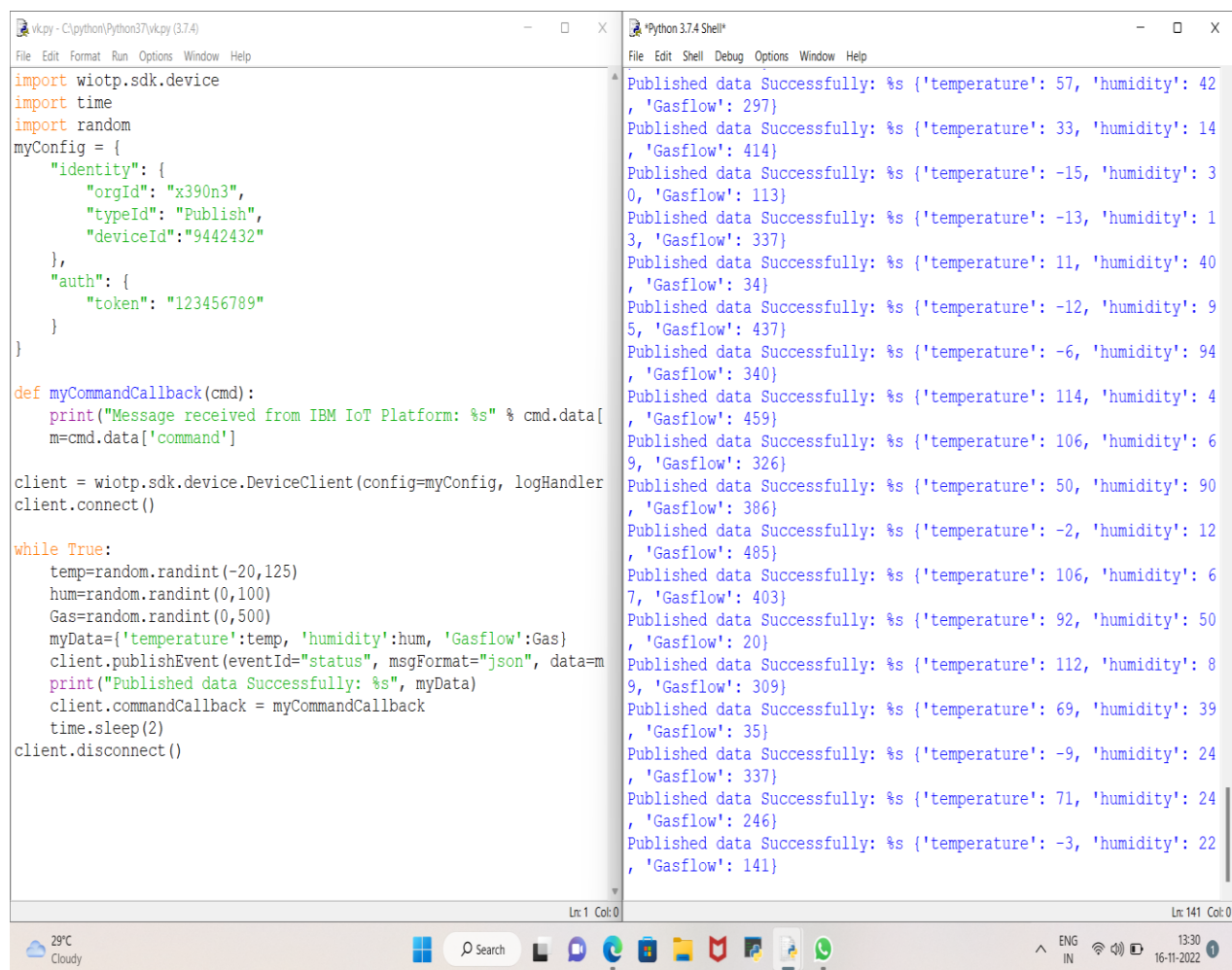


Sprint – 3

Team ID: PNT2022TMID40473

WEB APPLICATION DEVELOPMENT:

Web UI Using Node-RED



The image shows a screenshot of a Windows desktop with two windows open. The left window is a Python script editor titled 'vkpy - C:\python\Python37\vkpy (3.7.4)'. It contains a Python script that uses the 'wiotp.sdk.device' module to connect to an IBM IoT Platform. The script defines a configuration object 'myConfig' with 'identity' and 'auth' fields. It then defines a callback function 'myCommandCallback' that prints messages received from the platform. The script creates a 'DeviceClient' and connects to the platform, then enters a loop where it generates random temperature, humidity, and gas flow data, publishes it as JSON events, and sleeps for 2 seconds before disconnecting.

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "x390n3",
        "typeId": "Publish",
        "deviceId": "9442432"
    },
    "auth": {
        "token": "123456789"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data)
    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandler=client.connect())

while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    Gas=random.randint(0,500)
    myData={'temperature':temp, 'humidity':hum, 'Gasflow':Gas}
    client.publishEvent(eventId="status", msgFormat="json", data=myData)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

The right window is a 'Python 3.7.4 Shell' titled 'Python 3.7.4 Shell'. It displays the output of the script, showing a series of 'Published data Successfully' messages, each followed by a JSON object containing 'temperature', 'humidity', and 'Gasflow' values. The output is truncated at the bottom with 'Ln: 141 Col: 0'.

```
Published data Successfully: %s {'temperature': 57, 'humidity': 42, 'Gasflow': 297}
Published data Successfully: %s {'temperature': 33, 'humidity': 14, 'Gasflow': 414}
Published data Successfully: %s {'temperature': -15, 'humidity': 3, 'Gasflow': 113}
Published data Successfully: %s {'temperature': -13, 'humidity': 1, 'Gasflow': 337}
Published data Successfully: %s {'temperature': 11, 'humidity': 40, 'Gasflow': 34}
Published data Successfully: %s {'temperature': -12, 'humidity': 9, 'Gasflow': 437}
Published data Successfully: %s {'temperature': -6, 'humidity': 94, 'Gasflow': 340}
Published data Successfully: %s {'temperature': 114, 'humidity': 4, 'Gasflow': 459}
Published data Successfully: %s {'temperature': 106, 'humidity': 6, 'Gasflow': 326}
Published data Successfully: %s {'temperature': 50, 'humidity': 90, 'Gasflow': 386}
Published data Successfully: %s {'temperature': -2, 'humidity': 12, 'Gasflow': 485}
Published data Successfully: %s {'temperature': 106, 'humidity': 6, 'Gasflow': 403}
Published data Successfully: %s {'temperature': 92, 'humidity': 50, 'Gasflow': 20}
Published data Successfully: %s {'temperature': 112, 'humidity': 8, 'Gasflow': 309}
Published data Successfully: %s {'temperature': 69, 'humidity': 39, 'Gasflow': 35}
Published data Successfully: %s {'temperature': -9, 'humidity': 24, 'Gasflow': 337}
Published data Successfully: %s {'temperature': 71, 'humidity': 24, 'Gasflow': 246}
Published data Successfully: %s {'temperature': -3, 'humidity': 22, 'Gasflow': 141}
```

The taskbar at the bottom shows the system clock as 13:30 on 16-11-2022, and the weather as 29°C Cloudy.

Node-RED x IBM App Development x Node-RED: 169.51.206.158 x LEAK D-DET x IBM Watson IoT Platform x

https://x390n3.internetofthings.ibmcloud.com/dashboard/devices/browse

vinothkumar29001@gmail.com
ID: x390n3

IBM Watson IoT Platform

Browse Action Device Types Interfaces

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
status	{"temperature":37,"humidity":54,"Gasflow":78}	json	a few seconds ago
status	{"temperature":29,"humidity":72,"Gasflow":222}	json	a few seconds ago
status	{"temperature":119,"humidity":24,"Gasflow":64}	json	a few seconds ago
status	{"temperature":94,"humidity":97,"Gasflow":398}	json	a few seconds ago
status	{"temperature":-18,"humidity":37,"Gasflow":360}	json	a few seconds ago

Items per page 50 | 1-2 of 2 items

1 of 1 page

29°C Cloudy

Search

ENG IN

13:30 16-11-2022

Node-RED x IBM App Development x Node-RED: 169.51.206.158 x LEAK D-DET x IBM Watson IoT Platform x sprint3.pdf

Not secure | 169.51.206.158:30293/red/#flow/e68f57a521a488fc

Node-RED

filter nodes

- button
- dropdown
- switch
- slider
- numeric
- text input
- date picker
- colour picker
- form
- text
- gauge
- chart
- audio out
- notification
- ui control
- template

msg.payload

function

Temp

Humidity

Gas

Click to export

dashboard

Layout Site Theme

tabs & links

- Home
- Monitoring Gas Flow
 - Gas
 - spacer 1x1
- Sensor Data
- Group 3
- Manage Data
 - Export Data
- About Leak D-dect
 - http://
- Help & Support
 - Q&A

29°C Cloudy

Search

ENG IN

13:51 16-11-2022

