SPRINT 2

IBM Watson to IoT Platform, workflow for IoT scenarios using Node-red

Team ID	PNT2022TMID46724
Project Title	SmartFarmer - IoT Enabled Smart Farming Application

Python Output:

```
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 (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
 RESTART: C:\Users\kabilan\AppData\Local\Programs\Python\Python37\farming.py
2022-11-17 13:28:27,085   ibmiotf.device.Client      INFO    Connected successfu
lly: d:q9u3me:abimaneu:1234
Published, Soil_moisture = 19 % Temperature = -9 C Humidity = 14 % pH = 46 % o2
= 5 % to IBM Watson
Published, Soil_moisture = 25 % Temperature = 11 C Humidity = 8 % pH = 24 % o2 =
 37 % to IBM Watson
Published, Soil_moisture = 4 % Temperature = 35 C Humidity = 7 % pH = 118 % o2 =
 3 % to IBM Watson
```

IBM IoT connection information:

My credentials given to simulator are:

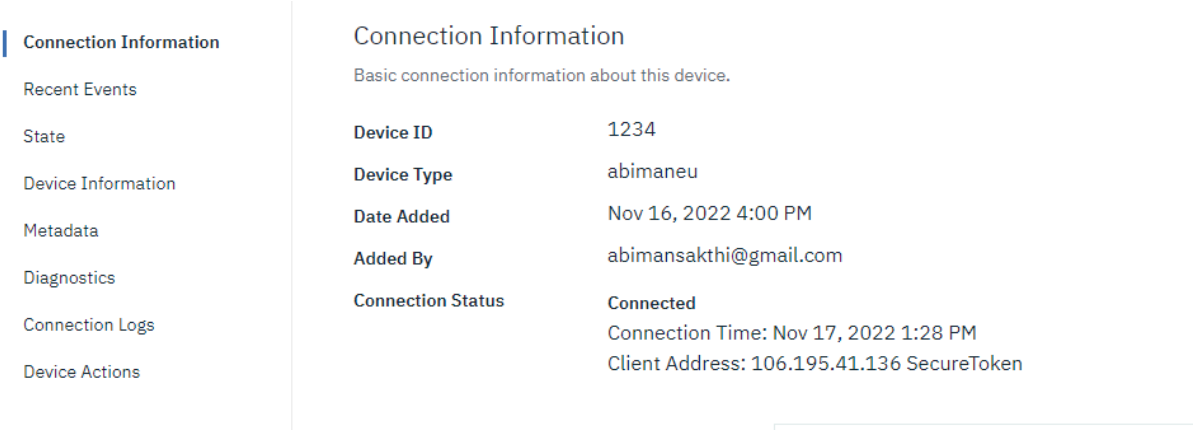
OrgID: **q9u3me**

API: **a-q9u3me-wjkxz829v5**

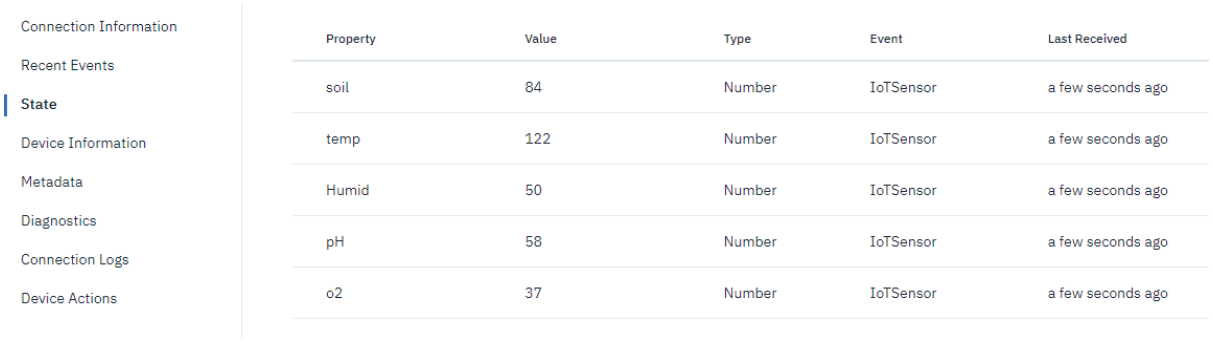
Device type: **abimaneu**

Device ID : **1234**

Device Token : **1234567890**

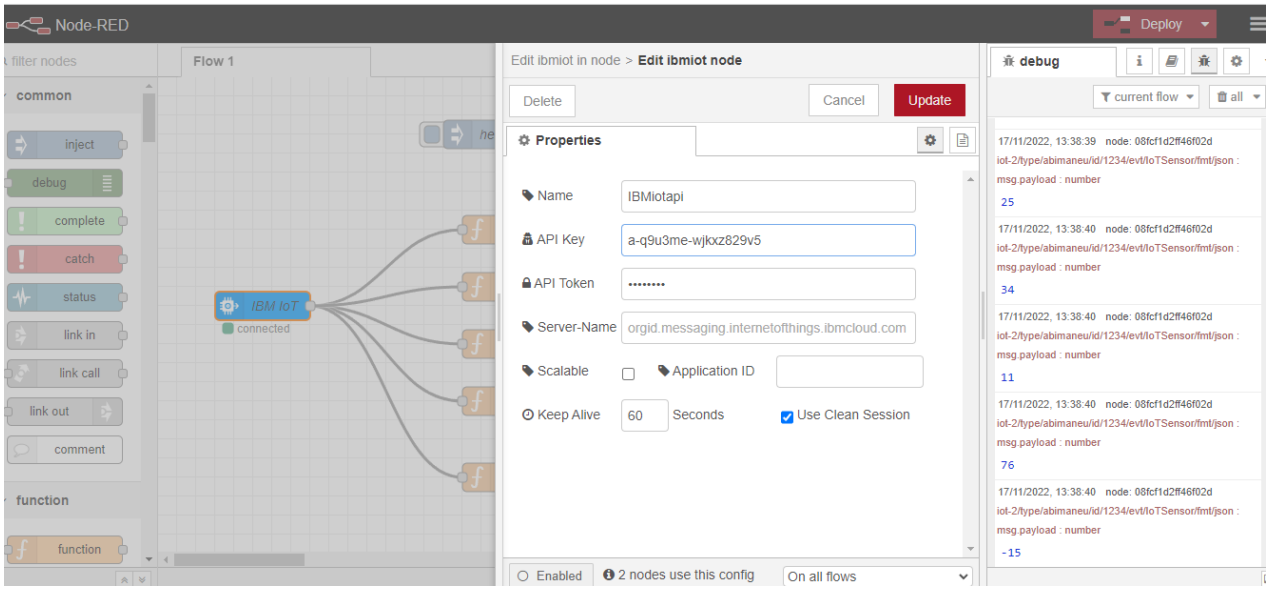


IBM Watson IoT Platform Output:

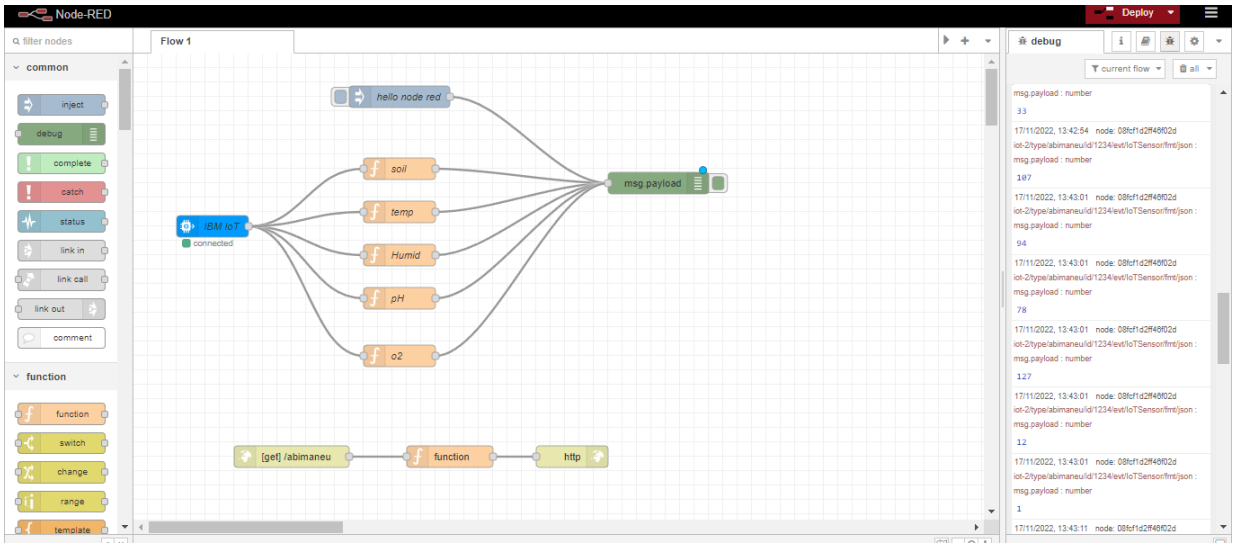


Configuration of Node-Red to send commands to IBM cloud

IBM IoT out node I used to send data from Node-Red to IBM Watson device. So, after adding it to the flow we need to configure it with credentials of our Watson device.



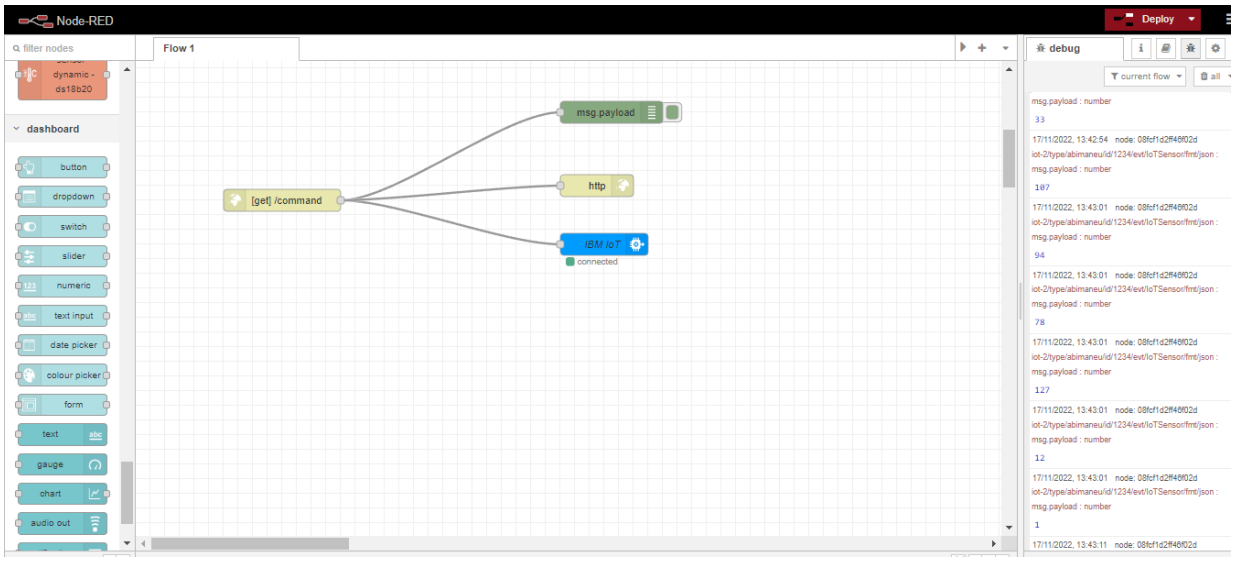
Connection of the Nodes to Analyse the Environmental Parameters.



We used a function node to analyses the data received and assign command to the each number.
The Java script code for the analyses is:

msg.payload = msg.payload.temp
global.set("t",msg.payload)
return msg;

Connection of the Nodes to Control the motor:



We used a function node to analyses the data received and assign command to turn ON or OFF the each number of buttons.
The Java script code for the analyses is:
if(msg.payload===1)
msg.payload={"command”:

“ON"}; else
if(msg.payload===0)
msg.payload={"command”:
“OFF"};