INSTALLING GRAFANA AND MAKING GRAPH

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer nec odio. Praesent libero. Integer nec odio.

- Launch Linux Ec2 instance
- Connect with Linux instance
- Install Prometheus
- Configure Prometheus
- Create a Systemd Service for Prometheus
- Start and Enable Prometheus
- Install and Configure Node Exporter

- Create a Systemd Service for Node Exporter
- Start and Enable Node Exporter
- Install Grafana
- Configure Grafana
- Monitor High CPU Utilization
- Graph

LAUNCH LINUX EC2 INSTANCE

 1. Navigate to Ec2
2. Click on Launch Instances
3. Write Instance name
4. Select Ubuntu Linux
5. Create Key Pair(.ppk)
6. Click on Launch Instance
7. Connect to Linux with putty

INSTALL AND CONFIGURE PROMETHEUS

1. Install Prometheus by running some commands

```
sudo useradd --no-create-home --shell /bin/false prometheus
sudo mkdir /etc/prometheus
sudo mkdir /var/lib/prometheus
sudo chown prometheus:prometheus /etc/prometheus /var/lib/prometheus


wget https://github.com/prometheus/prometheus/releases/download/v2.41.0/prometheus-2.4
tar -xvzf prometheus-2.41.0.linux-amd64.tar.gz
sudo cp prometheus-2.41.0.linux-amd64/prometheus /usr/local/bin/
sudo cp prometheus-2.41.0.linux-amd64/promtool /usr/local/bin/
sudo cp -r prometheus-2.41.0.linux-amd64/consoles /etc/prometheus
sudo cp -r prometheus-2.41.0.linux-amd64/console_libraries /etc/prometheus
sudo chown -R prometheus:prometheus /usr/local/bin/prometheus /usr/local/bin/promtool
```

CONFIGURE PROMETHEUS

Create a configuration file at /etc/prometheus/prometheus.yml with the following content

```
global:
  scrape_interval: 15s

scrape_configs:
  - job_name: 'node'
    static_configs:
      - targets: ['localhost:9100']
```

CREATE A SYSTEMD SERVICE FOR PROMETHEUS

```
sudo nano /etc/systemd/system/prometheus.service
```

step1 :- Add the following content to the service file

```
[Unit]
Description=Prometheus
Wants=network-online.target
After=network-online.target

[Service]
User=prometheus
Group=prometheus
Type=simple
ExecStart=/usr/local/bin/prometheus \
   --config.file /etc/prometheus/prometheus.yml \
   --storage.tsdb.path /var/lib/prometheus/ \
   --web.console.templates=/etc/prometheus/consoles \
   --web.console.libraries=/etc/prometheus/console_libraries

[Install]
WantedBy=multi-user.target
```

Start and Enable Prometheus:-

```
sudo systemctl daemon-reload
sudo systemctl start prometheus
sudo systemctl enable prometheus
```

INSTALL AND CONFIGURE NODE EXPORTER

1. Install Node Exporter

write some commands for installing node exporter

```
wget https://github.com/prometheus/node_exporter/releases/download/v1.4.0/node_exporte
tar -xvzf node_exporter-1.4.0.linux-amd64.tar.gz
sudo cp node_exporter-1.4.0.linux-amd64/node_exporter /usr/local/bin/
sudo useradd --no-create-home --shell /bin/false node_exporter
sudo chown node_exporter:node_exporter /usr/local/bin/node_exporter
```

2. Create a Systemd Service for Node Exporter

```
sudo nano /etc/systemd/system/node_exporter.service
```

Add the following content to the service file

```
[Unit]
Description=Node Exporter
Wants=network-online.target
After=network-online.target

[Service]
User=node_exporter
Group=node_exporter
Type=simple
ExecStart=/usr/local/bin/node_exporter

[Install]
WantedBy=multi-user.target
```

