http://watson-iot-sensor-simulator.mybluemix.net/

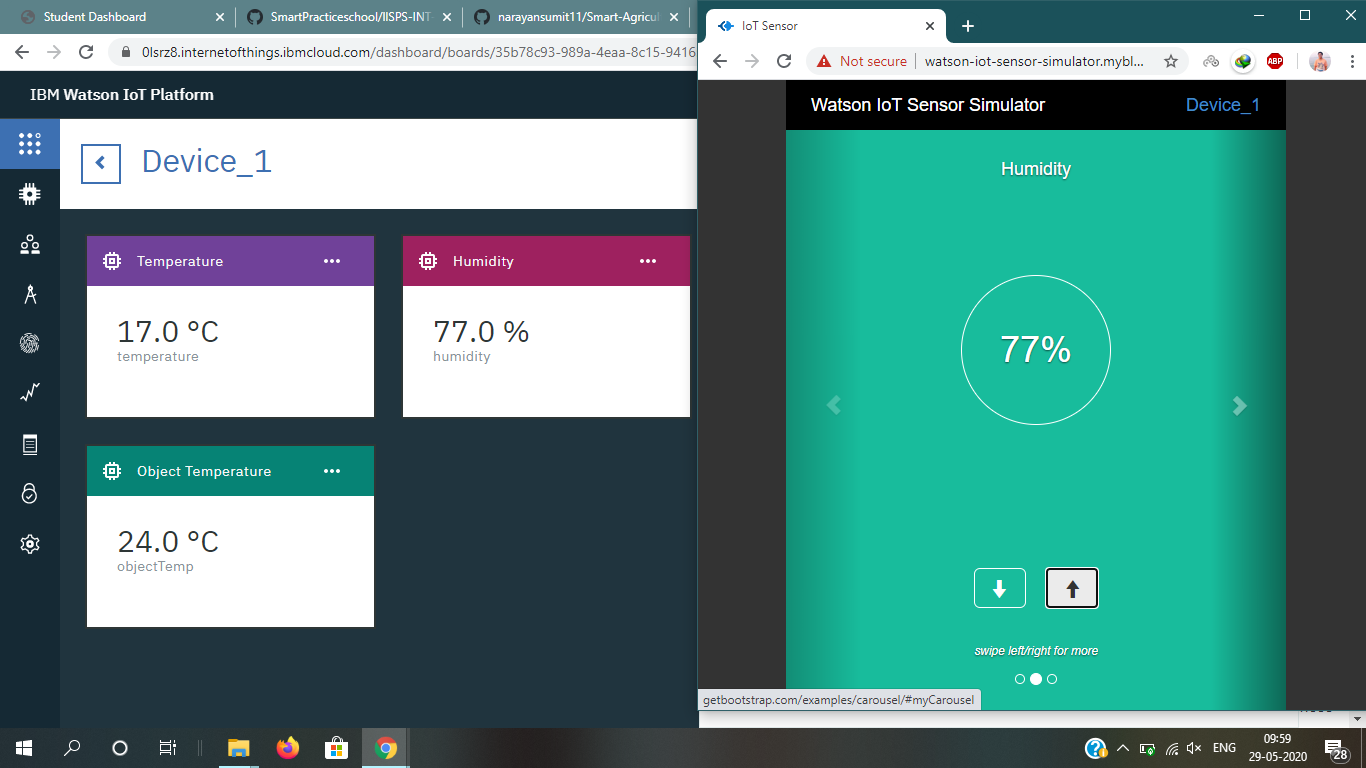
Example:

Org Id: 0lsrz8

Device Type: SMART FARMER

Device Id: Device\_1

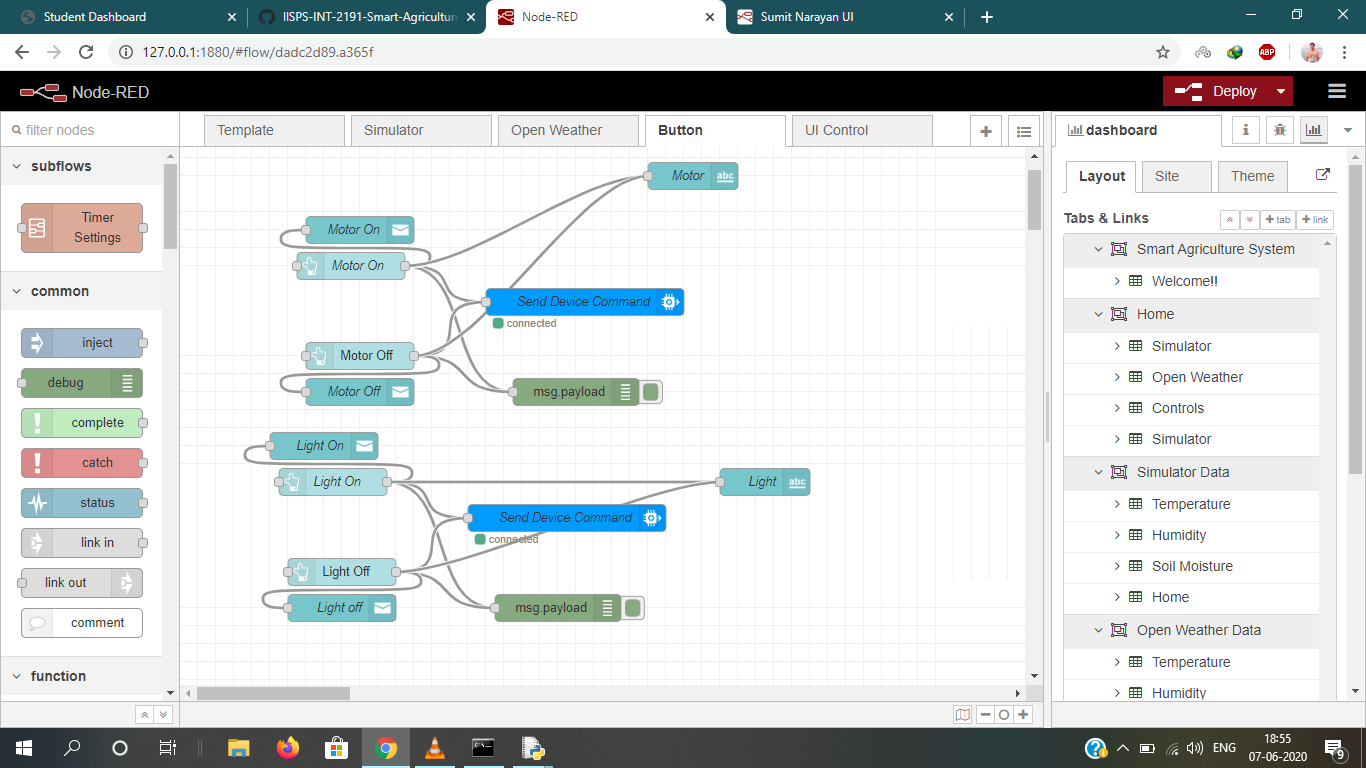
Device Token: S\*\*\*\*@\*\*\*



NODE RED :

