

Build A Web Application Using Node-RED Service

Date	06 November 2022
Team ID	PNT2022TMID32826
Project Name	Smart farmer - IoT Enabled Smart Farming Application

```
Python Code.py - C:\Users\A S ABISHEK\AppData\Local\Programs\Python\Python37\Python Code.py (3.7.0)
File Edit Format Run Options Window Help
import wiotp.sdk.device
import time
import os
import datetime
import random
myConfig={
    "identity":{
        "orgId":"ug23sr",
        "typeId":"Smart_Farming",
        "deviceId":"32826"
    },
    "auth": {
        "token":"3wNLT00lg8VpEJEpsq"
    }
}
client=wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
    if(m=="motoron"):
        print("Motor is switched ON")
    elif(m=="motoroff"):
        print("Motor is switched OFF")
    print(" ")
while True:
    soil=random.randint(0,100)
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'soil_moisture':soil,'temperature':temp,'humidity':hum}
    client.publishEvent(eventId="status",msgFormat="json",data=myData,qos=0,onPublish=None)
    print("Published data successfully: %s",myData)
    time.sleep(2)
    client.commandCallback=myCommandCallback
client.disconnect()
```

Ln: 1 Col: 0

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Python 3.7.0 Shell

File Edit Shell Debug Options Window Help

Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32

Type "copyright", "credits" or "license()" for more information.

>>>

RESTART: C:\Users\A S ABISHEK\AppData\Local\Programs\Python\Python37\Python Code.py

2022-11-06 18:02:36,611 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:uq23sr:Smart_Farming:32826Published
data successfully: %s

{'soil_moisture': 96, 'temperature': 22, 'humidity': 3}

Published data successfully: %s {'soil_moisture': 69, 'temperature': 100, 'humidity': 59}

Published data successfully: %s {'soil_moisture': 20, 'temperature': -14, 'humidity': 65}

Published data successfully: %s {'soil_moisture': 71, 'temperature': -8, 'humidity': 61}

Published data successfully: %s {'soil_moisture': 11, 'temperature': 78, 'humidity': 5}

Published data successfully: %s {'soil_moisture': 69, 'temperature': 91, 'humidity': 25}

Published data successfully: %s {'soil_moisture': 54, 'temperature': 78, 'humidity': 11}

Published data successfully: %s {'soil_moisture': 61, 'temperature': 27, 'humidity': 67}

Traceback (most recent call last):

File "C:\Users\A S ABISHEK\AppData\Local\Programs\Python\Python37\Python Code.py", line 33, in <module>

time.sleep(2)

KeyboardInterrupt

>>> |

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IBM Cloud x Node-RED: node x IBM Watson IoT x Developer Api x IBM x IoT-B11-5A1E (E x (6932) how to se x +

node-red-zncis-2022-11-04.au-syd.mybluemix.net/red/#

Node-RED Deploy

filter nodes

Flow 1

filter

OpenWhisk

network

mqtt in

mqtt out

http in

http response

http request

websocket in

websocket out

tcp in

tcp out

tcp request

Soil Moisture

Humidity

Temperature

switch

http request

msg.payload

[get] /data

data

http

MOTOR ON

MOTOR OFF

IBM IoT

msg.payload

debug

all nodes

all

msg.payload : number

54

06/11/2022, 18:02:57 node: c7bc968f68e5d4e5

iot-2/type/Smart_Farming/id/32826/evt/status/fmt/json :

msg.payload : number

11

06/11/2022, 18:02:58 node: c7bc968f68e5d4e5

iot-2/type/Smart_Farming/id/32826/evt/status/fmt/json :

msg.payload : number

78

06/11/2022, 18:02:59 node: c7bc968f68e5d4e5

iot-2/type/Smart_Farming/id/32826/evt/status/fmt/json :

msg.payload : number

61

06/11/2022, 18:03:00 node: c7bc968f68e5d4e5

iot-2/type/Smart_Farming/id/32826/evt/status/fmt/json :

