Docker installieren

```
sudo apt update

sudo apt install -y docker.io
```

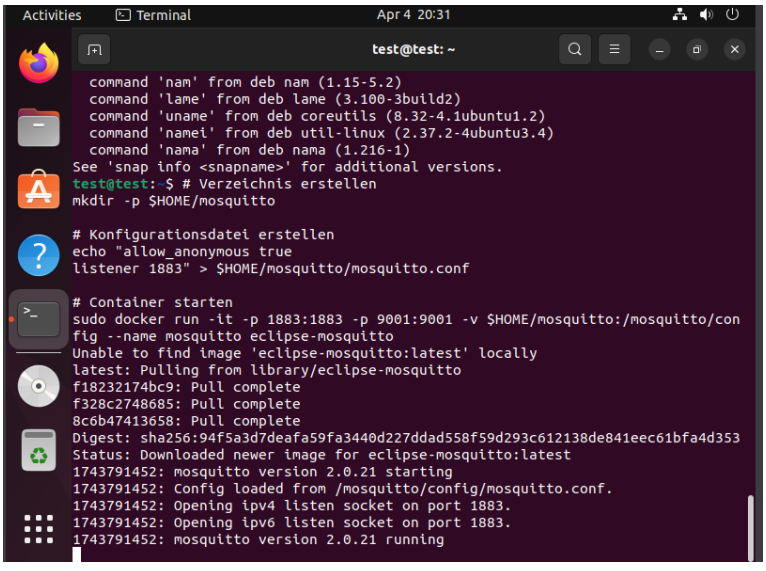
Der Befehl sudo apt install -y docker.io installiert Docker

Nach der Installation mit dem nächsten Schritt fortfahren und die MQTT-Client-Tools installieren:

```
sudo apt install -y mosquitto-clients
```

nächste Schritte:

```
# Verzeichnis erstellen

mkdir -p $HOME/mosquitto


# Konfigurationsdatei erstellen

echo "allow_anonymous true

listener 1883" > $HOME/mosquitto/mosquitto.conf


# Container starten

sudo docker run -it -p 1883:1883 -p 9001:9001 -v $HOME/mosquitto:/mosquitto/config --name mosquitto eclipse-mosquitto
```



Nachdem der Container läuft, neues Terminal-Fenster für die nächsten Schritte öffnen.

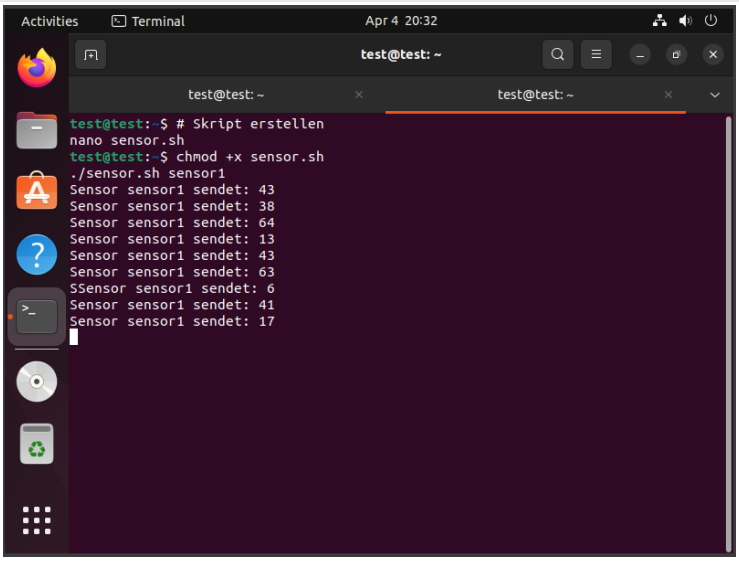
Sensor einrichten

```
# Skript erstellen

nano sensor.sh
```

diesen Code einfügen:

```
#!/bin/bash

while true; do

 VALUE=$((RANDOM % 100))

 echo "Sensor $1 sendet: $VALUE"

 mosquitto_pub -h 127.0.0.1 -t "sensor/$1" -m "$VALUE"

 sleep 2

done
```