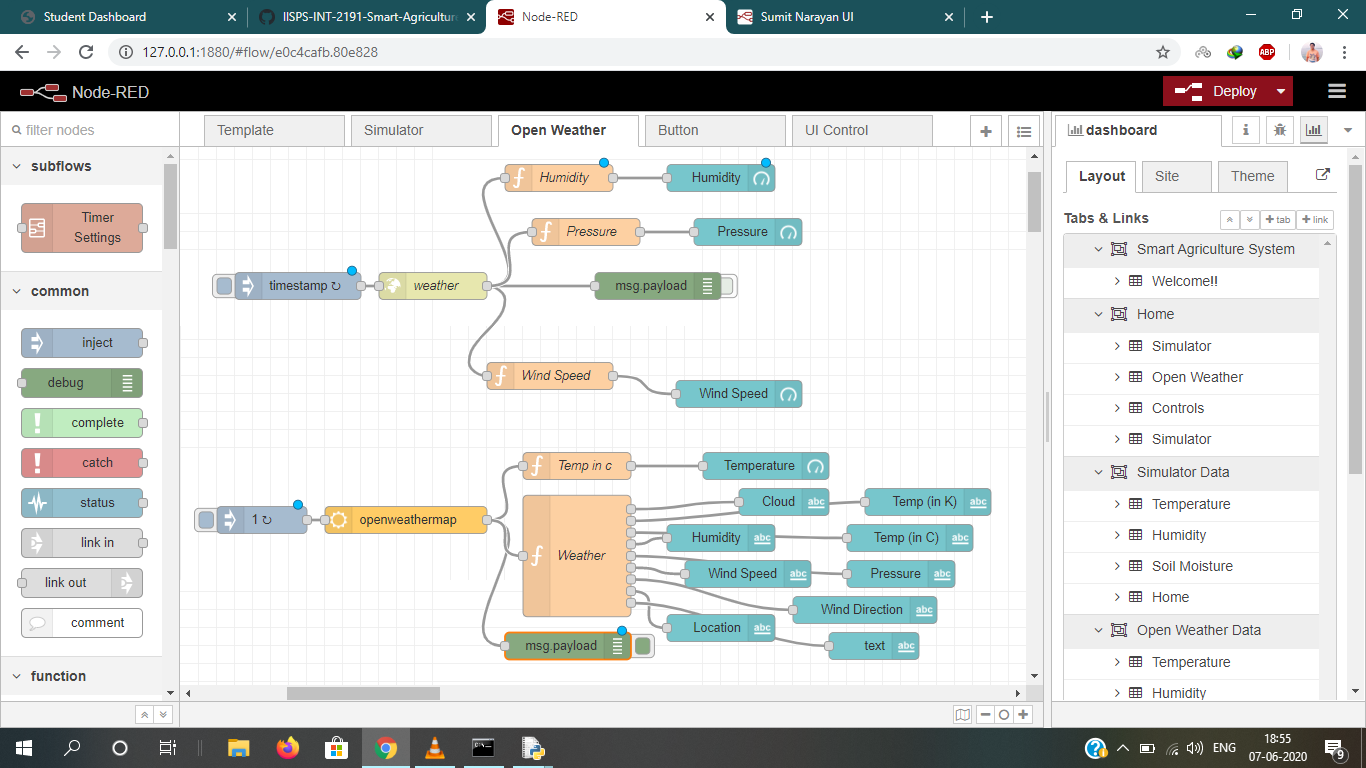
BUTTON.JSON

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OPEN WEATHER API LINK:

api.openweathermap.org/data/2.5/weather?q=Tamilnadu,IN&appid=b8a325a0016e076761f7088f63eb1c5c

