Sprint - 2

Dashboard and Control Tab

Date	08 November 2022
Team ID	PNT2022TMID23394
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

As a user I want to access My dashboard tab.
As a user I want to access my control tab.

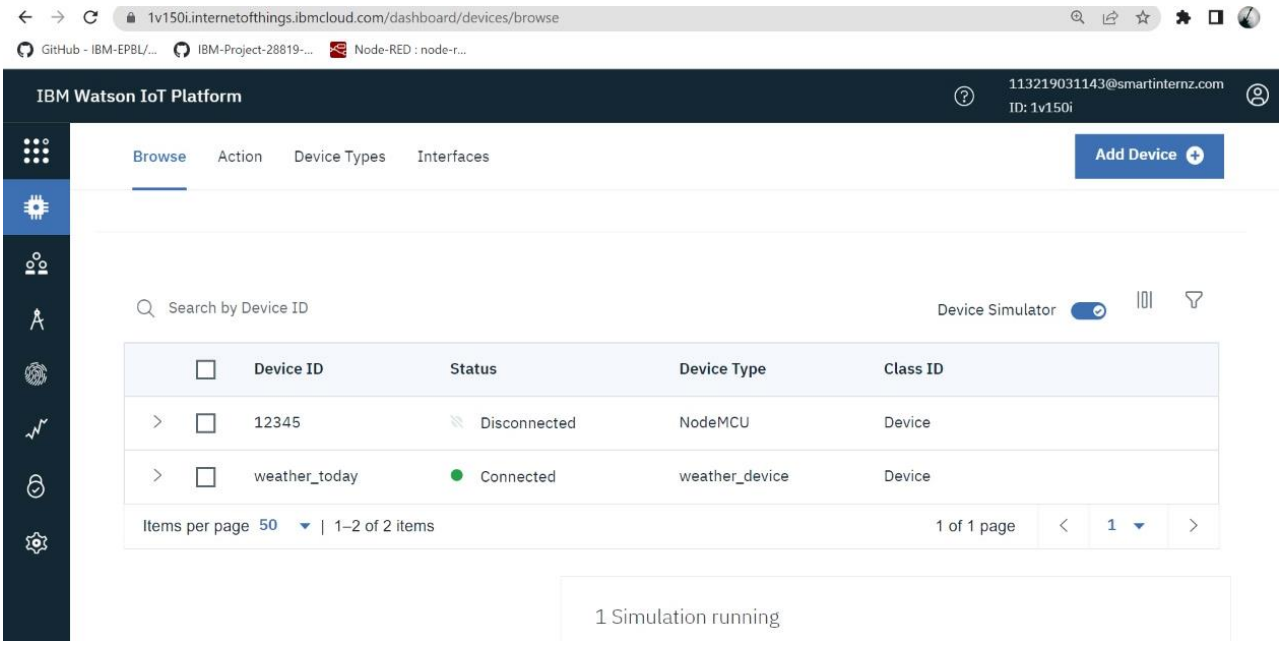
main.py

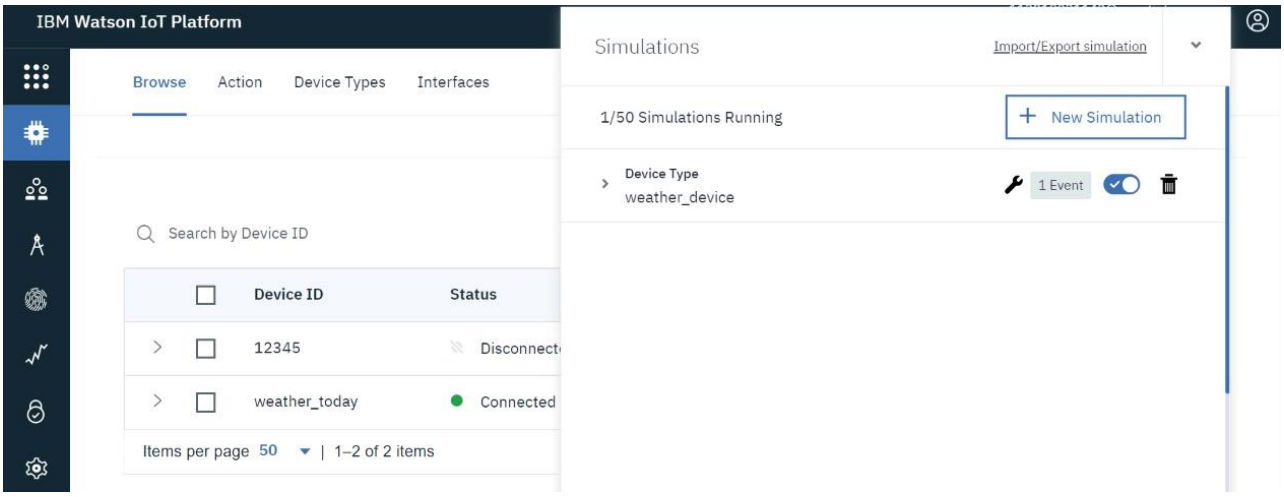
C: > Users > SangeethaVP > Desktop > IBM > main.py > ...

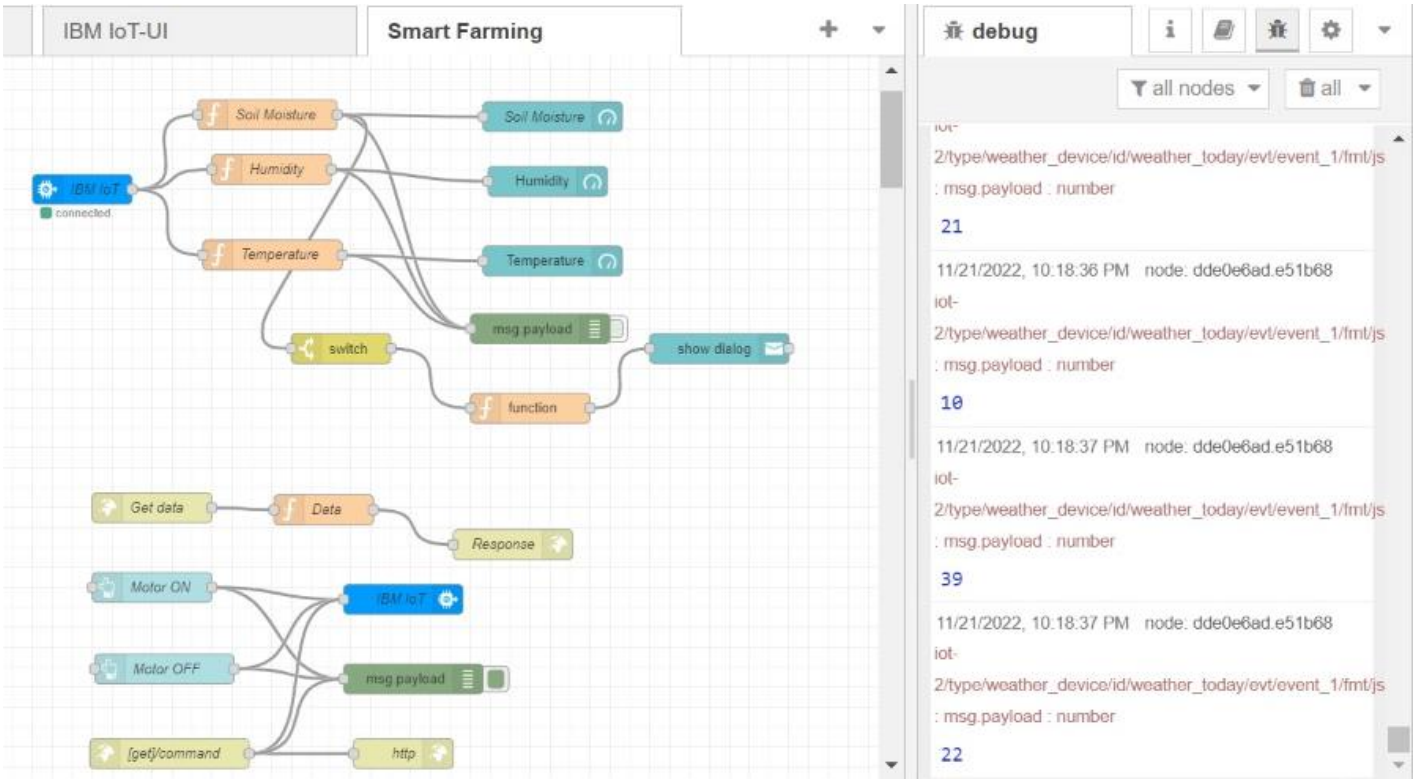
```
#import sys
#sys.path.append('C:/Users/SangeethaVP/AppData/Local/Programs/Python/Python37/Lib/site-packages')
import time
import os
import datetime
import random
import wiotp.sdk.application
#CallBack function to receive the commands from cloud
def myCommandCallback(cmd):
 print ("Message received 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(" ")
#Device credentials
myConfig = {
"identity": {
"orgId": "1v150i",
"typeId": "weather_device",
"deviceId": "weather_today"
},
"auth": {
"token": "J2qEAJhe2npnh-Nj1D"
}
}
#Making Connection to cloud
client = wiotp.sdk.device.DeviceClient(config=myConfig,
logHandlers=None)
client.connect()
#Sending data for every 2 seconds to cloud
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
#Disconnected from cloud
client.disconnect()
```

