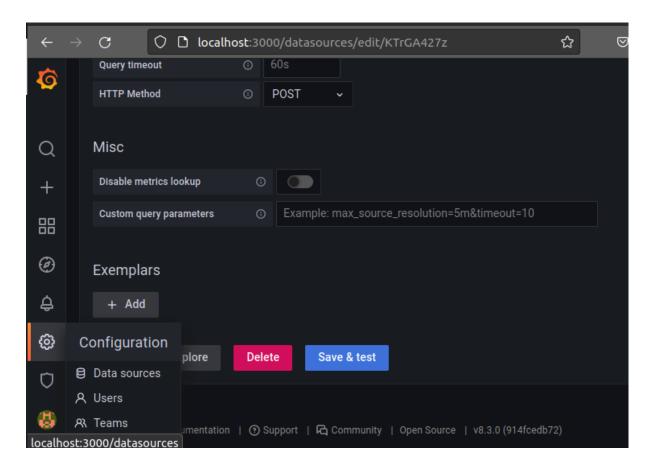
We use default login credentials i.e. username=admin and password=admin. Then, we need to set a new password after logging in using the default credentials.



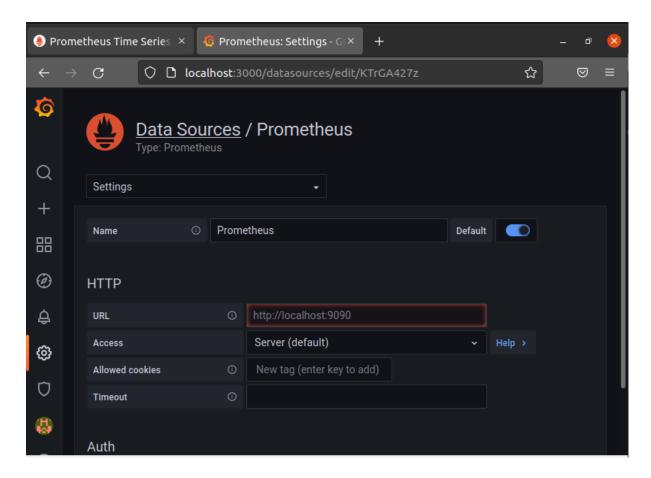
Grafana dashboard accessed successfully.



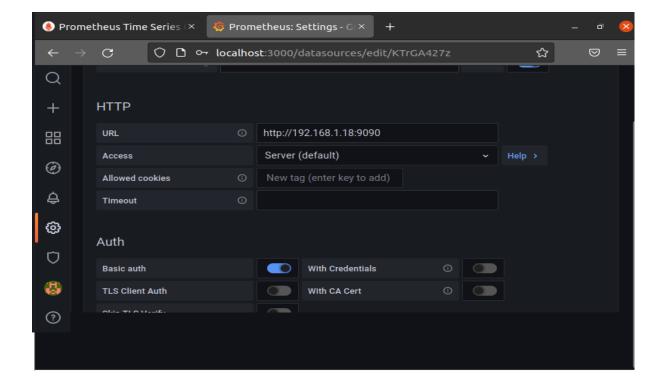
Next, we click on **Configuration -> Data sources** as follows;



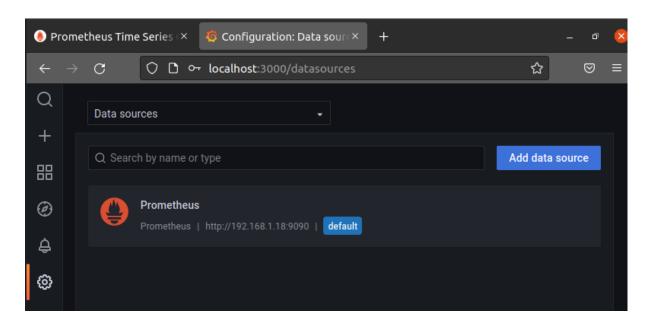
Next, we added prometheus as the data source in grafana data source configuration. Then we set name, URL and basic authentication as follows;



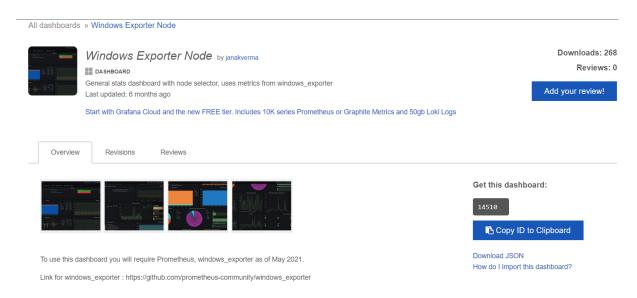
Prometheus configured successfully as data sources in grafana server as follows;



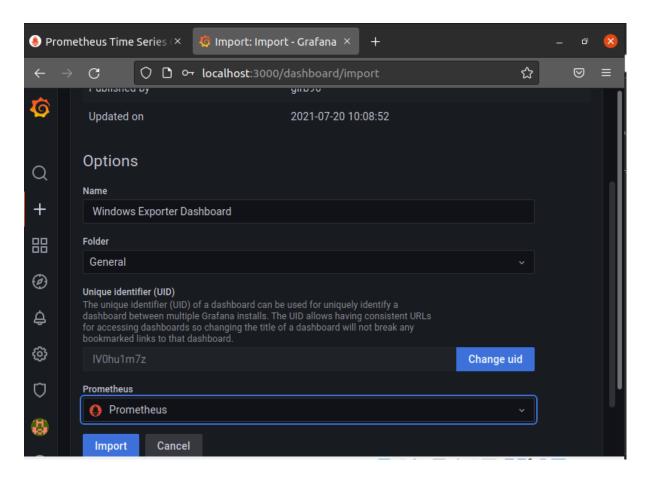
We save it and check the datasource by clicking on **setting** -> **datasource** as follows;



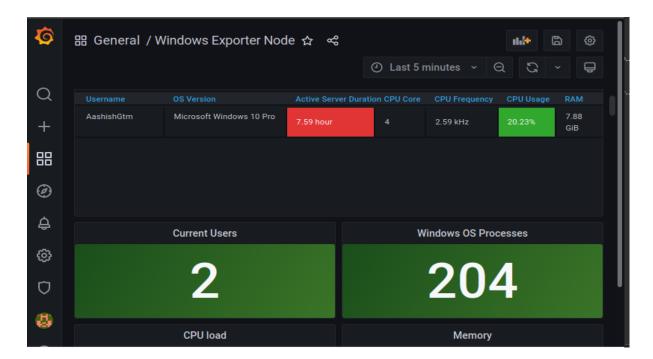
Now, we import the dashboard from https://grafana.com/grafana/dashboards/ for window_exporter as follows;



The import id is **14510**, so, we enter the import id and click on load button which will redirect to importing dashboard page as follows;



Next, we check the **window_exporter** node dashboard as follows;



Live metrics dashboard of window_exporter node;