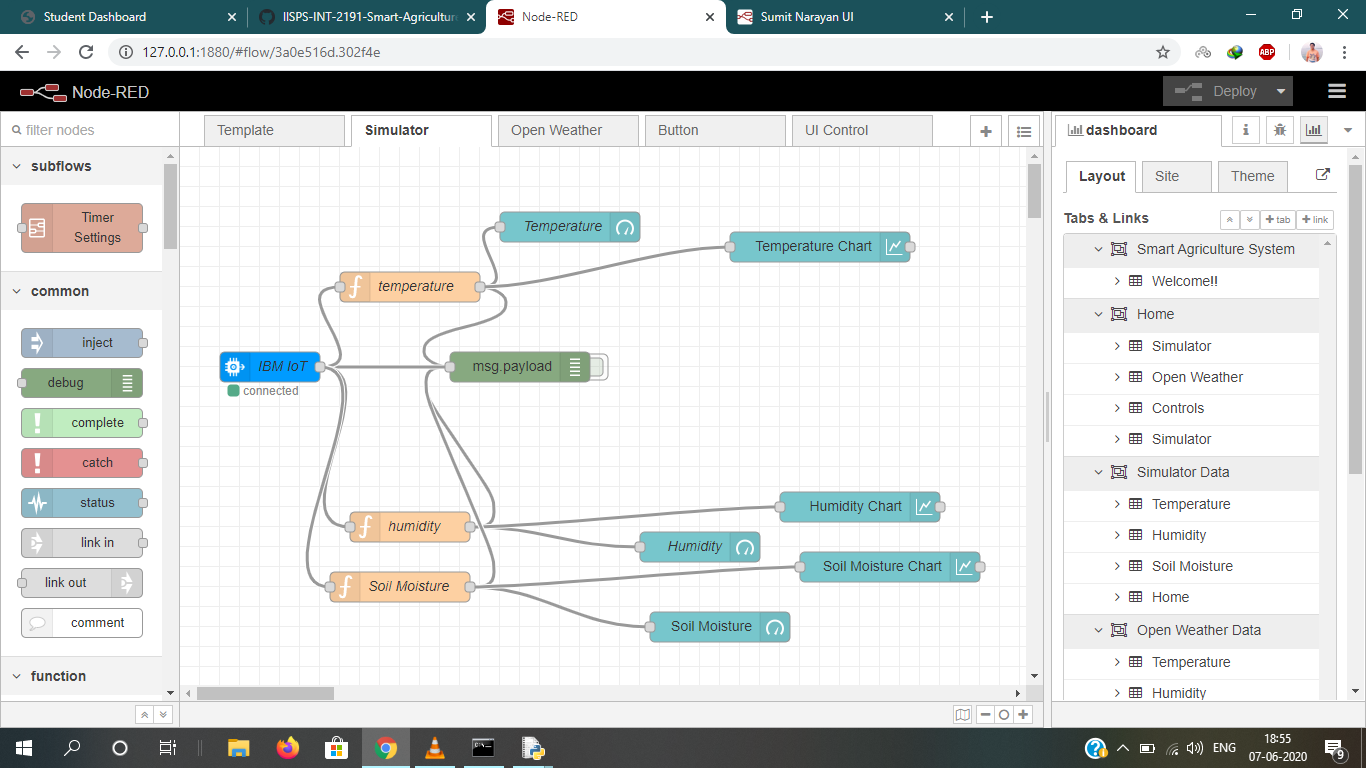


OPEN WEATHER.JSON

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payload:msg.payload.tempc };\nvar msg4 = { payload:msg.payload.humidity };\nvar msg5 = { payload:msg.payload.pressure };\nvar msg6 = { payload:msg.payload.windspeed };\nvar msg7 = { payload:msg.payload.winddirection };\nvar msg8 = { payload:msg.payload.location };\nvar msg9 = { payload:msg.payload.description };\nreturn [msg1,msg2,msg3,msg4,msg5,msg6,msg7,msg8,msg9];","outputs":9,"noerr":0,"x":1000,"y":540,"wires":[["e3d71aad.878d88"],["52980bcd.20e7f4"],["5ddd8c91.e57694"],["abff2149.c9442"],["ca7fdaba.7663a8"],["711be110.17e71"],["8c576c6e.d9bd7"],["dd90ec41.daae5"],["f358c086.497c4"]]},{"id":"52980bcd.20e7f4","type":"ui\_text","z":"e0c4cafb.80e828","group":"5c82ad29.88f2c4","order":3,"width":5,"height":1,"name":"","label":"Temp (in K)","format":"{{msg.payload}}","layout":"row-spread","x":1390,"y":480,"wires":[]},{"id":"5ddd8c91.e57694","type":"ui\_text","z":"e0c4cafb.80e828","group":"5c82ad29.88f2c4","order":4,"width":5,"height":1,"name":"","label":"Temp (in 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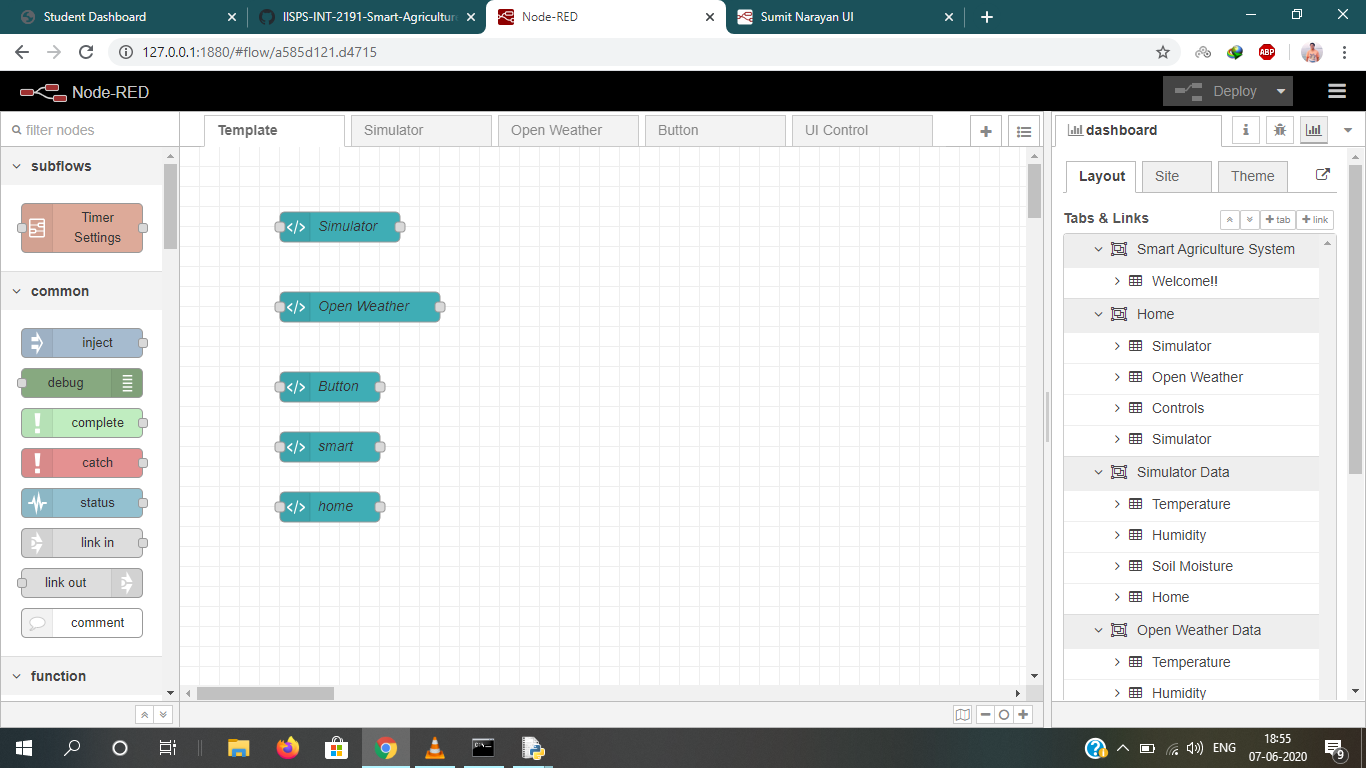
SIMULATOR.JSON

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Moisture","tab":"219bf0a9.3b4c1","order":3,"disp":true,"width":7,"collapse":false},{"id":"76b0b8.f7debf48","type":"ibmiot","z":"","name":"Device\_1","keepalive":"60","serverName":"0lsrz8.messaging.internetofthings.ibmcloud.com","cleansession":true,"appId":"","shared":false},{"id":"219bf0a9.3b4c1","type":"ui\_tab","z":"","name":"Simulator Data","icon":"fa-tachometer","order":3,"disabled":false,"hidden":false}]