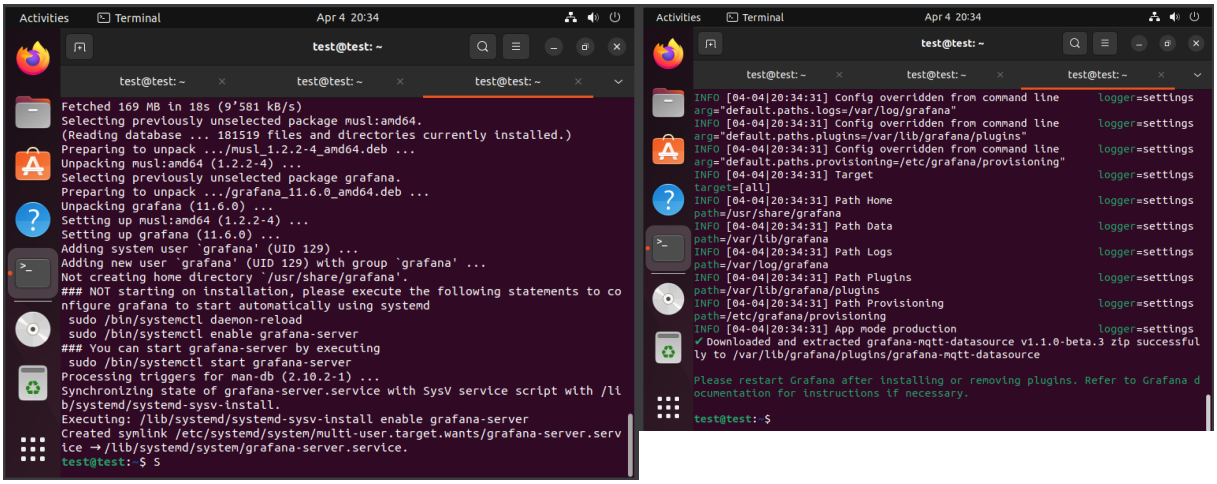
Ausführbar machen und starten:



Grafana installieren

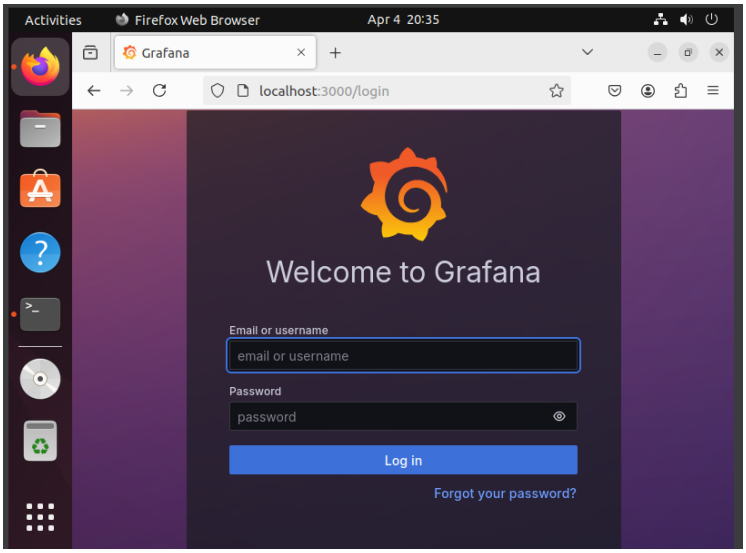
```
# Repository hinzufügen

sudo apt-get install -y apt-transport-https software-properties-common

sudo add-apt-repository "deb https://packages.grafana.com/oss/deb stable main"

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

sudo apt update

# Grafana installieren

sudo apt install -y grafana
```

```
# Starten

sudo systemctl start grafana-server

sudo systemctl enable grafana-server
```

