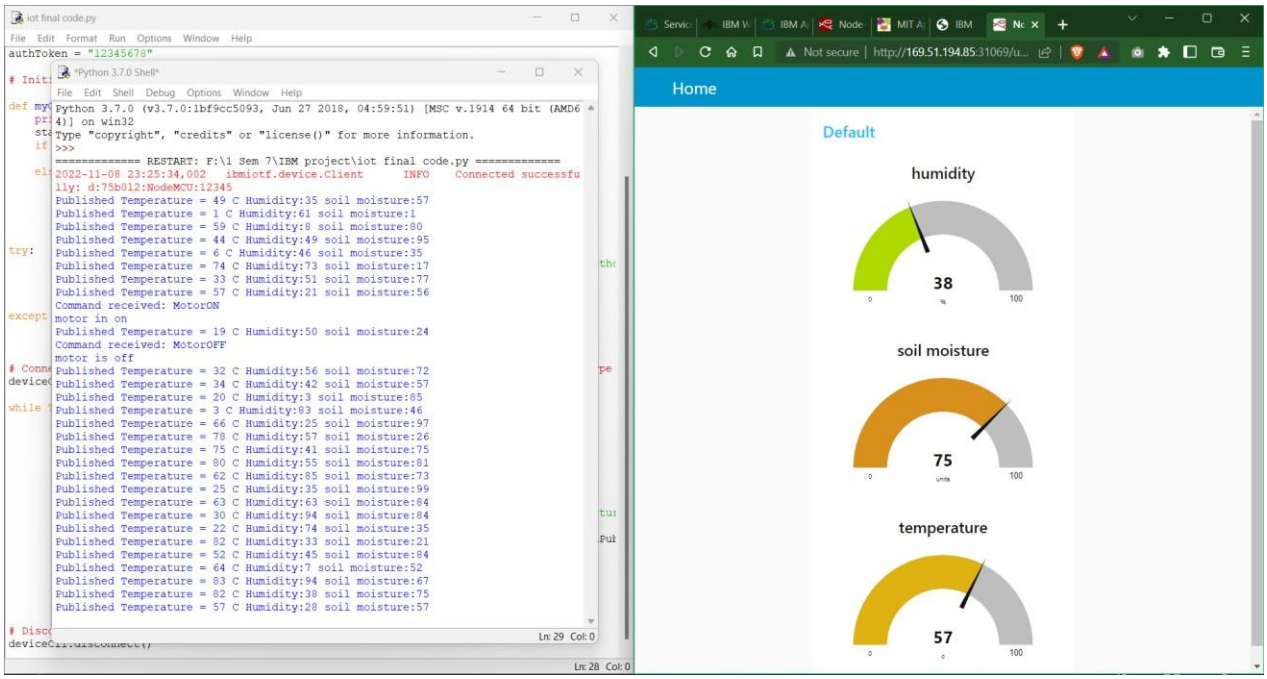
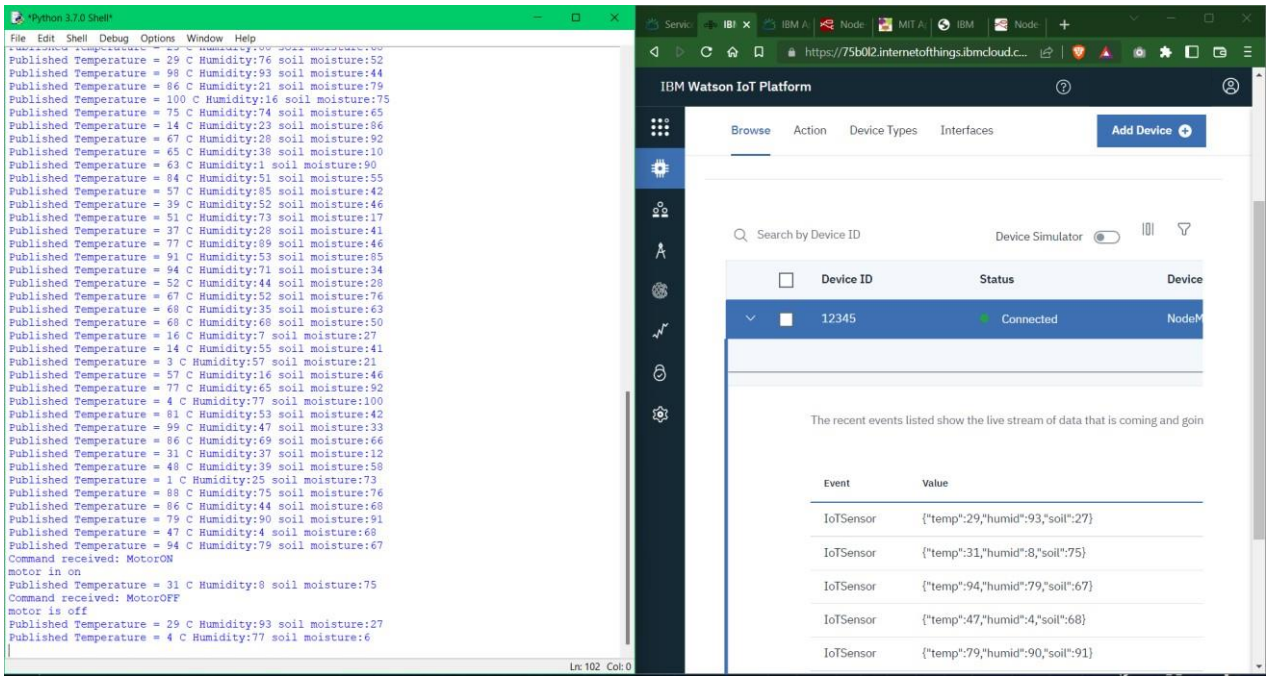
Develop a Mobile Application

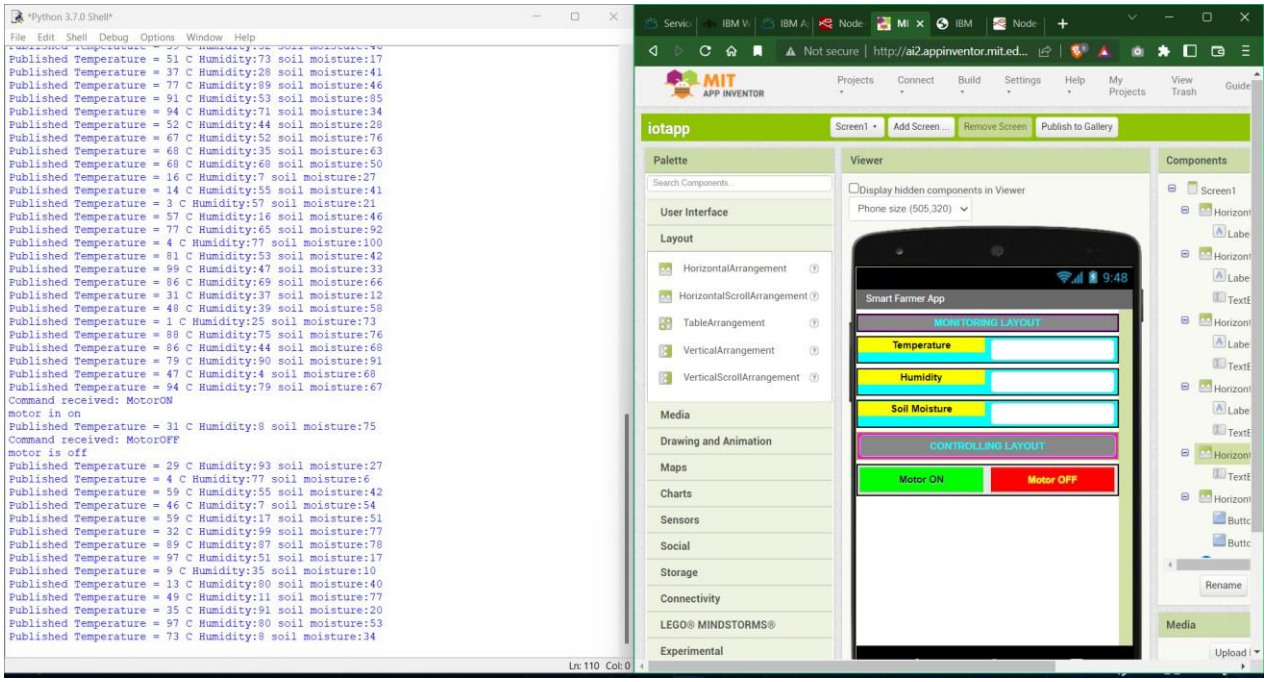
Team ID	PNT2022TMID20456
Project Name	Project – IOT ENABLED SMART FARMING

Objective:

To develop a mobile application to send the temperature, humidity, soil moisture values to the mobile app which was developed using MIT App Inventor and to turn on or off the motor in the field using the mobile app




Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Published Temperature = 29 C Humidity:76 soil moisture:52
Published Temperature = 98 C Humidity:93 soil moisture:44
Published Temperature = 86 C Humidity:21 soil moisture:79
Published Temperature = 100 C Humidity:16 soil moisture:75
Published Temperature = 75 C Humidity:74 soil moisture:65
Published Temperature = 14 C Humidity:23 soil moisture:86
Published Temperature = 67 C Humidity:28 soil moisture:92
Published Temperature = 65 C Humidity:38 soil moisture:10
Published Temperature = 63 C Humidity:1 soil moisture:90