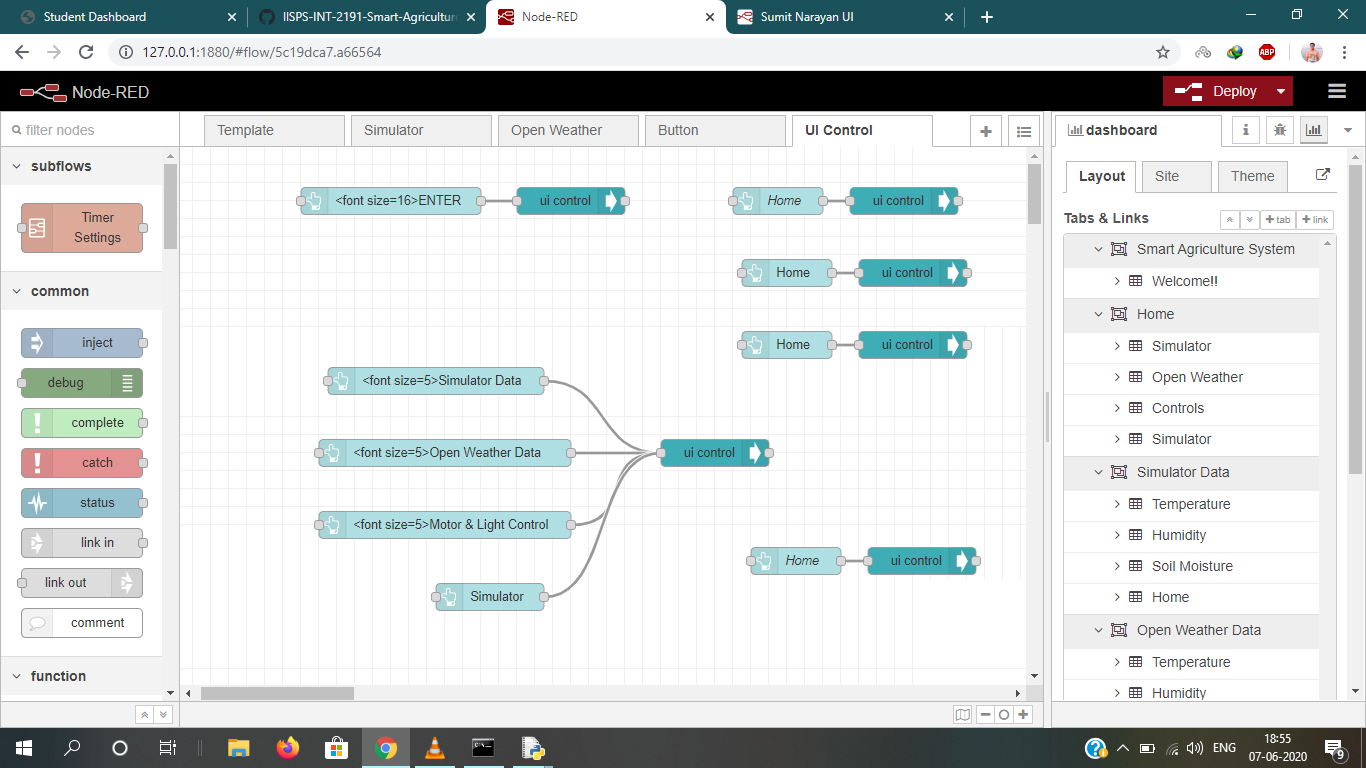


TEMPLATE.JSON

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UI CONTROL:



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PYTHON CODE :

import time

import sys

import ibmiotf.application # to install pip install ibmiotf

import ibmiotf.device

#Provide your IBM Watson Device Credentials

organization = "0lsrz8" # repalce it with organization ID

deviceType = "SMART FARMER #replace it with device type

deviceId = "Device\_1" #repalce with device id

authMethod = "token"

authToken = "SMARTFarmer@123"#repalce with token

def myCommandCallback(cmd): # function for Callback

print("Command received: %s" % cmd.data)

if cmd.data['command']=='motoron':

print("Turn Motor ON")

elif cmd.data['command']=='motoroff':

print("Turn Motor OFF")

elif cmd.data['command']=='lighton':

print("Turn Light ON")

elif cmd.data['command']=='lightoff':

print("Turn Light OFF")

if cmd.data['command']=='ACTIVATE IRRIGATION':

print("TurnON")

elif cmd.data['command']=='DEACTIVATE IRRIGATION':

print("TurnOFF")

elif cmd.data['command']=='HIGH TEMPERATURE':

print("TurnON")

elif cmd.data['command']=='LOW TEMPERATURE':

print("TurnOFF")

if cmd.data['command']=='BAD WEATHER':

print("TurnON")

elif cmd.data['command']=='GOOD WEATHER':

print("TurnOFF")

elif cmd.data['command']=='HUMIDITY HIGH':

print("TurnON")

elif cmd.data['command']=='HUMIDITY LOW':

print("TurnOFF")

if cmd.command == "setInterval":

if 'interval' not in cmd.data:

print("Error - command is missing required

information: 'interval'")

else:

interval = cmd.data['interval']

elif cmd.command == "print":

if 'message' not in cmd.data:

print("Error - command is missing required

information: 'message'")

else:

output=cmd.data['message']

print(output)

try:

deviceOptions = {"org": organization, "type":

deviceType, "id": deviceId, "auth-method": authMethod,

"auth-token": authToken}

deviceCli = ibmiotf.device.Client(deviceOptions)