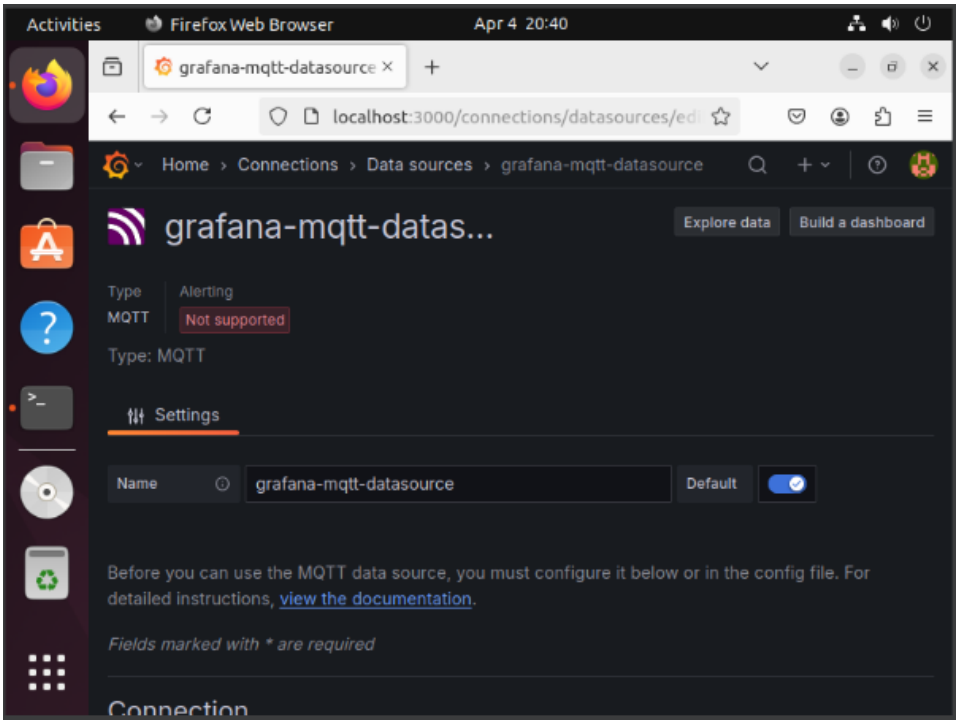


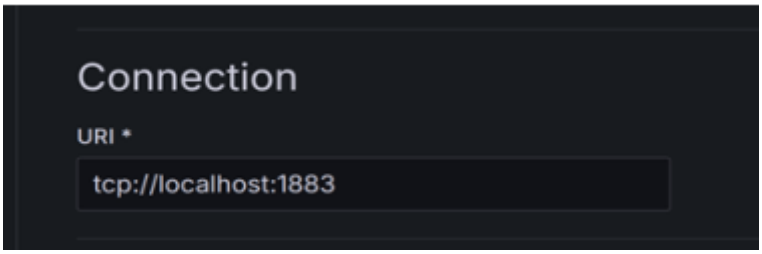
MQTT-Plugin installieren

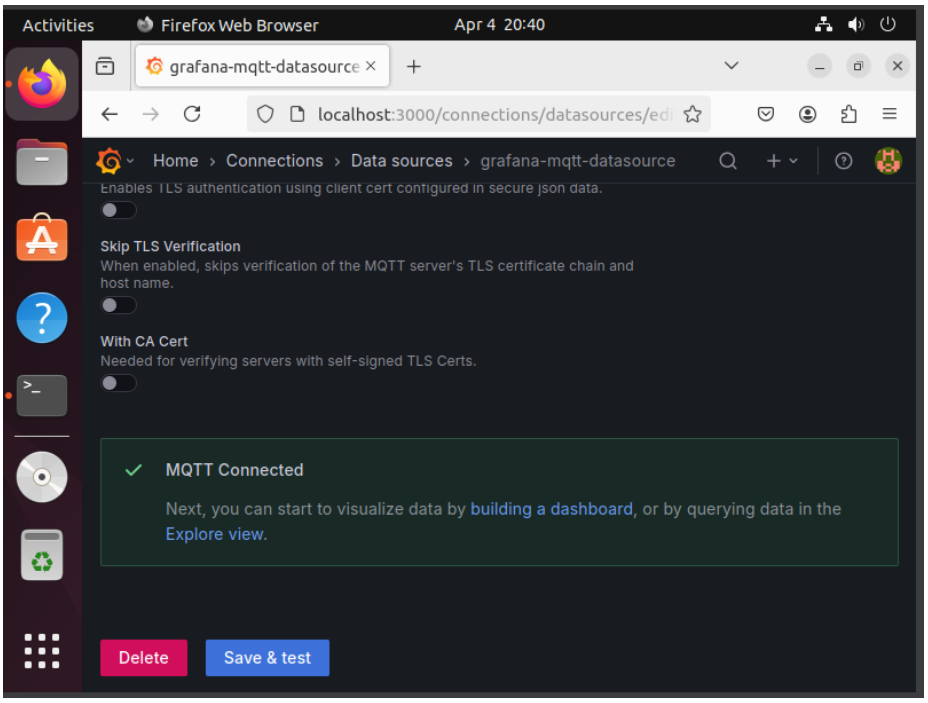
http://localhost:3000 im Browser öffnen, mit admin/admin anmelden und MQTT-Datenquelle und Dashboard einrichten.

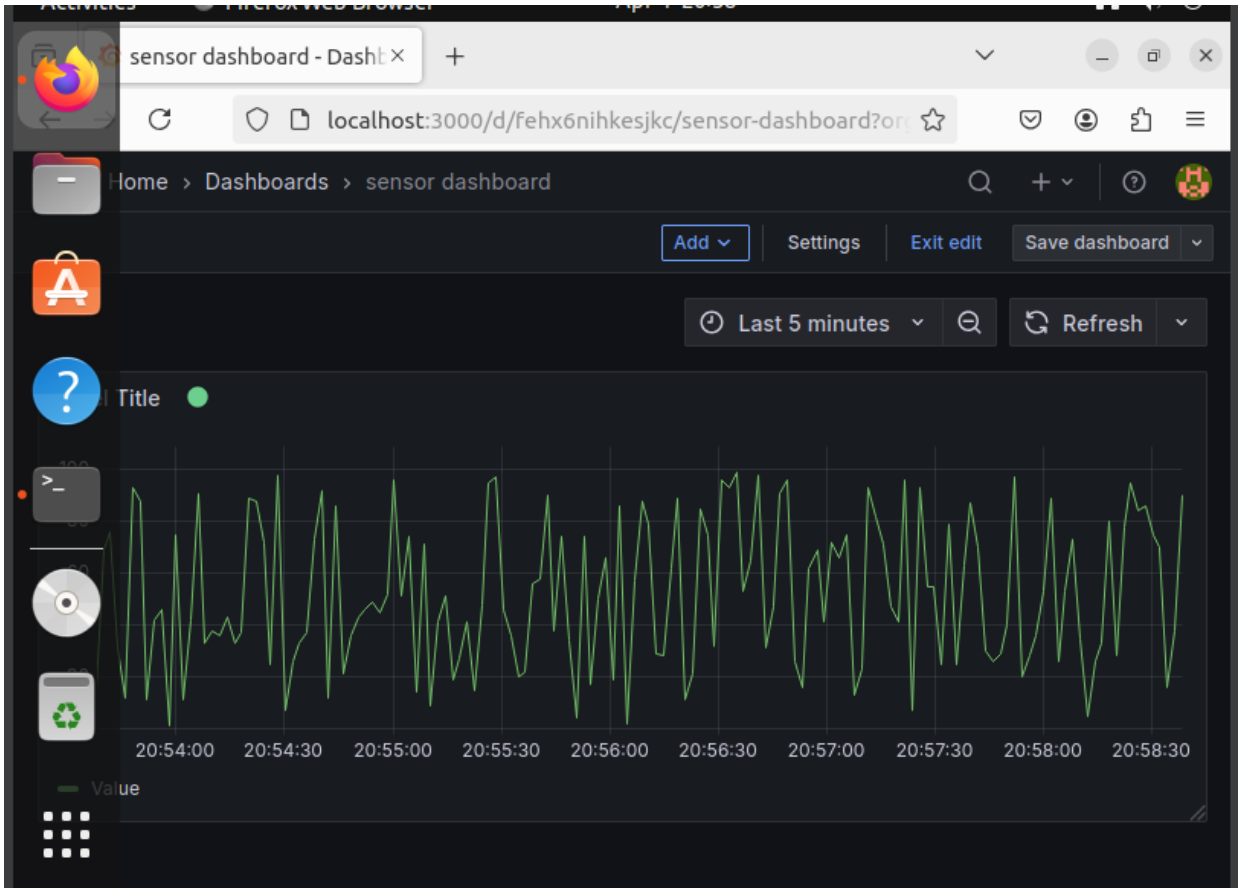


MQTT-Datenquelle hinzufügen








sensor dashboard - Dashb
localhost:3000/d/fehx6nihkesjkc/sensor-dashboard?or
Home › Dashboards › sensor dashboard
Add
Settings
Exit edit
Save dashboard
Last 5 minutes
Refresh
Title
20:54:00
20:54:30
20:55:00
20:55:30
20:56:00
20:56:30
20:57:00
20:57:30
20:58:00
20:58:30
Value