

# Smart Farmer - IoT Enabled Smart Farming Application

## SPRINT - 2

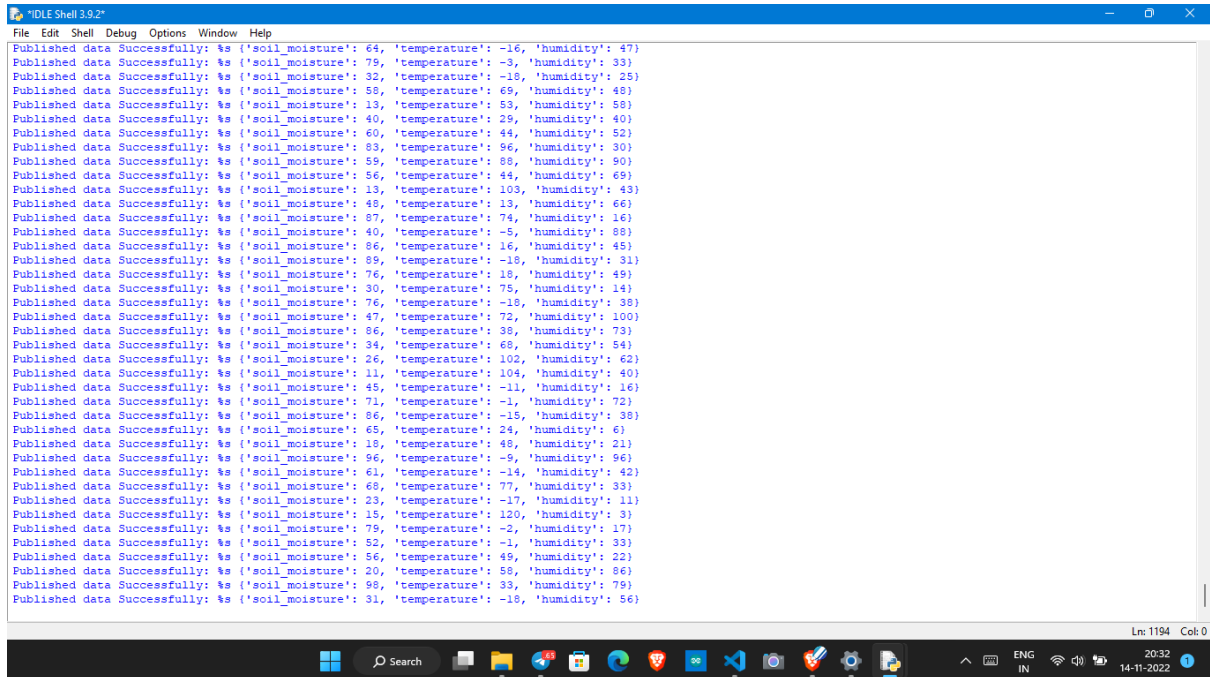
TEAM ID	PNT2022TMID04114
DATE	14 <sup>TH</sup> NOVEMBER 2022

IBM Watson IoT platform, Workflows for IoT scenarios using Node

red: Building Project:

Connecting IOT Simulator to IBM Watson IOTPlatform.

