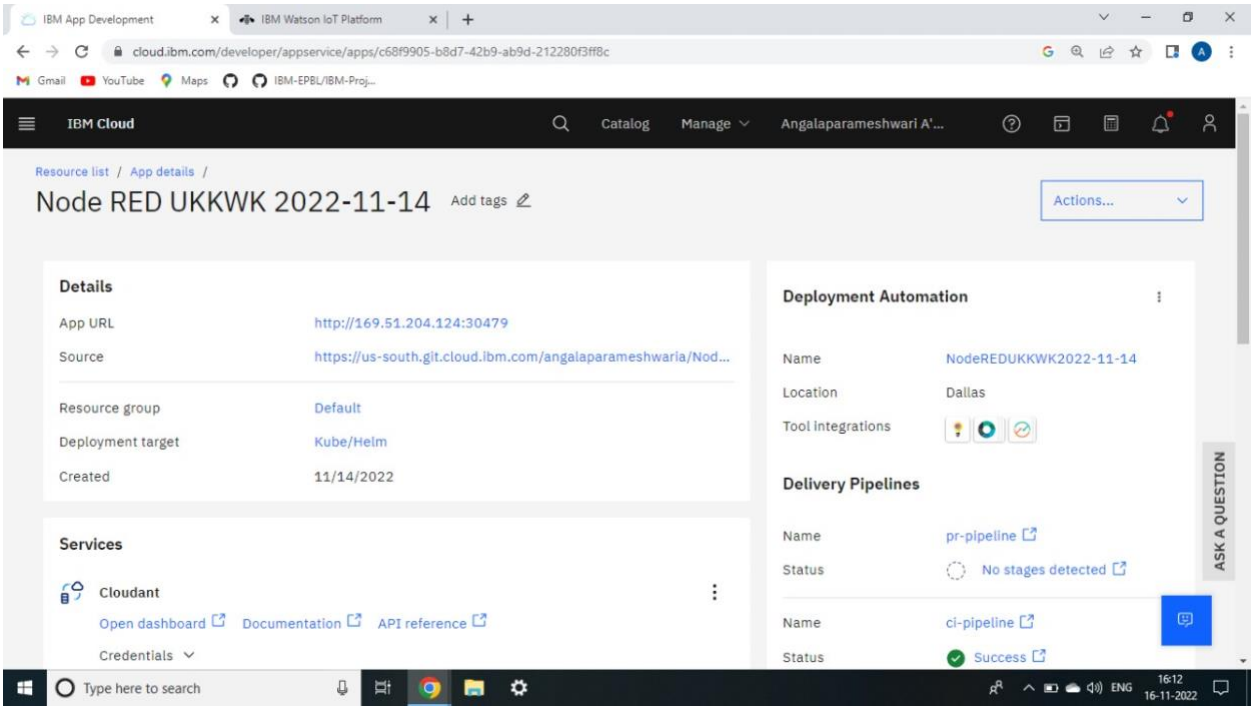
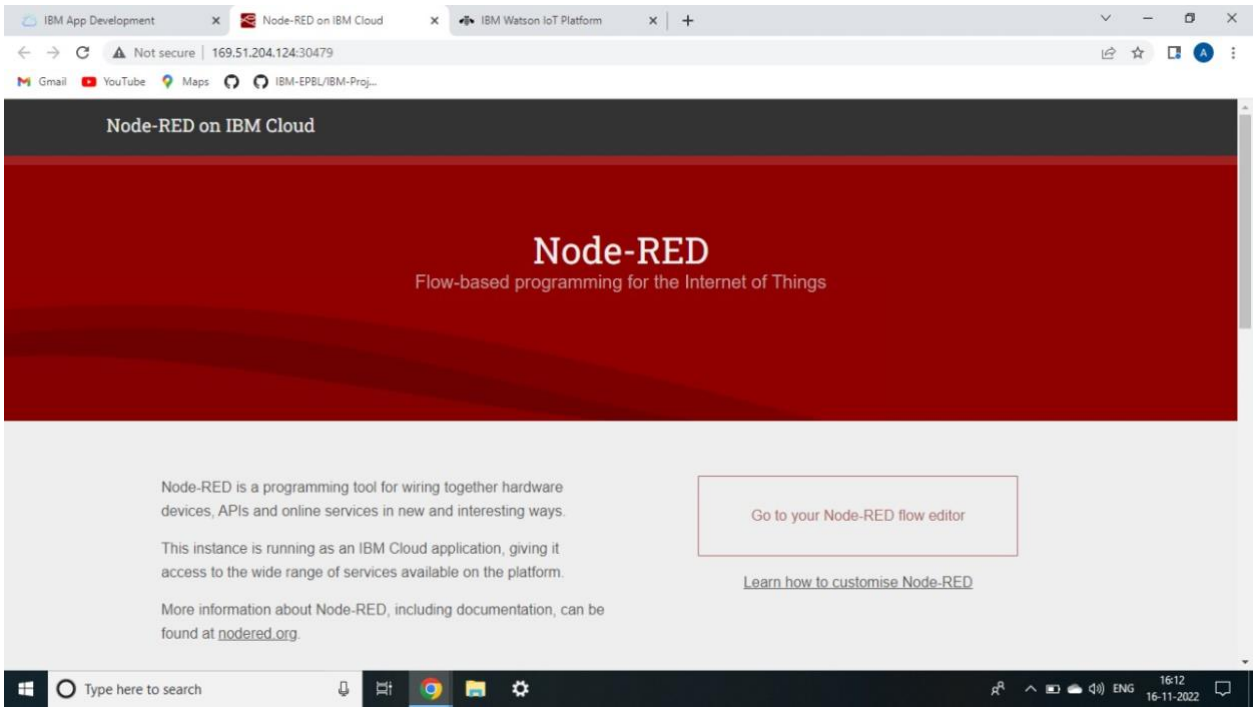
DEVELOP A WEB APPLICATION USING NODE – RED SERVICE

Team ID:PNT2022TMID45173

Create Node – Red Service:




IBM App Development
Node-RED on IBM Cloud
IBM Watson IoT Platform
Not secure | 169.51.204.124:30479
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Maps
IBM-EPBL/IBM-Proj...
Node-RED on IBM Cloud
Node-RED
Flow-based programming for the Internet of Things
Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.
This instance is running as an IBM Cloud application, giving it access to the wide range of services available on the platform.
More information about Node-RED, including documentation, can be found at nodered.org.