msg.payload : number

67

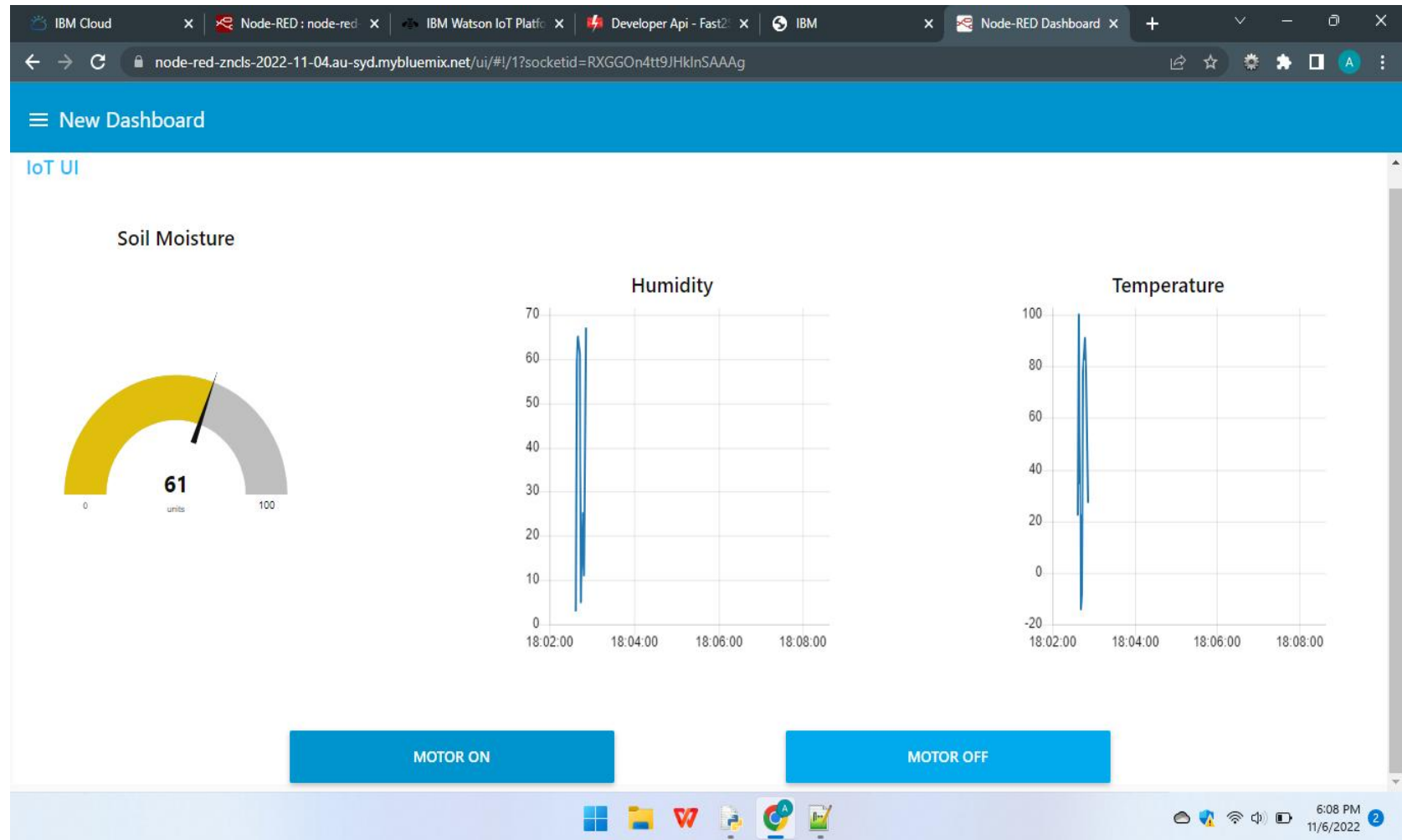
06/11/2022, 18:03:01 node: c7bc968f68e5d4e5

iot-2/type/Smart_Farming/id/32826/evt/status/fmt/json :

msg.payload : number

27

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IBM Cloud x Node-RED : node-red x IBM Watson IoT Platf x Developer Api - Fast2 x IBM x Node-RED Dashboard x +

node-red-zncls-2022-11-04.au-syd.mybluemix.net/red/#

Node-RED

Deploy

filter nodes

Flow 1

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mqtt in

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Soil Moisture

Humidity

Temperature

Soil Moisture

Humidity

Temperature

msg.payload

switch

http request

msg.payload

[get] /data

data

http

MOTOR ON

MOTOR OFF

[get] /command

msg.payload

http

debug

all nodes

all

06/11/2022, 18:02:58 node: c7bc968f68e5d4e5
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iot-2/type/Smart_Farming/id/32826/evt/status/fmt/json :
msg.payload : number
27

06/11/2022, 18:07:57 node: 47237c95f9032d61
msg.payload : Object
{ command: "motoron" }

06/11/2022, 18:08:03 node: 47237c95f9032d61
msg.payload : Object
{ command: "motoroff" }

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