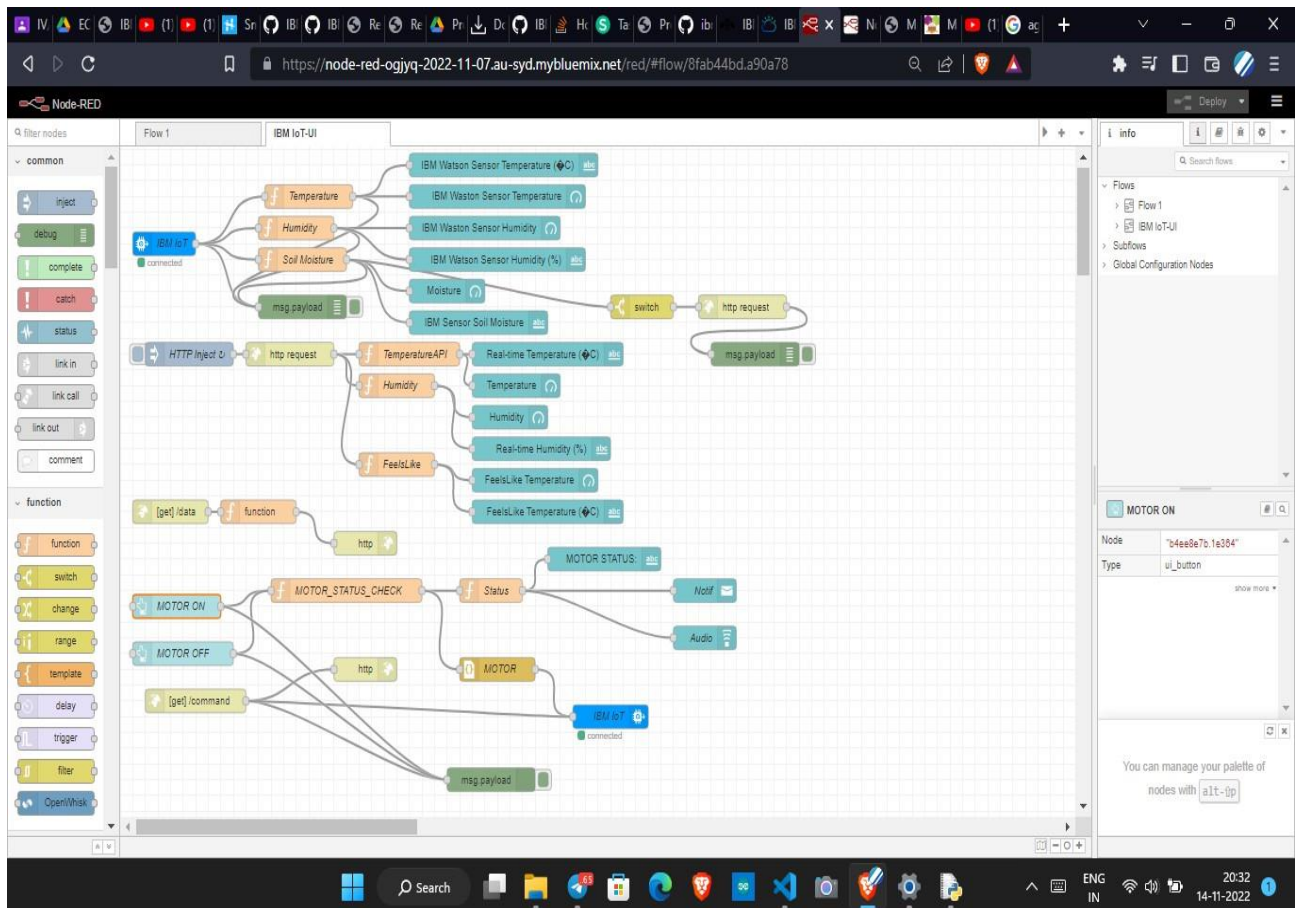
Give the credentials of your device in IBM Watson "orgId": "04gt4e",  
"typeId": "NodeMCU", "deviceId": "12345"



```
"IDLE Shell 3.9.2"
File Edit Shell Debug Options Window Help
Published data Successfully: %s ('soil_moisture': 64, 'temperature': -16, 'humidity': 47)
Published data Successfully: %s ('soil_moisture': 79, 'temperature': -3, 'humidity': 33)
Published data Successfully: %s ('soil_moisture': 32, 'temperature': -18, 'humidity': 25)
Published data Successfully: %s ('soil_moisture': 58, 'temperature': 69, 'humidity': 48)
Published data Successfully: %s ('soil_moisture': 13, 'temperature': 53, 'humidity': 58)
Published data Successfully: %s ('soil_moisture': 40, 'temperature': 29, 'humidity': 40)
Published data Successfully: %s ('soil_moisture': 60, 'temperature': 44, 'humidity': 52)
Published data Successfully: %s ('soil_moisture': 83, 'temperature': 96, 'humidity': 30)
Published data Successfully: %s ('soil_moisture': 59, 'temperature': 88, 'humidity': 90)
Published data Successfully: %s ('soil_moisture': 56, 'temperature': 44, 'humidity': 69)
Published data Successfully: %s ('soil_moisture': 13, 'temperature': 103, 'humidity': 43)
Published data Successfully: %s ('soil_moisture': 48, 'temperature': 13, 'humidity': 66)
Published data Successfully: %s ('soil_moisture': 87, 'temperature': 74, 'humidity': 16)
Published data Successfully: %s ('soil_moisture': 40, 'temperature': -5, 'humidity': 88)
Published data Successfully: %s ('soil_moisture': 86, 'temperature': 16, 'humidity': 45)
Published data Successfully: %s ('soil_moisture': 89, 'temperature': -18, 'humidity': 31)
Published data Successfully: %s ('soil_moisture': 76, 'temperature': 18, 'humidity': 49)
Published data Successfully: %s ('soil_moisture': 30, 'temperature': 75, 'humidity': 14)
Published data Successfully: %s ('soil_moisture': 76, 'temperature': -18, 'humidity': 38)
Published data Successfully: %s ('soil_moisture': 47, 'temperature': 72, 'humidity': 100)
Published data Successfully: %s ('soil_moisture': 86, 'temperature': 38, 'humidity': 73)
Published data Successfully: %s ('soil_moisture': 34, 'temperature': 68, 'humidity': 54)
Published data Successfully: %s ('soil_moisture': 26, 'temperature': 102, 'humidity': 62)
Published data Successfully: %s ('soil_moisture': 11, 'temperature': 104, 'humidity': 40)
Published data Successfully: %s ('soil_moisture': 45, 'temperature': -11, 'humidity': 16)