#..............................................

except Exception as e:

print("Caught exception connecting device: %s" %

str(e))

sys.exit()

# Connect and send a datapoint "hello" with value "world"

into the cloud as an event of type "greeting" 10 times

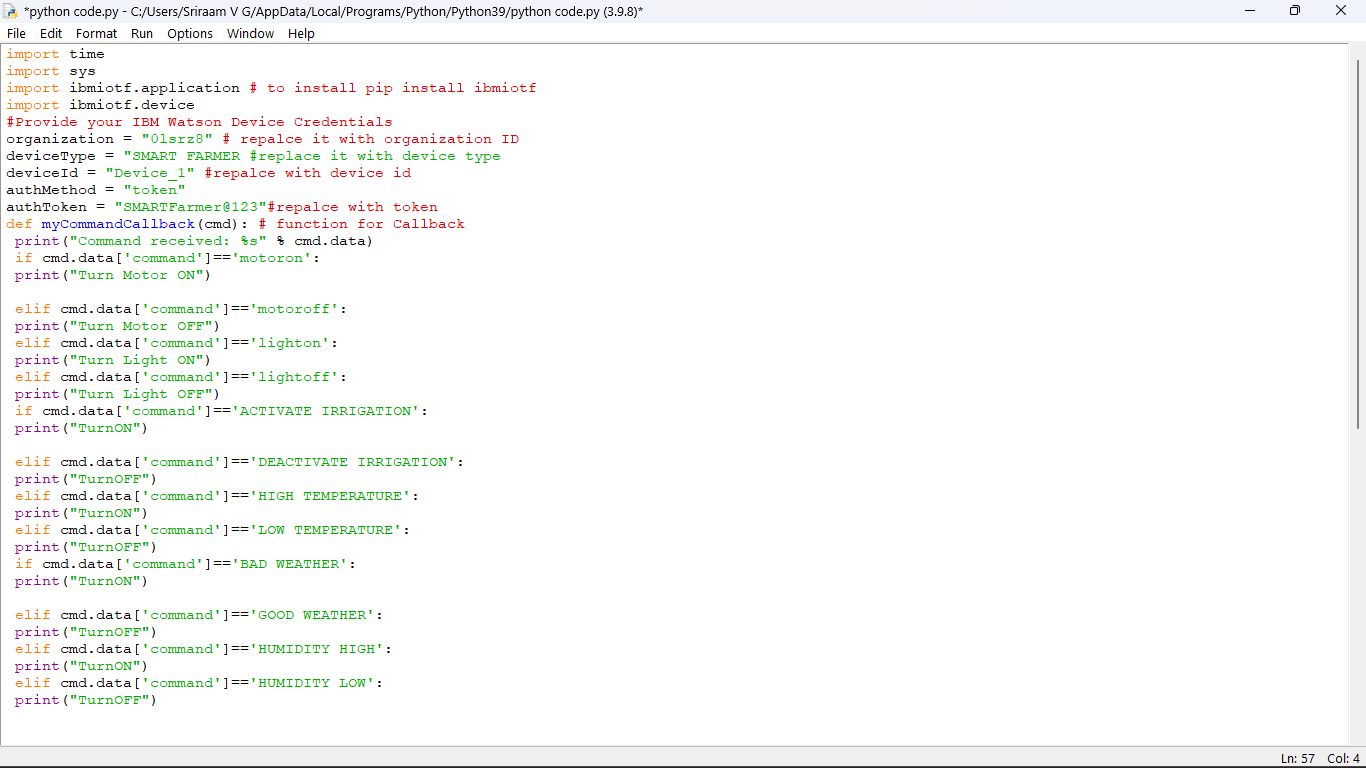
deviceCli.connect()