Published Temperature = 84 C Humidity:51 soil moisture:55
Published Temperature = 57 C Humidity:85 soil moisture:42
Published Temperature = 39 C Humidity:52 soil moisture:46
Published Temperature = 51 C Humidity:73 soil moisture:17
Published Temperature = 37 C Humidity:28 soil moisture:41
Published Temperature = 77 C Humidity:89 soil moisture:46
Published Temperature = 91 C Humidity:53 soil moisture:85
Published Temperature = 94 C Humidity:71 soil moisture:34
Published Temperature = 52 C Humidity:44 soil moisture:28
Published Temperature = 67 C Humidity:52 soil moisture:76
Published Temperature = 68 C Humidity:35 soil moisture:63
Published Temperature = 68 C Humidity:68 soil moisture:50
Published Temperature = 16 C Humidity:7 soil moisture:27
Published Temperature = 14 C Humidity:55 soil moisture:41
Published Temperature = 3 C Humidity:57 soil moisture:21
Published Temperature = 57 C Humidity:16 soil moisture:46
Published Temperature = 77 C Humidity:65 soil moisture:92
Published Temperature = 4 C Humidity:77 soil moisture:100
Published Temperature = 81 C Humidity:53 soil moisture:42
Published Temperature = 99 C Humidity:47 soil moisture:33
Published Temperature = 86 C Humidity:69 soil moisture:66
Published Temperature = 31 C Humidity:37 soil moisture:12
Published Temperature = 48 C Humidity:39 soil moisture:58
Published Temperature = 1 C Humidity:25 soil moisture:73
Published Temperature = 88 C Humidity:75 soil moisture:76
Published Temperature = 86 C Humidity:44 soil moisture:68
Published Temperature = 79 C Humidity:90 soil moisture:91
Published Temperature = 47 C Humidity:4 soil moisture:68
Published Temperature = 94 C Humidity:79 soil moisture:67
Command received: MotorON
motor in on
Published Temperature = 31 C Humidity:8 soil moisture:75
Command received: MotorOFF
motor is off
Published Temperature = 29 C Humidity:93 soil moisture:27
Published Temperature = 4 C Humidity:77 soil moisture:6
Ln: 102 Col: 0
https://75b0l2.internetofthings.ibmcloud.c...
IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Add Device
Search by Device ID
Device Simulator
Device ID
Status
Device
12345
Connected
The recent events listed show the live stream of data that is coming and goin
Event
Value
IoTSensor
{"temp":29,"humid":93,"soil":27}
IoTSensor
{"temp":31,"humid":8,"soil":75}
IoTSensor
{"temp":94,"humid":79,"soil":67}
IoTSensor
{"temp":47,"humid":4,"soil":68}
IoTSensor
{"temp":79,"humid":90,"soil":91}


Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Published Temperature = 51 C Humidity:73 soil moisture:17
Published Temperature = 37 C Humidity:28 soil moisture:41
Published Temperature = 77 C Humidity:89 soil moisture:46
Published Temperature = 91 C Humidity:53 soil moisture:85
Published Temperature = 94 C Humidity:71 soil moisture:34
Published Temperature = 52 C Humidity:44 soil moisture:28
Published Temperature = 67 C Humidity:52 soil moisture:76
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Published Temperature = 68 C Humidity:68 soil moisture:50
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Published Temperature = 77 C Humidity:65 soil moisture:92
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Published Temperature = 99 C Humidity:47 soil moisture:33
Published Temperature = 86 C Humidity:69 soil moisture:66
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Published Temperature = 48 C Humidity:39 soil moisture:58
