

Node-RED

Flow-based programming for the Internet of Things

Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

This instance is running as an IBM Cloud application, giving it access to the wide range of services available on the platform.

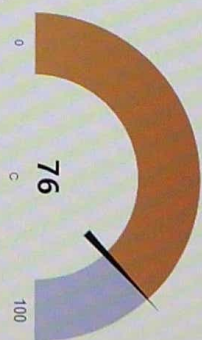
More information about Node-RED, including documentation, can be found at nodered.org.

Go to your Node-RED flow editor

[Learn how to customise Node-RED](#)

Default

Temperature



Humidity



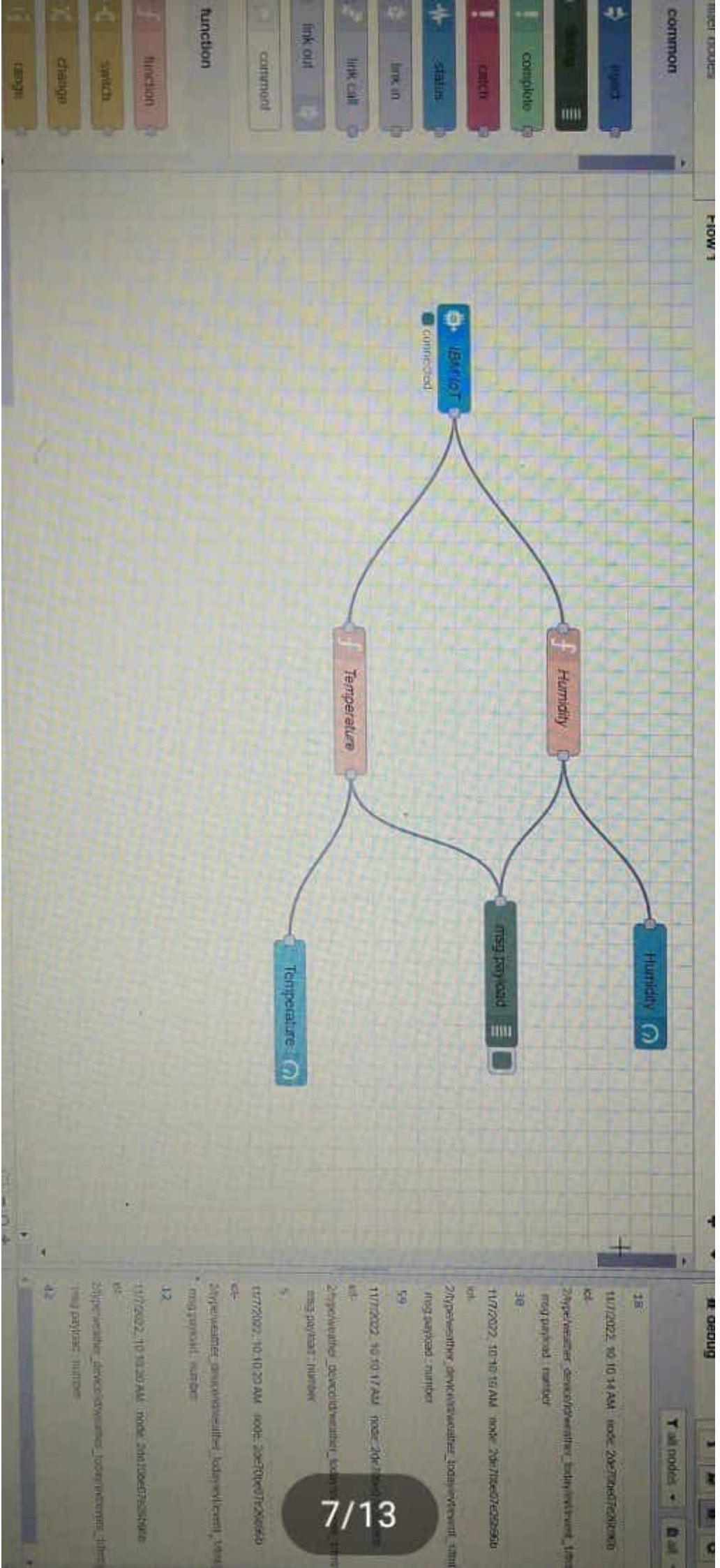
Default

Temperature



Humidity





Node RED QECIX 2022-11-04 [Add tags](#)

Details

App URL

<https://node-red-qecix-2022-11-04.eu-gb.mybluemix.net>

Source

<https://eu-gb.git.cloud.ibm.com/suganya.subramanian22/Node...>

Resource group

Default

Deployment target

Node RED QECIX 2022-11-04

Created

11/4/2022

Services

Cloudant

[Open dashboard](#) [Documentation](#) [API reference](#)

Credentials

[Connect existing services](#)[Create service](#)

Deployment Automation

Name
NodeREDQECIX2022-11-04Location
London

Tool integrations

Delivery Pipelines

Name
pr-pipelineStatus
No stages detectedName
ci-pipelineStatus
Success

Getting started quickly

Actions...

Configuring your app

To connect services and DevOps toolchains to your app:

1. Use the **Services** card to connect a service to your app. Select an existing service instance, or create a new one. [Learn more.](#)

2. If you want to view the code before your app is deployed, click **Download code** to obtain the .zip file.

3. Click **Deploy your app** in the **Deployment Automation** card to select the deployment target and configure the Continuous Delivery service. The deployment begins automatically.

4. After the deployment begins, you can view the status of the deployment, modify your app, view your repo, or view the app's URL.