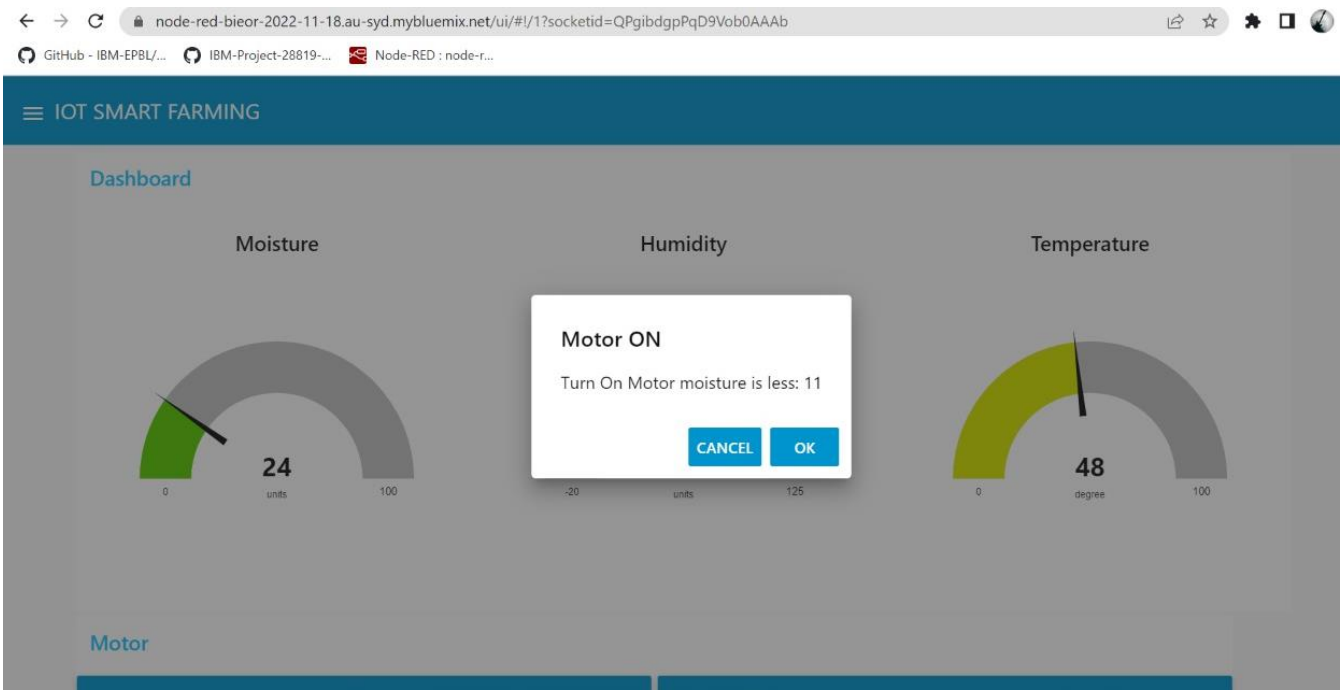
C:\Windows\System32\cmd.exe - python main.py