Go to your Node-RED flow editor
Learn how to customise Node-RED
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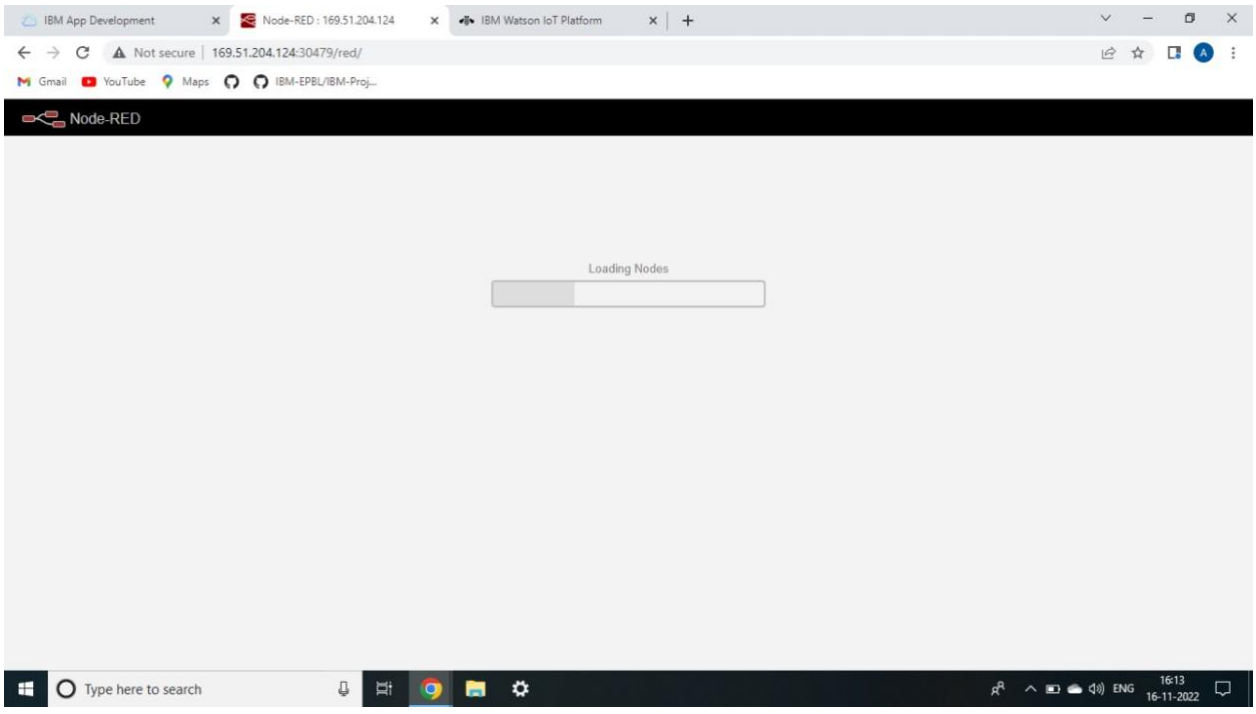
ENG
16:12
16-11-2022


IBM App Development
Node-RED : 169.51.204.124
IBM Watson IoT Platform
Not secure | 169.51.204.124:30479/red/
Gmail
YouTube
Maps
IBM-EPBL/IBM-Proj...
Node-RED
Loading Nodes
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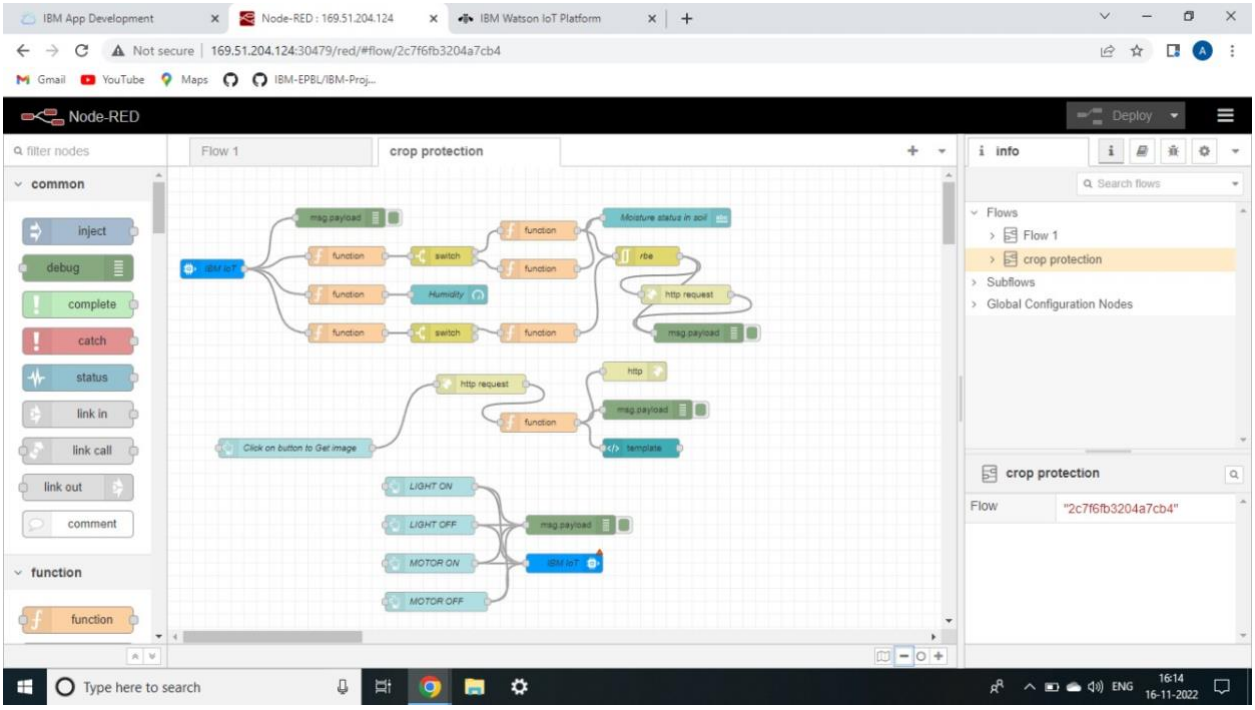
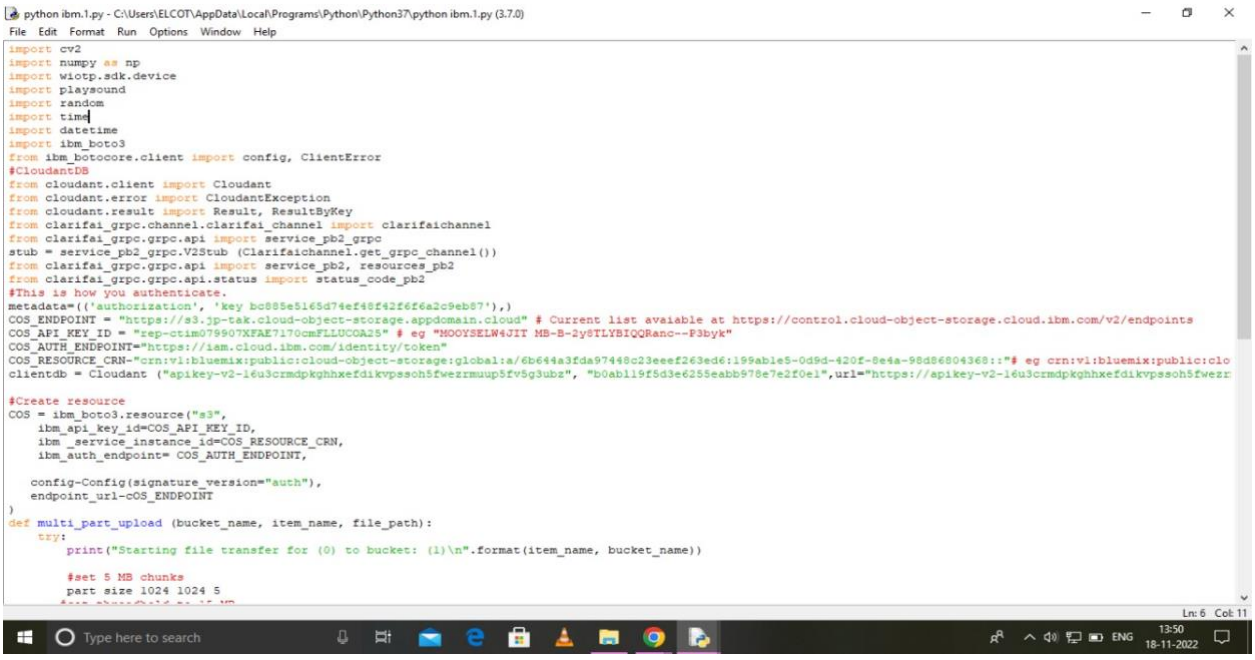
16-11-2022

Develop A Web Application Using Node – RED Service:





python ibm.1.py - C:\Users\ELCOT\AppData\Local\Programs\Python\Python37\python ibm.1.py (3.7.0)

File Edit Format Run Options Window Help

```
        #set 5 MB chunks
        part size 1024 1024 5
       #set threadhold to 15 MB
       file threshold 1024 1024 *15
       #set the transfer threshold and chunk size
      transfer_config= ibm boto3.s3.transfer.Transferconfig(
        multipart threshold-file_threshold,
        multipart chunksize-part_size
     )
     #the upload fileob) method will automatically execute a multi-part upload
     #in 5 chunks for all files over 15 MB
     with open(file_path, "b") as file data:
        cos.Object (bucket_name, item_name).upload_fileobj(1
        fileobj=file_data
        confug=transfer_config
        )
    print("Transfer for {0} Complete!\n".format(item_name))
     except clientError as be:
       print ("CLIENT ERROR: {0}\n".format(be))
       except Exception as e:
     print("Unable to complete multi-part upload: {0}".format{e}}
def myCommandCallback(cmd):
      print ("Command received:%s"% cmd.data)
      command-cmd.data['command]
       print (command)
      if(command lighton'):
        print('lighton')
       elif (command lightoff'):
      print ('lightoff')
      elif (command=='motoroff'):
      print ('motoroff")
myConfig={
        "identity":{
       "orgId": "rvp7mx",
       "typeid": "NodeMCU",
       "deviceId": "12345"
}
    "auth": {
    "token":"12345678"
    }
```

Ln: 74 Col: 22

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python ibm final.py - C:\Users\ELCOT\Documents\python ibm final.py (3.7.0)

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```
import wiotp.sdk.device
import time
import os
import datetime
import random
myConfig = {
   "identity": {
       "orgId": "rvp7mx",
       "typeId": "NodeMCU",
       "deviceId": "12345"
   },
   "auth": {
       "token": "12345678"
   }
}
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect ()

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 (" ")

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
client.disconnect ()
```

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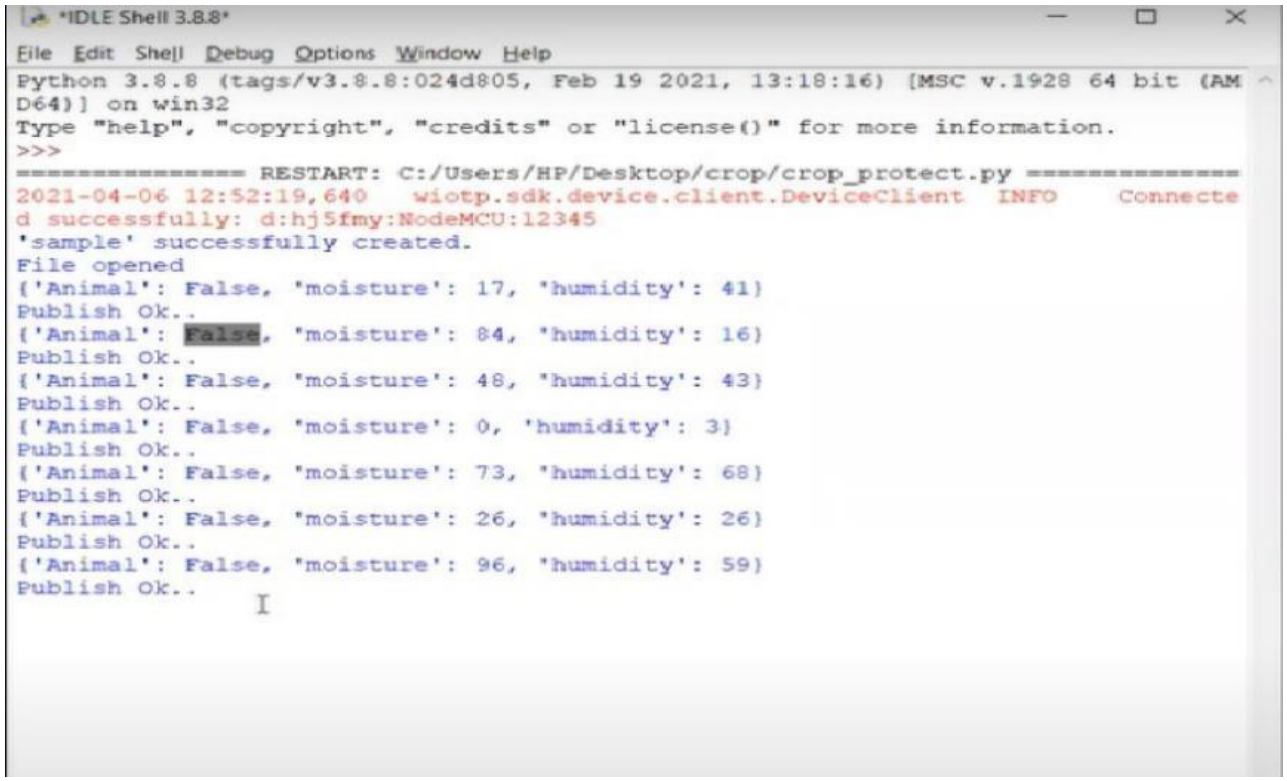
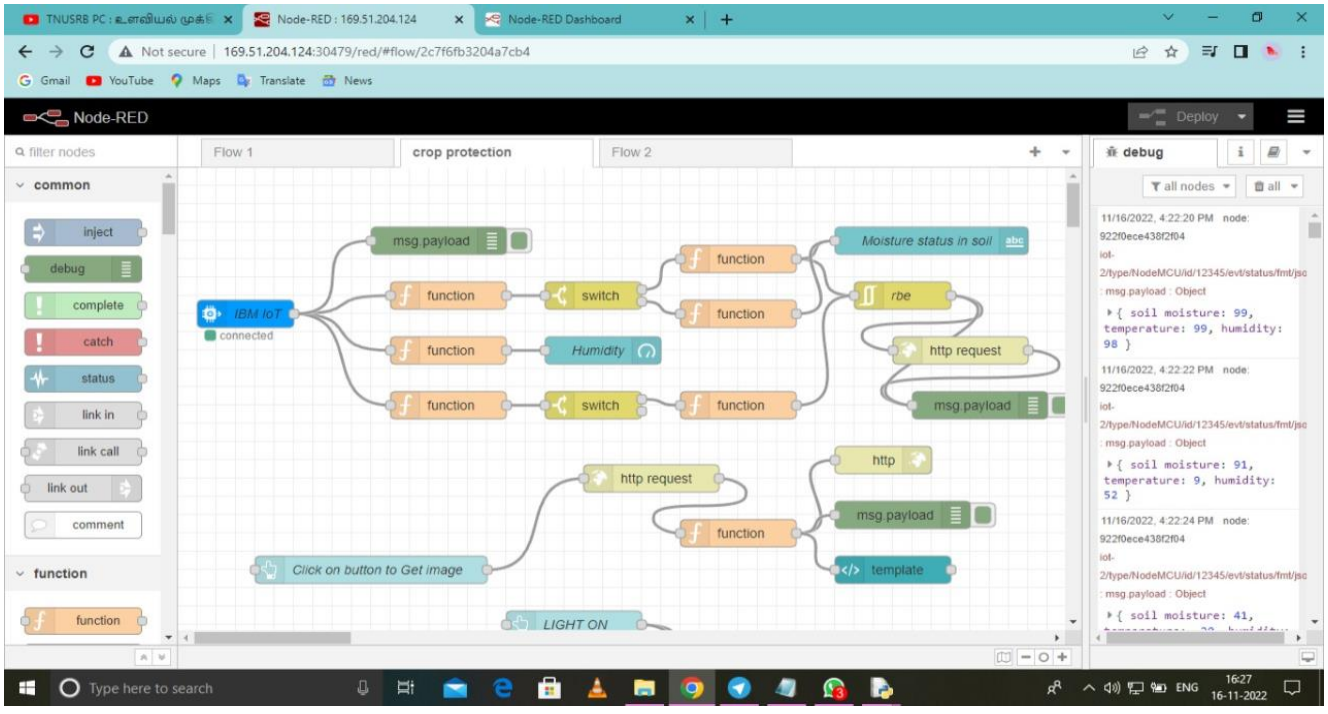

IDLE Shell 3.8.8
File Edit Shell Debug Options Window Help
Python 3.8.8 (tags/v3.8.8:024d805, Feb 19 2021, 13:18:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:/Users/HP/Desktop/crop/crop_protect.py ==========
2021-04-06 12:52:19,640 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:hj5fmy:NodeMCU:12345
'sample' successfully created.
File opened
{'Animal': False, 'moisture': 17, 'humidity': 41}
Publish Ok..
{'Animal': False, 'moisture': 84, 'humidity': 16}
Publish Ok..
{'Animal': False, 'moisture': 48, 'humidity': 43}
Publish Ok..
{'Animal': False, 'moisture': 0, 'humidity': 3}
Publish Ok..
{'Animal': False, 'moisture': 73, 'humidity': 68}
Publish Ok..
{'Animal': False, 'moisture': 26, 'humidity': 26}
Publish Ok..
