# Cloud Data Processing with NIG

## 1. NIG Stack




The NIG stack consists of three software packages:

- NodeRed
- InfluxDB
- Grafana

In the IoT world, this is a commonly used combination of software packages. All three are also (mostly) open-source. You can run this stack locally or in the cloud. Because it would be too much for this workshop series, we will not show you how to set this up. But if you want to get this stack up and running yourself, here are some steps that might help you. We encourage you to do some research on this yourself.

1. If you are on Linux, you can forward to step 2. If you are on Windows we recommend installing the Windows-Subsystem-for-Linux (WSL) with Ubuntu as the distribution.
2. Now that we are in our Linux (testing done in Ubuntu) environment, we can install docker. You can follow the steps on the official website: Install Docker Ubuntu. If you are on WSL, every time you start the system you need to restart docker with: `sudo service docker start`
3. Download NIG docker files here:

   Download local NIG files
4. Unpack the files into an empty folder
5. Open your WSL instance/Terminal and navigate to that folder. If you are using WSL you can find all the windows files under “/mnt/c/”.
6. `docker compose up`
7. Open the individual application locally:
   1. NodeRed
   2. Grafana
   3. Influx

## 2. NodeRed

## 3. InfluxDB

# 4. Grafana

## Recording

## Additional Links

The NIG stack was previously mentioned here:

- Introduction to IoT - Sensors and Data processing
- First steps with your NIG

Unfortunately, these guides are **not** up to date anymore, as they use an older version of the InfluxDB. Since Version 2 of that database, some details in the process have changed a bit and there is slighty more work to it now.