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Published Temperature = 88 C Humidity:75 soil moisture:76
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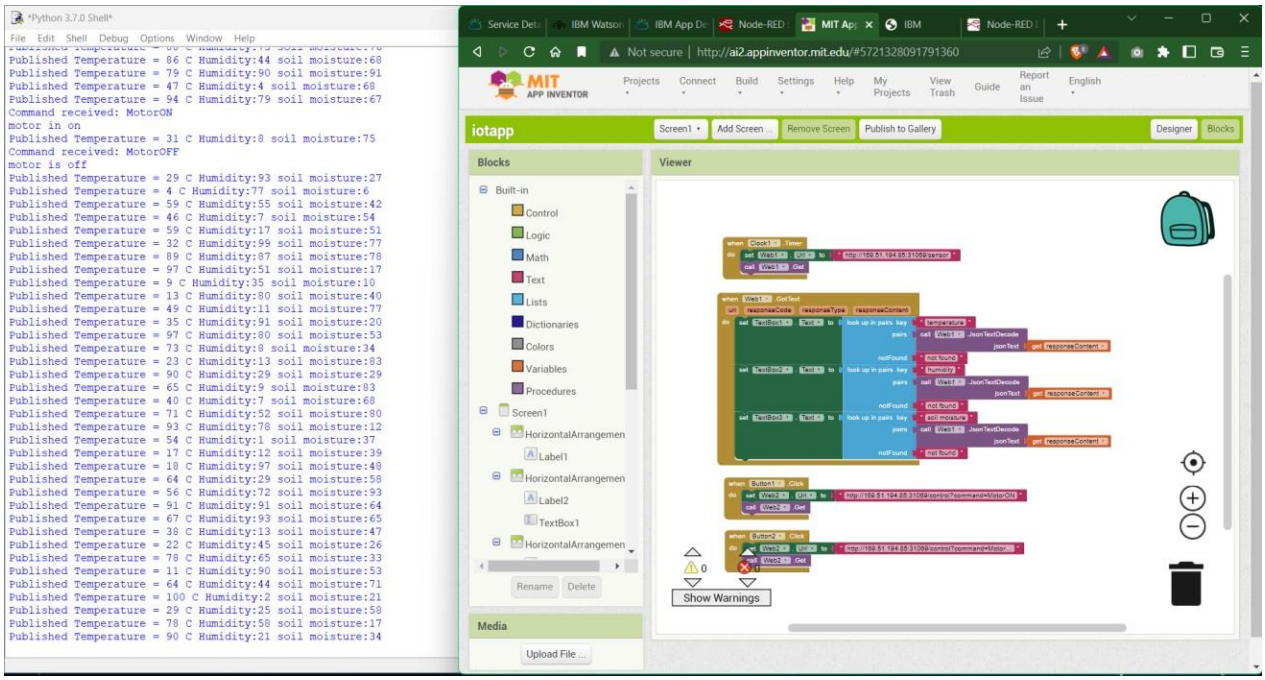
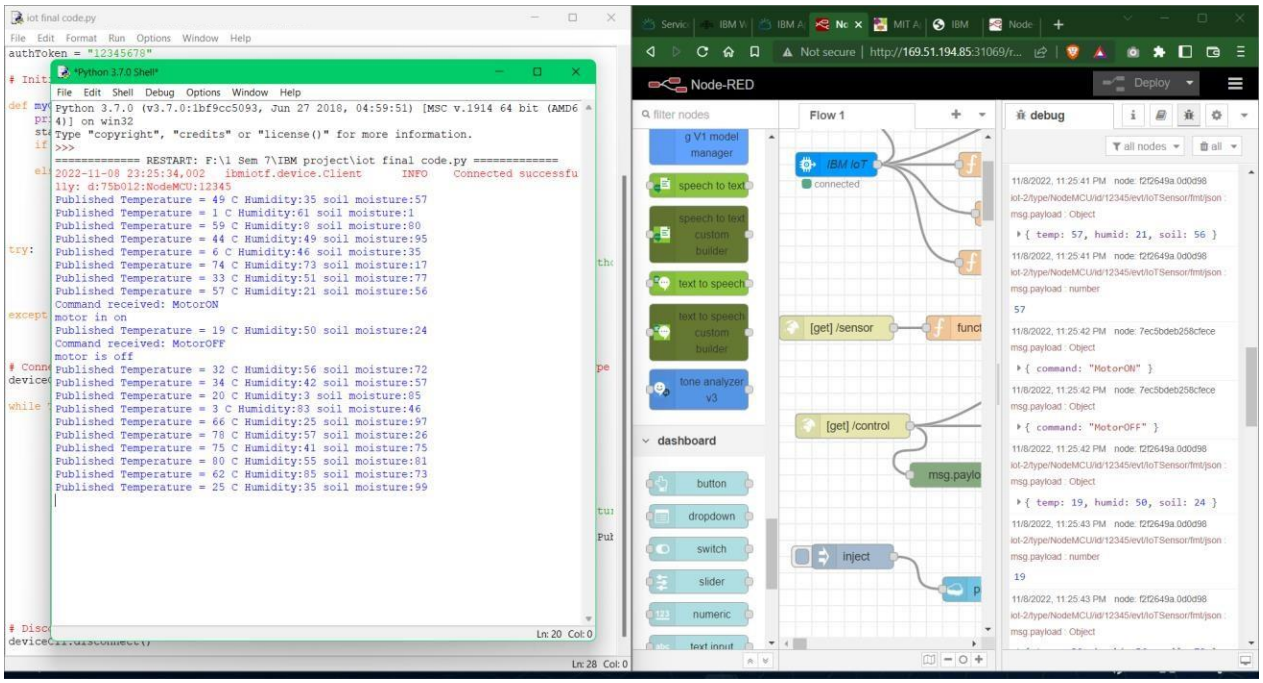
Published Temperature = 94 C Humidity:79 soil moisture:67
Command received: MotorON
motor in on
Published Temperature = 31 C Humidity:8 soil moisture:75
Command received: MotorOFF
motor is off
Published Temperature = 29 C Humidity:93 soil moisture:27
Published Temperature = 4 C Humidity:77 soil moisture:6
Published Temperature = 59 C Humidity:55 soil moisture:42
Published Temperature = 46 C Humidity:7 soil moisture:54
Published Temperature = 59 C Humidity:17 soil moisture:51
Published Temperature = 32 C Humidity:99 soil moisture:77
Published Temperature = 89 C Humidity:87 soil moisture:78
Published Temperature = 97 C Humidity:51 soil moisture:17
Published Temperature = 9 C Humidity:35 soil moisture:10
Published Temperature = 13 C Humidity:80 soil moisture:40
Published Temperature = 49 C Humidity:11 soil moisture:77
Published Temperature = 35 C Humidity:91 soil moisture:20
Published Temperature = 97 C Humidity:80 soil moisture:53
Published Temperature = 73 C Humidity:8 soil moisture:34
Ln: 110 Col: 0
Not secure | http://ai2.appinventor.mit.ed...