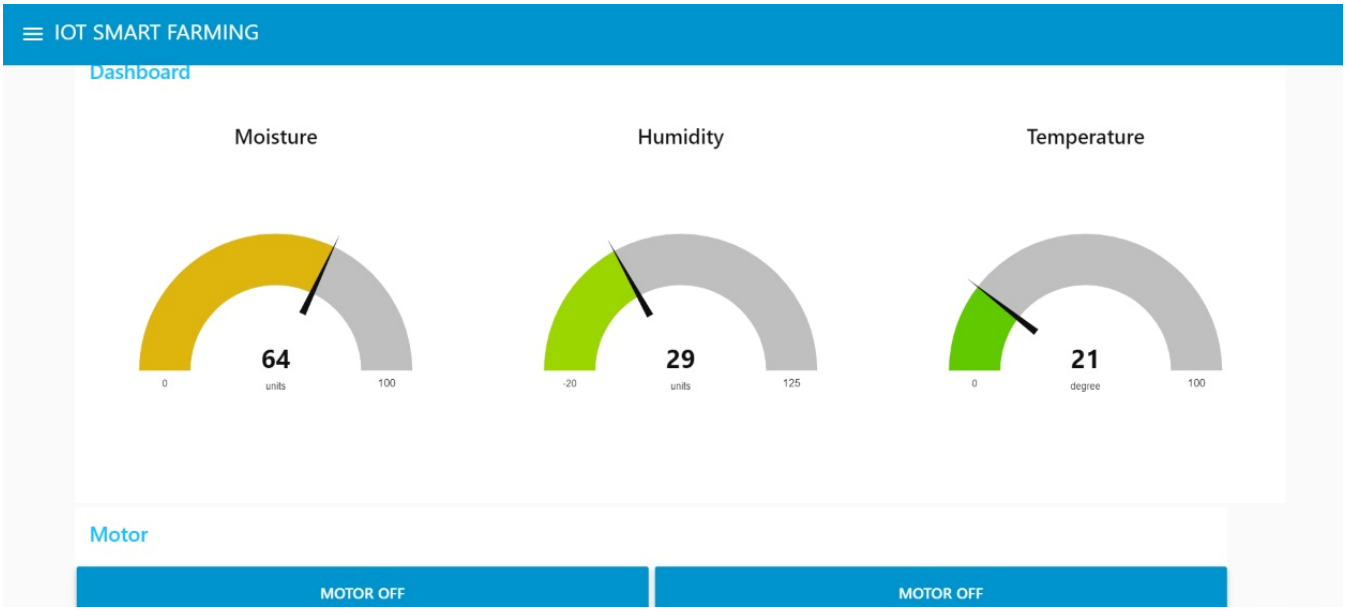
```
Microsoft Windows [Version 10.0.19045.2311]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SangeethaVP\Desktop\IBM>python main.py

2022-11-21 22:46:01,864   wiotp.sdk.device.client.DeviceClient  INFO    Connected successfully: d:1v150i:weather_device:weather_today
Published data Successfully: %s {'soil_moisture': 67, 'temperature': 82, 'humidity': 7}
Published data Successfully: %s {'soil_moisture': 12, 'temperature': 31, 'humidity': 65}
```






IBM IoT-UI
Smart Farming
debug
all nodes
all
Soil Moisture
Humidity
Temperature
IBM IoT
connected
Soil Moisture
Humidity
Temperature
msg.payload
switch
show dialog
function
Get data
Data
Response
Motor ON
Motor OFF
IBM IoT
msg.payload
[get]/command
http
2/type/weather_device/id/weather_today/evt/event_1/fmt/js
: msg.payload : number
21
11/21/2022, 10:18:36 PM node: dde0e6ad.e51b68
iot-
2/type/weather_device/id/weather_today/evt/event_1/fmt/js
: msg.payload : number
10
11/21/2022, 10:18:37 PM node: dde0e6ad.e51b68
iot-
2/type/weather_device/id/weather_today/evt/event_1/fmt/js
: msg.payload : number
39
11/21/2022, 10:18:37 PM node: dde0e6ad.e51b68
iot-
2/type/weather_device/id/weather_today/evt/event_1/fmt/js
: msg.payload : number
22


node-red-bieor-2022-11-18.au-syd.mybluemix.net/ui/#!/1?socketid=QPgibdgpPqD9Vob0AAAb
GitHub - IBM-EPBL/...
IBM-Project-28819-...
Node-RED : node-r...
IOT SMART FARMING
Dashboard
Moisture
Humidity
Temperature
Motor ON
Turn On Motor moisture is less: 11
CANCEL
OK
24
units
48
degree
Motor


IOT SMART FARMING
Dashboard
Moisture
64
0
units
100
Humidity
29
-20
units
125
Temperature
21
0
degree
100
Motor
MOTOR OFF
MOTOR OFF