{'Animal': False, 'moisture': 96, 'humidity': 59}
Publish Ok..


Node-RED : 169.51.204.124
Node-RED Dashboard
Not secure | 169.51.204.124:30479/red/#flow/2c7f6fb3204a7cb4
Node-RED
Deploy
Flow 1
crop protection
Flow 2
debug
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
msg.payload
function
switch
IBM IoT
connected
Humidity
Moisture status in soil
rbe
http request
http
template
Click on button to Get image
LIGHT ON
{ soil moisture: 99, temperature: 99, humidity: 98 }
{ soil moisture: 91, temperature: 9, humidity: 52 }
{ soil moisture: 41,
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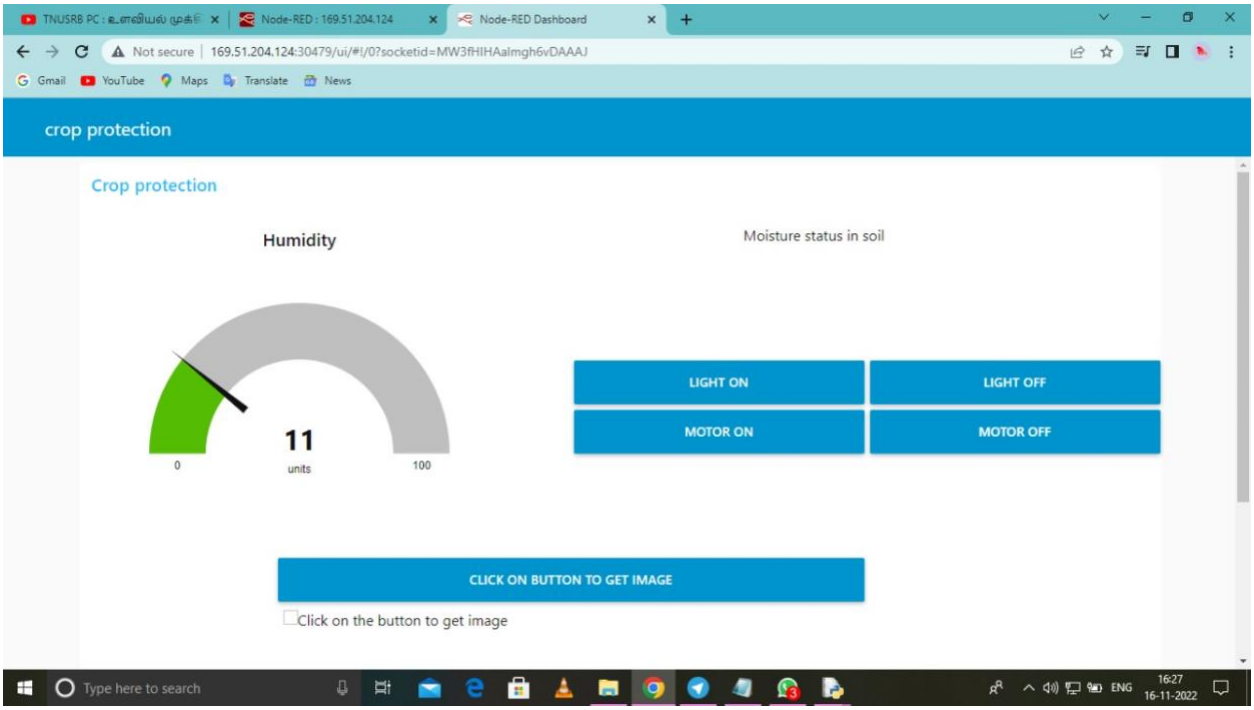
16-11-2022


Node-RED : 169.51.204.124
Node-RED Dashboard
Not secure | 169.51.204.124:30479/ui/#!/0?socketid=MW3fHIHAaImgh6vDAAAJ
Gmail
YouTube
Maps
Translate
News
crop protection
Crop protection
Humidity
11
units
0
100
Moisture status in soil
LIGHT ON
LIGHT OFF
MOTOR ON
MOTOR OFF
CLICK ON BUTTON TO GET IMAGE
Click on the button to get image
Type here to search
ENG
16-27
16-11-2022