MIT APP INVENTOR
Projects
Connect
Build
Settings
Help
My Projects
View Trash
iotapp
Screen1
Add Screen ...
Remove Screen
Publish to Gallery
Palette
Search Components...
User Interface
Layout
HorizontalArrangement
HorizontalScrollArrangement
TableArrangement
VerticalArrangement
VerticalScrollArrangement
Media
Drawing and Animation
Maps
Charts
Sensors
Social
Storage
Connectivity
LEGO® MINDSTORMS®
Experimental
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
Smart Farmer App
MONITORING LAYOUT
Temperature
Humidity
Soil Moisture
CONTROLLING LAYOUT
Motor ON
Motor OFF
Components
Screen1
Rename
Media
Upload


Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Published Temperature = 86 C Humidity:44 soil moisture:68
Published Temperature = 79 C Humidity:90 soil moisture:91
Published Temperature = 47 C Humidity:4 soil moisture:68
Published Temperature = 94 C Humidity:79 soil moisture:67
Command received: MotorON
motor in on
Published Temperature = 31 C Humidity:8 soil moisture:75
Command received: MotorOFF
motor is off
Published Temperature = 29 C Humidity:93 soil moisture:27
Published Temperature = 4 C Humidity:77 soil moisture:6
Published Temperature = 59 C Humidity:55 soil moisture:42
Published Temperature = 46 C Humidity:7 soil moisture:54
Published Temperature = 59 C Humidity:17 soil moisture:51
Published Temperature = 32 C Humidity:99 soil moisture:77
Published Temperature = 89 C Humidity:87 soil moisture:78
Published Temperature = 97 C Humidity:51 soil moisture:17
Published Temperature = 9 C Humidity:35 soil moisture:10
Published Temperature = 13 C Humidity:80 soil moisture:40
Published Temperature = 49 C Humidity:11 soil moisture:77
Published Temperature = 35 C Humidity:91 soil moisture:20
Published Temperature = 97 C Humidity:80 soil moisture:53
Published Temperature = 73 C Humidity:8 soil moisture:34
Published Temperature = 23 C Humidity:13 soil moisture:83
Published Temperature = 90 C Humidity:29 soil moisture:29
Published Temperature = 65 C Humidity:9 soil moisture:83
Published Temperature = 40 C Humidity:7 soil moisture:68
Published Temperature = 71 C Humidity:52 soil moisture:80
Published Temperature = 93 C Humidity:78 soil moisture:12
Published Temperature = 54 C Humidity:1 soil moisture:37
Published Temperature = 17 C Humidity:12 soil moisture:39
Published Temperature = 18 C Humidity:97 soil moisture:48
Published Temperature = 64 C Humidity:29 soil moisture:58
Published Temperature = 56 C Humidity:72 soil moisture:93
Published Temperature = 91 C Humidity:91 soil moisture:64
Published Temperature = 67 C Humidity:93 soil moisture:65
Published Temperature = 38 C Humidity:13 soil moisture:47
Published Temperature = 22 C Humidity:45 soil moisture:26
Published Temperature = 78 C Humidity:65 soil moisture:33
Published Temperature = 11 C Humidity:90 soil moisture:53
Published Temperature = 64 C Humidity:44 soil moisture:71
Published Temperature = 100 C Humidity:2 soil moisture:21
Published Temperature = 29 C Humidity:25 soil moisture:58
Published Temperature = 78 C Humidity:58 soil moisture:17
Published Temperature = 90 C Humidity:21 soil moisture:34
Not secure | http://ai2.appinventor.mit.edu/#5721328091791360
MIT APP INVENTOR
Projects Connect Build Settings Help My Projects View Trash Guide Report an Issue English
iotapp
Screen1 Add Screen ... Remove Screen Publish to Gallery
Designer Blocks
Blocks
Built-in
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen1
HorizontalArrangemen
Label1
HorizontalArrangemen
Label2
TextBox1
HorizontalArrangemen
Rename Delete
Media
Upload File ...
Viewer
Show Warnings


iot final code.py
File Edit Format Run Options Window Help
authToken = "12345678"
Python 3.7.0 Shell
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 (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: F:\1 Sem 7\IBM project\iot final code.py ==========
2022-11-08 23:25:34,002 ibmiotf.device.Client INFO Connected successfully: d:75b012:NodeMCU:12345
Published Temperature = 49 C Humidity:35 soil moisture:57
Published Temperature = 1 C Humidity:61 soil moisture:1
Published Temperature = 59 C Humidity:8 soil moisture:80
Published Temperature = 44 C Humidity:49 soil moisture:95
Published Temperature = 6 C Humidity:46 soil moisture:35
Published Temperature = 74 C Humidity:73 soil moisture:17
Published Temperature = 33 C Humidity:51 soil moisture:77
Published Temperature = 57 C Humidity:21 soil moisture:56
Command received: MotorON
motor in on
Published Temperature = 19 C Humidity:50 soil moisture:24
Command received: MotorOFF
motor is off
Published Temperature = 32 C Humidity:56 soil moisture:72
Published Temperature = 34 C Humidity:42 soil moisture:57
Published Temperature = 20 C Humidity:3 soil moisture:85
Published Temperature = 3 C Humidity:83 soil moisture:46
Published Temperature = 66 C Humidity:25 soil moisture:97
Published Temperature = 78 C Humidity:57 soil moisture:26
Published Temperature = 75 C Humidity:41 soil moisture:75
Published Temperature = 80 C Humidity:55 soil moisture:81
Published Temperature = 62 C Humidity:85 soil moisture:73
Published Temperature = 25 C Humidity:35 soil moisture:99
Ln: 20 Col: 0
Ln: 28 Col: 0
Not secure | http://169.51.194.85:31069/r...
Node-RED
Deploy
filter nodes
Flow 1
debug
all nodes
all
g V1 model manager
speech to text
speech to text custom builder
text to speech
text to speech custom builder
tone analyzer v3
dashboard
button
dropdown
switch
slider
numeric
IBM IoT
connected
[get] /sensor
[get] /control
inject
11/8/2022, 11:25:41 PM node: f2f2649a.0d0d98
iot-2/type/NodeMCU/id/12345/evt/IoTSensor/fmt/json : msg.payload : Object
{ temp: 57, humid: 21, soil: 56 }
11/8/2022, 11:25:41 PM node: f2f2649a.0d0d98
iot-2/type/NodeMCU/id/12345/evt/IoTSensor/fmt/json : msg.payload : number
57
11/8/2022, 11:25:42 PM node: 7ec5bdeb258cfece
msg.payload : Object
{ command: "MotorON" }
11/8/2022, 11:25:42 PM node: 7ec5bdeb258cfece
msg.payload : Object
{ command: "MotorOFF" }
11/8/2022, 11:25:42 PM node: f2f2649a.0d0d98
iot-2/type/NodeMCU/id/12345/evt/IoTSensor/fmt/json : msg.payload : Object
{ temp: 19, humid: 50, soil: 24 }
11/8/2022, 11:25:43 PM node: f2f2649a.0d0d98
iot-2/type/NodeMCU/id/12345/evt/IoTSensor/fmt/json : msg.payload : number
19
11/8/2022, 11:25:43 PM node: f2f2649a.0d0d98
iot-2/type/NodeMCU/id/12345/evt/IoTSensor/fmt/json : msg.payload : Object