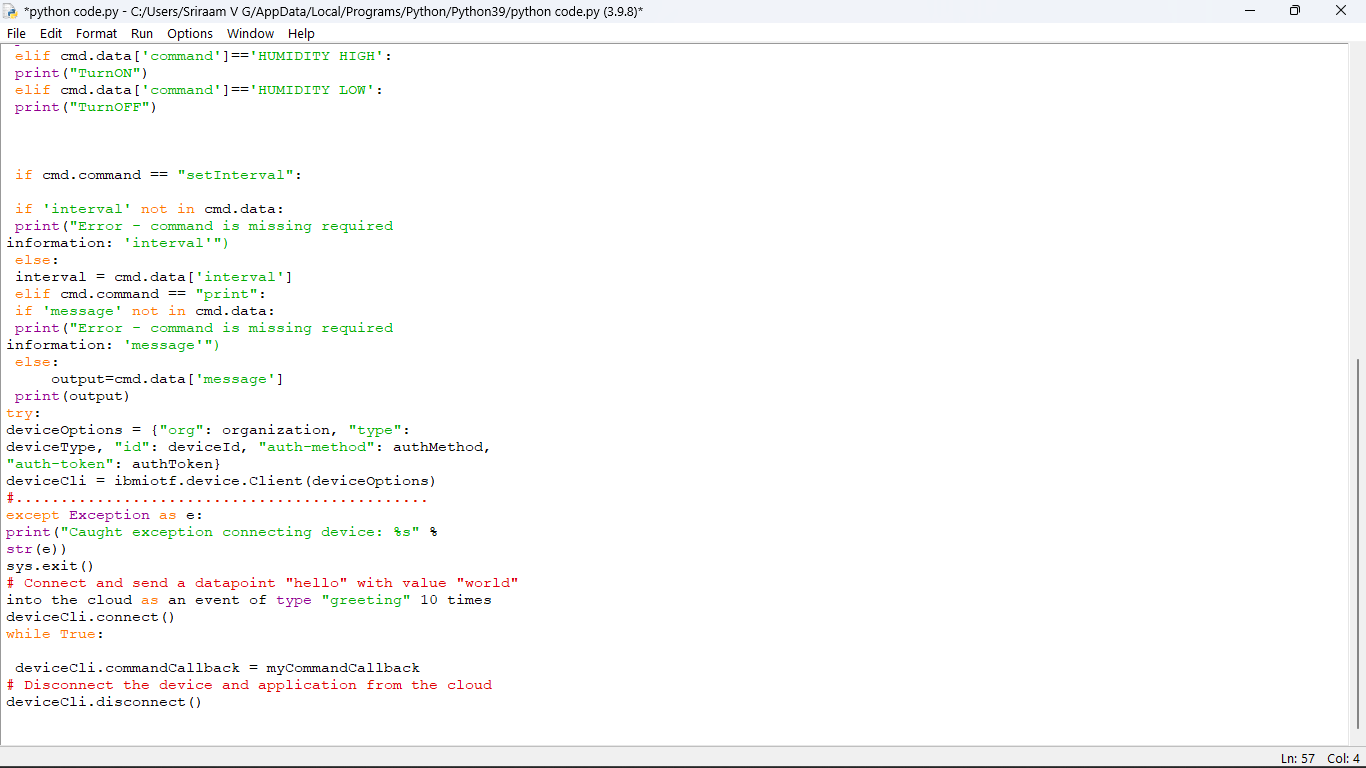
while True:

deviceCli.commandCallback = myCommandCallback

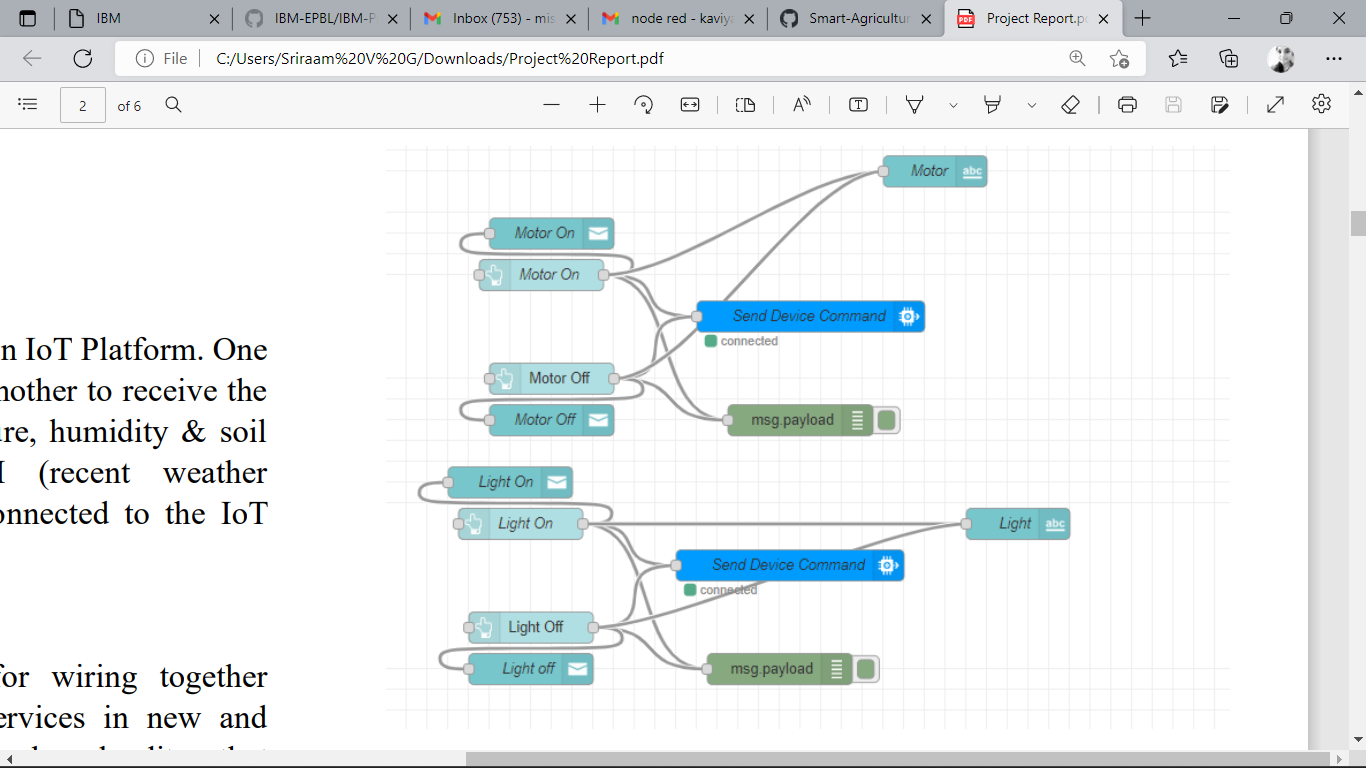
# Disconnect the device and application from the cloud