Published data Successfully: %s ('soil_moisture': 71, 'temperature': -1, 'humidity': 72)
Published data Successfully: %s ('soil_moisture': 86, 'temperature': -15, 'humidity': 38)
Published data Successfully: %s ('soil_moisture': 65, 'temperature': 24, 'humidity': 6)
Published data Successfully: %s ('soil_moisture': 18, 'temperature': 48, 'humidity': 21)
Published data Successfully: %s ('soil_moisture': 96, 'temperature': -9, 'humidity': 96)
Published data Successfully: %s ('soil_moisture': 61, 'temperature': -14, 'humidity': 42)
Published data Successfully: %s ('soil_moisture': 68, 'temperature': 77, 'humidity': 33)
Published data Successfully: %s ('soil_moisture': 23, 'temperature': -17, 'humidity': 11)
Published data Successfully: %s ('soil_moisture': 15, 'temperature': 120, 'humidity': 3)
Published data Successfully: %s ('soil_moisture': 79, 'temperature': -2, 'humidity': 17)
Published data Successfully: %s ('soil_moisture': 52, 'temperature': -1, 'humidity': 33)
Published data Successfully: %s ('soil_moisture': 56, 'temperature': 49, 'humidity': 22)
Published data Successfully: %s ('soil_moisture': 20, 'temperature': 58, 'humidity': 86)
Published data Successfully: %s ('soil_moisture': 98, 'temperature': 33, 'humidity': 79)
Published data Successfully: %s ('soil_moisture': 31, 'temperature': -18, 'humidity': 56)
```

The node IBM IOT App In is added to Node-Red workflow.

Then the appropriate device credentials obtained earlier are entered into the node to connect and fetch device telemetry to Node-Red.



The Node-Red also receive data from the Open Weather API by HTTP GET request.

An inject trigger is added to perform HTTP request for every certain interval.

HTTP request node is configured with URL we saved before.

IBM Watson IoT Platform

sec19ec035@sairamtap.edu.in  
ID: 04gt4e

Browse Action Device Types Interfaces Add Device

Event	Value	Format	Last Received
status	{"soil_moisture":66,"temperature":82,"humidity"...	json	a few seconds ago
status	{"soil_moisture":62,"temperature":-20,"humidity"...	json	a few seconds ago
status	{"soil_moisture":29,"temperature":43,"humidity"...	json	a few seconds ago
status	{"soil_moisture":80,"temperature":85,"humidity"...	json	a few seconds ago
status	{"soil_moisture":88,"temperature":105,"humidit...	json	a few seconds ago

> 23456 Disconnected esp32 Device 6 Nov 2022 15:56

Items per page 50 | 1-2 of 2 items

0 Simulations running

20:32 14-11-2022

## FLOW CHART:

