SPRINT 2

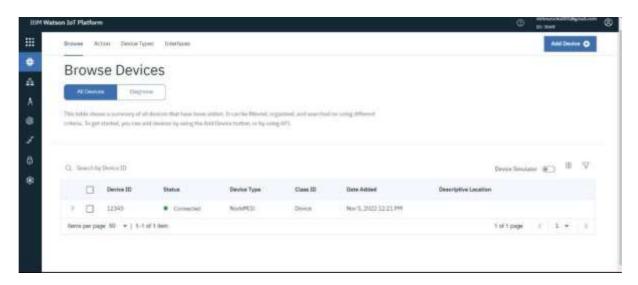
TEAM ID	PNT2022TMID018062
PROJECT NAME	Smart Farmer - IoT Enabled Smart Farming Application
Date	05 November 2022

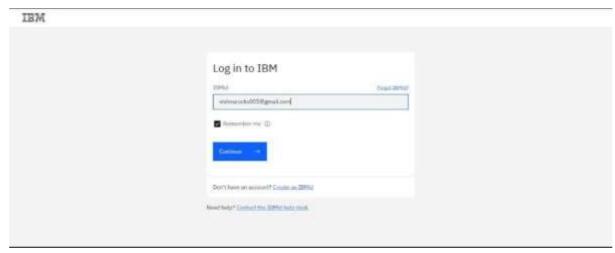
IBM WATSON CLOUD:

Give the credentials of your device in IBM Watson IoT Platform

Click on connect Device Id: 12345 Token: 12345678

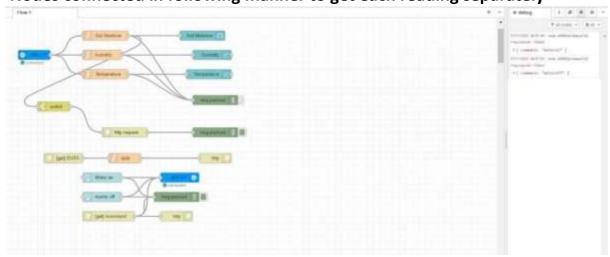






NODE - RED:

Nodes connected in following manner to get each reading separately



```
[{"id":"55532a3a9414ada1","type":"tab","label":"Flow
1","disabled":false,"info":"","env":[]},{"id":"dd8948acf63987d6","type":"ibmiot
in","z":"55532a3a9414ada1","authentication":"apiKey","apiKey":"64009416e5d88d75","inputTyp
e":"evt","logicalInterface":"","ruleId":"","deviceId":"12345","applicationId":"","deviceType":"No
deMCU","eventType":"+","commandType":"","format":"json","name":"IBM
IoT", "service": "registered", "allDevices": "", "allApplications": "", "allDeviceTypes": false, "allLogicalIn
terfaces":"","allEvents":true,"allCommands":"","allFormats":"","qos":0,"x":90,"y":200,"wires":[["
cc5ee96d1fe8c0ec","4640bf220608c2b5","8878c5a96c8bd6c7"]]},{"id":"cc5ee96d1fe8c0ec","type
":"function","z":"55532a3a9414ada1","name":"Soil
Moisture", "func": "global.set('moist', msg.payload.soil_moisture) \nmsg.payload=msg.payload.soil
_moisture\nreturn
msg;","outputs":1,"noerr":0,"initialize":"","finalize":"","libs":[],"x":330,"y":140,"wires":[["be4ecf
dbd3805c1c","234da12208d57a19","823ed8368aa8fa6a"]]},{"id":"4640bf220608c2b5","type":"fu
nction","z":"55532a3a9414ada1","name":"humidity","func":"global.set('hum',msg.payload.humi
dity)\nmsg.payload=msg.payload.humidity\nreturn
msg;","outputs":1,"noerr":0,"initialize":"","finalize":"","libs":[],"x":300,"y":200,"wires":[["42e41d
121e826584","234da12208d57a19"]]},{"id":"8878c5a96c8bd6c7","type":"function","z":"55532a3a
9414ada1","name":"Temperature","func":"global.set('temp',msg.payload.temperature)\nmsg.pa
yload=msg.payload.temperature\nreturn
msg;","outputs":1,"noerr":0,"initialize":"","finalize":"","libs":[],"x":310,"y":260,"wires":[["e006a1
f31e1084f2","234da12208d57a19"]]},{"id":"42e41d121e826584","type":"ui_chart","z":"55532a3a
9414ada1","name":"","group":"32c77595865857f1","order":1,"width":"0","height":"0","label":"
Humidity", "chartType": "line", "legend": "false", "xformat": "HH:mm:ss", "interpolate": "linear", "nod
ata":"","dot":false,"ymin":"","ymax":"","removeOlder":1,"removeOlderPoints":"","removeOlder
Unit":"3600","cutout":0,"useOneColor":false,"useUTC":false,"colors":["#1f77b4","#aec7e8","#ff7f
0e","#2ca02c","#98df8a","#d62728","#ff9896","#9467bd","#c5b0d5"],"outputs":1,"useDifferentC
olor":false,"x":640,"y":200,"wires":[[]]},{"id":"e006a1f31e1084f2","type":"ui_chart","z":"55532a3
a9414ada1","name":"","group":"32c77595865857f1","order":2,"width":"0","height":"0","label":"
Temperature", "chartType": "line", "legend": "false", "xformat": "HH:mm:ss", "interpolate": "linear", "
nodata":"","dot":false,"ymin":"","ymax":"","removeOlder":1,"removeOlderPoints":"","removeOl
derUnit":"3600","cutout":0,"useOneColor":false,"useUTC":false,"colors":["#1f77b4","#aec7e8","#
ff7f0e","#2ca02c","#98df8a","#d62728","#ff9896","#9467bd","#c5b0d5"],"outputs":1,"useDiffere
ntColor":false,"x":630,"y":260,"wires":[[]]},{"id":"be4ecfdbd3805c1c","type":"switch","z":"55532
a3a9414ada1","name":"","property":"payload","propertyType":"msg","rules":[{"t":"eq","v":"20"
,"vt":"str"}],"checkall":"true","repair":false,"outputs":1,"x":150,"y":360,"wires":[["6cc86205e442
77fb"]]},{"id":"0215325ab54b8d51","type":"debug","z":"55532a3a9414ada1","name":"","active":
true,"tosidebar":true,"console":false,"tostatus":false,"complete":"payload","targetType":"msg","
statusVal":"","statusType":"auto","x":650,"y":440,"wires":[]},{"id":"6cc86205e44277fb","type":"
http
request","z":"55532a3a9414ada1","name":"","method":"GET","ret":"txt","paytoqs":"ignore","url
":"https://www.fast2sms.com/dev/bulkV2?authorization=w3caxunBXmh5pO4KYsbdQEvAoS96UZ
7tegHiGIN0yflLWr8JkjXAbmHyVvoj5SJGMlls419xckpi0rwf&route=q&message=low%20soil%20moi
sture%20level&language=english&flash=1&numbers=8870252283","tls":"","persist":false,"proxy"
:"","authType":"","senderr":false,"x":370,"y":440,"wires":[["0215325ab54b8d51"]]},{"id":"234da
12208d57a19","type":"debug","z":"55532a3a9414ada1","name":"","active":false,"tosidebar":tru
e,"console":false,"tostatus":false,"complete":"false","statusVal":"","statusType":"auto","x":630,"
y":340,"wires":[]},{"id":"3ddbcc7ae9c17a4e","type":"function","z":"55532a3a9414ada1","name":
"data","func":"msg.payload = {\n \"temperature\":global.get('temp'),\n \"humidity\":
```