5. If you make any changes to your app, be

```

organization = "myM2po"
deviceType = "weather_device"
deviceId = "weather_today"
authMethod = "token"
accessToken = "4c5tEOLzH197jWvXl"
initialize GPIO
temp=random.randint(0,100)
pulse=random.randint(0,100)
oxygen=random.randint(0,100)
at= 17
on=18

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    print(cmd)

deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-token": accessToken}
devicecli = IBMiotf.device.client(deviceOptions)
#.....

except Exception as e:
    print("Caught exception connecting device: %s" % str(e))
    sys.exit()
# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times
devicecli.connect()

while True:
    #Get Sensor Data from MPU1
    data = {"g":{ 'temp': temp, 'pulse': pulse, 'oxygen': oxygen, "lat":lat, "lon":lon}}
    #print data
    def myOnPublishCallback():
        print ("Published temperature = %s.c" % temp, "Humidity = %s" % pulse, "co IBM Watson")
    success = devicecli.publishEvent("iotSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
    if not success:
        print("Not connected to IoT")
    time.sleep(1)

devicecli.commandCallback = myCommandCallback
#Disconnect the device and application from the cloud
devicecli.disconnect()

```



```
import time
import sys
import ibmiotf.application
import ibmiotf.device

import random
```

```
Provide your IBM Watson Device Credentials
organization = "my2jg0"
```

```
deviceType = "weather_device"
```

```
deviceId = "weather_today"
```

```
authMethod = "token"
```

```
authToken = "4c9L5oLzB1971jv7Xr"
```

```
initialize GPIO
```

```
temp=random.randint(0,100)
```

```
hse=random.randint(0,100)
```

```
oxygen=random.randint(0,100)
```

```
ht=17
```

```
hn=18
```

```
myCommandCallback(cmd):
```

```
    print("Command received: %s" % cmd.data['command'])
```

```
    print(cmd)
```

```
my:
deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-token": authToken}
deviceClt = ibmiotf.device.Client(deviceOptions)
#.....
```

```
except Exception as e:
```

```
    print("Caught exception connecting device: %s" % str(e))
```

```
sys.exit()
```

```
connect and send a datapoint "hello" with value "world" into the cloud an event of type "greeting" 10 times
deviceClt.connect()
```

```
if __name__ == '__main__':
```

```
    #Get Sensor Data from DHT11
```

```
    data = {"id":1, "temp": temp, "hse": hse, "pulse": pulse, "oxygen": oxygen, "ht":ht, "hn":hn})
```

```
    #print data
```

```
    def myonPublishCallback():
```

```
        print ("Publishing Temperature = %s °C" % temp, "Humidity = %s %" % hse, "pulse", "no IBM Watson")
```

```
    success = deviceClt.publishEvent("greeting", "json", data, qos=0, on_publish=myonPublishCallback)
```

```
    if not success:
```

```
        print("Not connected to IoT Core")
```

Browse Devices

All Devices

Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Q Search by Device ID.

Device Simulator

☐ Device ID

Status

Device Type

Class ID

Date Added

☐ weather_device_1

Connected

weather_device

Device

7 Nov 2022 09:49

☐ weather_today

Disconnected

weather_device

Device

14 Oct 2022 10:10

Items per page 50 | 1-2 of 2 items



2 Simulations running

1 of 1 page

1

☐ Device ID
 ☐ Status
 ☐ Device Type
 ☐ Class ID
 ☐ Date Added

☒ weather_device_1
 ● Connected
 weather_device
 Device
 7 Nov 2022 09:49

Identity
 Device Information
 Recent Events
 State
 Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	{"temperature":40,"humidity":37}	json	a few seconds ago
event_1	{"temperature":37.4,"humidity":37}	json	a few seconds ago
event_1	{"temperature":32,"humidity":3}	json	a few seconds ago
event_1	{"temperature":39,"humidity":30}	json	a few seconds ago
event_1	{"temperature":3,"humidity":56}	json	a few seconds ago

Command Prompt

Microsoft Windows [Version 10.0.22000.1098]

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C:\Users\subis>pip install ibmiotf

Requirement already satisfied: ibmiotf in c:\programdata\anaconda3\lib\site-packages (0.4.0)

Requirement already satisfied: paho-mqtt>=1.3.1 in c:\programdata\anaconda3\lib\site-packages (from ibmiotf) (1.6.1)

Requirement already satisfied: iso8601>=0.1.12 in c:\programdata\anaconda3\lib\site-packages (from ibmiotf) (1.1.0)

Requirement already satisfied: requests>=2.18.4 in c:\programdata\anaconda3\lib\site-packages (from ibmiotf) (2.24.0)

Requirement already satisfied: pytz>=2017.3 in c:\programdata\anaconda3\lib\site-packages (from ibmiotf) (2020.1)

Requirement already satisfied: requests-toolbelt>=0.8.0 in c:\programdata\anaconda3\lib\site-packages (from ibmiotf) (0.10.1)

Requirement already satisfied: urllib3>=1.25.0, <1.25.1, <1.26, >=1.21.1 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.18.4->ibmiotf) (1.25.11)

Requirement already satisfied: chardet<4, >=3.0.2 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.18.4->ibmiotf) (3.0.4)

Requirement already satisfied: idna<3, >=2.5 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.18.4->ibmiotf) (2.10)

Requirement already satisfied: certifi>=2017.4.17 in c:\programdata\anaconda3\lib\site-packages (from requests>=2.18.4->ibmiotf) (2020.6.20)

C:\Users\subis>