

Data Visualization

Online (cloud) platforms

- Thingspeak
- Xively
- Plot.ly
- Thethings.io
- And many others

Online platforms: Thingspeak (python) example

- For proxy:

```
Import urllib2
```

```
proxy=urllib2.ProxyHandler({'http':'10.8.0.1:8080','https':'10.8.0.1:8080'})
```

```
opener = urllib2.build_opener(proxy)urllib2.install_opener(opener)
```

- For uploading the data:

```
url = "https://api.thingspeak.com/update?api_key="+str(<thingspeak_write_id>)
```

```
url = url+"&field1="+str(data['TEMP'])
```

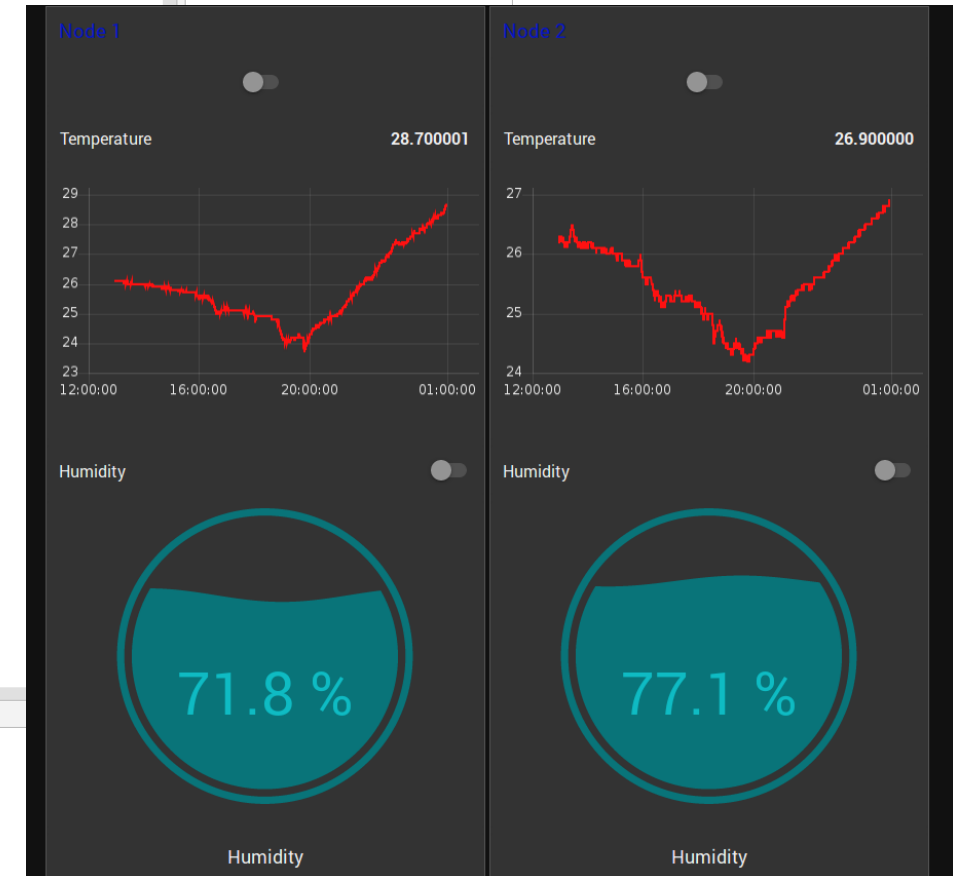