Start and Enable Node Exporter

```
sudo systemctl daemon-reload
sudo systemctl start node_exporter
sudo systemctl enable node_exporter
```
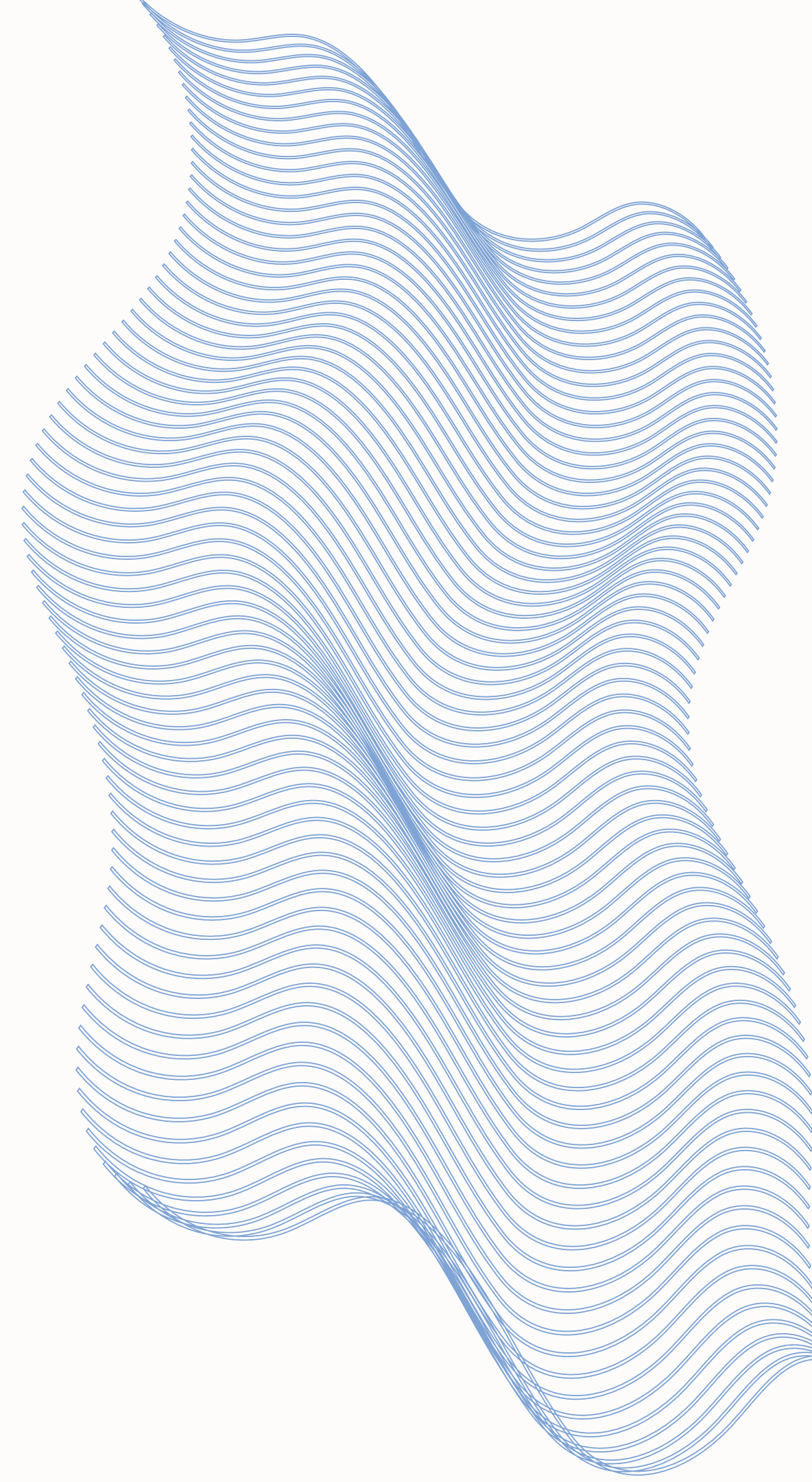
INSTALL GRAFANA

1. Add Grafana Repository

```
sudo tee /etc/yum.repos.d/grafana.repo<<EOF
[grafana]
name=grafana
baseurl=https://packages.grafana.com/oss/rpm
repo_gpgcheck=1
enabled=1
gpgcheck=1
gpgkey=https://packages.grafana.com/gpg.key
sslverify=1
sslcacert=/etc/pki/tls/certs/ca-bundle.crt
EOF
```

```
sudo yum install grafana -y
```

Start and Enable Grafana

```
sudo systemctl start grafana-server
sudo systemctl enable grafana-server
```