global.get('hum'),\n \"moisture\": global.get('moist')\n}\nreturn

```
msg;","outputs":1,"noerr":0,"initialize":"","finalize":"","libs":[],"x":370,"y":520,"wires":[["72cb90
bf9a4ea129"]]},{"id":"72cb90bf9a4ea129","type":"http
response","z":"55532a3a9414ada1","name":"","statusCode":"","headers":{},"x":650,"y":520,"wir
es":[]},{"id":"a32037baad643597","type":"http
in","z":"55532a3a9414ada1","name":"","url":"/DATA","method":"get","upload":false,"swaggerD
oc":"","x":180,"y":520,"wires":[["3ddbcc7ae9c17a4e"]]},{"id":"e9c894340e352161","type":"ui_bu
tton","z":"55532a3a9414ada1","name":"","group":"5a9be2a7.35e99c","order":0,"width":"3","hei
ght":"2","passthru":false,"label":"Motor
on","tooltip":"","color":"","bgcolor":"","icon":"","payload":"{\"command\":\"motoron\"}","payl
oadType":"json","topic":"","topicType":"str","x":300,"y":580,"wires":[["e00aec1775ab7ba1","af4
693e1abeca7a2"]]},{"id":"e00aec1775ab7ba1","type":"ibmiot
out","z":"55532a3a9414ada1","authentication":"apiKey","apiKey":"64009416e5d88d75","output
Type":"cmd","deviceId":"12345","deviceType":"NodeMCU","eventCommandType":"cmd","forma
t":"json","data":"data","qos":0,"name":"IBM
IoT","service":"registered","x":540,"y":580,"wires":[]},{"id":"436ec2969a88e928","type":"ui_butt
on","z":"55532a3a9414ada1","name":"","group":"5a9be2a7.35e99c","order":1,"width":"3","heig
ht":"2","passthru":false,"label":"mortor
off","tooltip":"","color":"","bgcolor":"","icon":"","payload":"{\"command\":\"motoroff\"}","payl
oadType":"json","topic":"topic","topicType":"str","x":300,"y":640,"wires":[["af4693e1abeca7a2",
"e00aec1775ab7ba1"]]},{"id":"af4693e1abeca7a2","type":"debug","z":"55532a3a9414ada1","na
me":"","active":true,"tosidebar":true,"console":false,"tostatus":false,"complete":"payload","targ
etType":"msg","statusVal":"","statusType":"auto","x":530,"y":640,"wires":[]},{"id":"dd8a9df81aa
ebedf","type":"http
in","z":"55532a3a9414ada1","name":"","url":"/command","method":"get","upload":false,"swag
gerDoc":"","x":320,"y":700,"wires":[["05c851ba0d5bf5de","af4693e1abeca7a2","e00aec1775ab7
ba1"]]},{"id":"05c851ba0d5bf5de","type":"http
response","z":"55532a3a9414ada1","name":"","statusCode":"","headers":{},"x":530,"y":700,"wir
es":[]},{"id":"823ed8368aa8fa6a","type":"ui_gauge","z":"55532a3a9414ada1","name":"","group"
:"2a4abd11.a253a2","order":0,"width":0,"height":0,"gtype":"gage","title":"Soil
Moisture","label":"units","format":"{{value}}","min":0,"max":"100","colors":["#00b500","#e6e60
0","#ca3838"],"seg1":"","seg2":"","x":650,"y":140,"wires":[]},{"id":"64009416e5d88d75","type":"
ibmiot","name":"API","keepalive":"60","serverName":"","cleansession":true,"appId":"","shared"
:false},{"id":"32c77595865857f1","type":"ui_group","name":"Default","tab":"5f4c2ea5.dc4e3","o
rder":3,"disp":true,"width":"6","collapse":false},{"id":"5a9be2a7.35e99c","type":"ui_group","na
me":"Default","tab":"5f4c2ea5.dc4e3","order":2,"disp":true,"width":"6","collapse":false},{"id":"2
a4abd11.a253a2","type":"ui_group","name":"Soil
moisture","tab":"513e92a0.840a9c","order":1,"disp":true,"width":"8","collapse":true},{"id":"5f4c
2ea5.dc4e3","type":"ui_tab","name":"Home","icon":"dashboard","disabled":false,"hidden":false
```

},{"id":"513e92a0.840a9c","type":"ui_tab","name":"Home","icon":"dashboard","order":1,"disabl

ed":false,"hidden":false}]