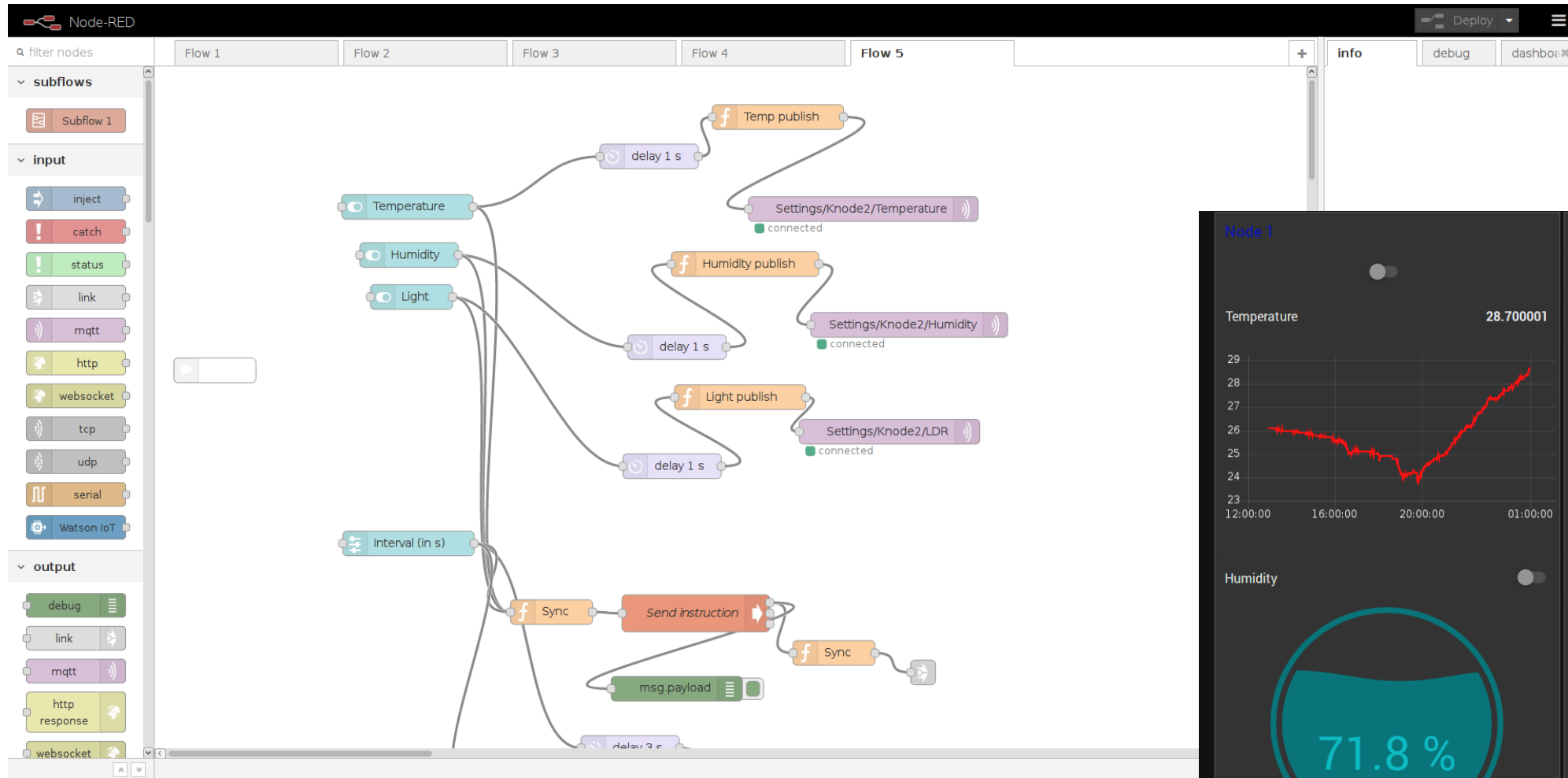
```
url = url+"&field2="+str(data['VOLT'])
```

```
url = url+"&field3="+str(data['PRES'])
```

```
url = url+"&field4="+str(data['HUM'])
```

```
response=urllib2.urlopen(url)
```

Data visualization without cloud: Node-RED



References

- <http://thingspeak.com/>
- <https://nodered.org/>
- <https://plot.ly/>
- <https://xively.com/>
- <http://noas.iitmandi.ac.in/nRF.html>
- <http://noas.iitmandi.ac.in/MQTT.html>

Thanks

- **DON'T FORGET TO CONFIGURE THE PROXY SETTING BEFORE PUSHING YOUR DATA TO CLOUD**