5. Configure grafana

* Access Grafana

1. Open your web browser and navigate to http://<your-ec2-public-ip>:3000

2. Log in with the default username and password (admin for both).
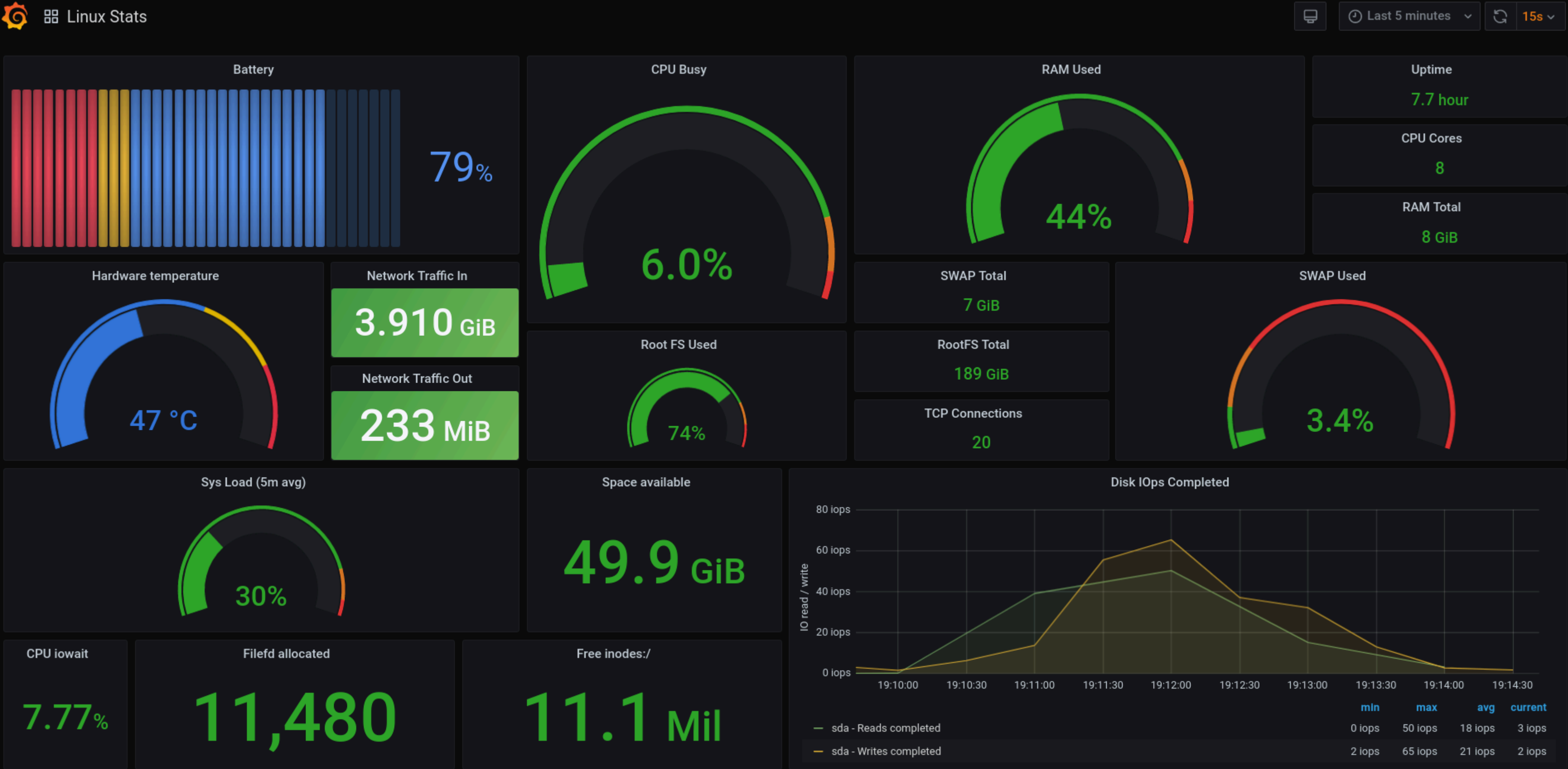
*Add Prometheus Data Source

*Create a Dashboard

*node_cpu_seconds_total{mode="idle"}

6. Monitor High CPU Utilization

-> Set Up Alerts (Optional)

In the Grafana panel settings, you can set up alerts to notify you when CPU utilization exceeds a certain threshold.

Result :-

LET'S CONNECT WITH ME!

THANK YOU!

Name:- Prashant Yadav

Phone no. :- +91 9125312553

Email :- prashantyadav91253@gmail.com