deviceCli.disconnect()

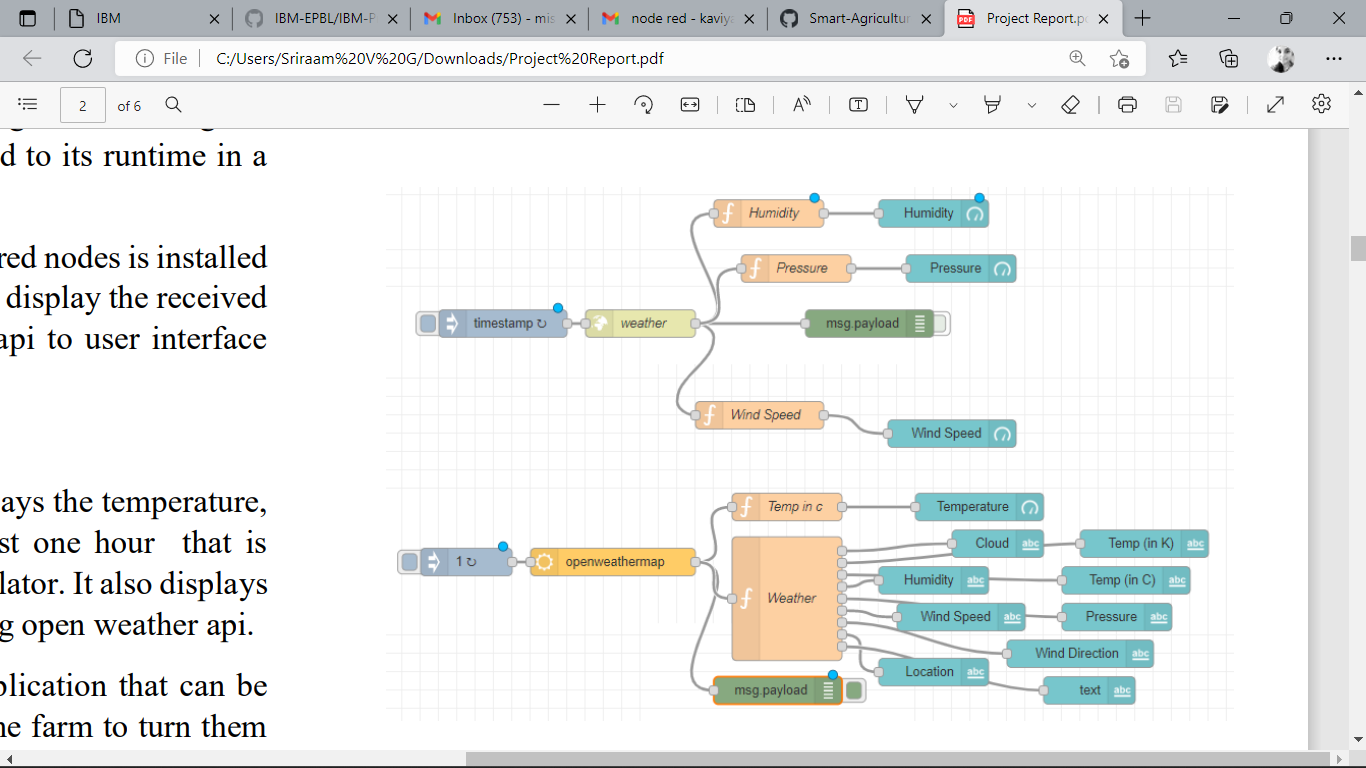




NODE RED FLOW OF MOTOR AND LIGHT:



Node Red Flow To get Open Weather API data:



NODE RED FLOW OF SIMULATIONG DATA:

