Develop The Python Code

Date	29 October 2022
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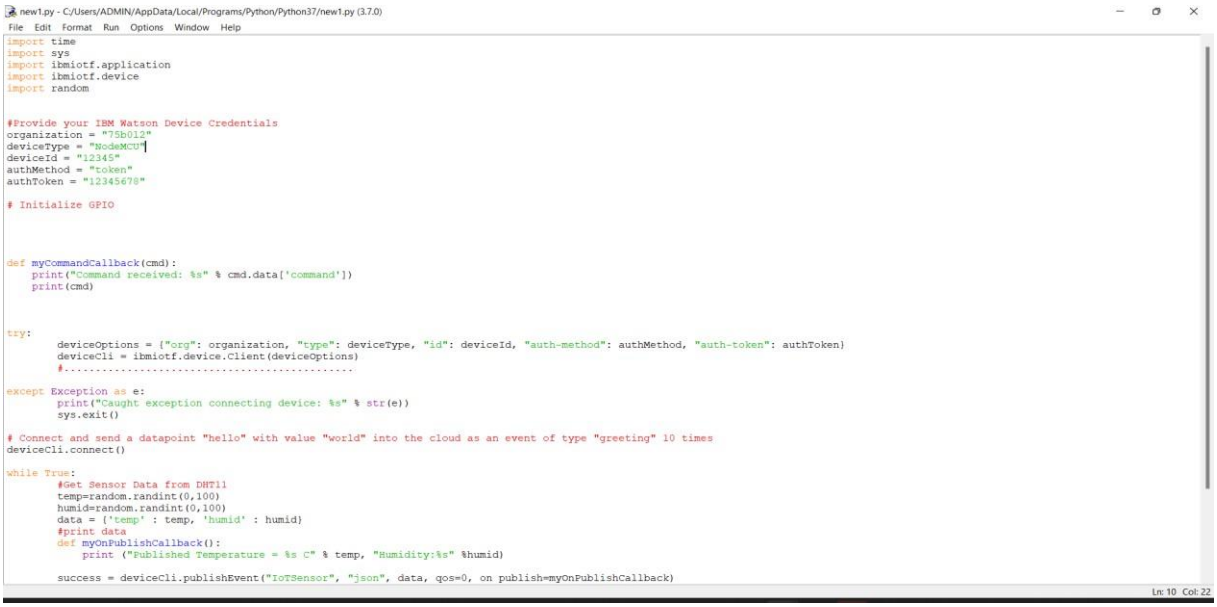
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

Python code has been developed to publish the temperature and humidy value in the ibm iot Watson platform.



```
new1.py - C:/Users/ADMIN/AppData/Local/Programs/Python/Python37/new1.py (3.7.0)
File  Edit  Format  Run  Options  Window  Help
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random


#Provide your IBM Watson Device Credentials
organization = "75b012"
deviceType = "NodeMCU"
deviceId = "12345"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO



def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    print(cmd)


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:
        #Get Sensor Data from DHT11
        temp=random.randint(0,100)
        humid=random.randint(0,100)
        data = {'temp' : temp, 'humid' : humid}
        #print data
        def myOnPublishCallback():
            print ("Published Temperature = %s C" % temp, "Humidity:%s" %humid)

        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
                                                                                                        Ln: 10  Col: 22
```

```
*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: C:/Users/ADMIN/AppData/Local/Programs/Python/Python37/new1.py ===
2022-11-02 22:37:54,840   ibmiotf.device.Client      INFO    Connected successfully: d:75b012:NodeMCU:12345
Published Temperature = 4 C Humidity:9
Published Temperature = 69 C Humidity:99
Published Temperature = 83 C Humidity:74
Published Temperature = 50 C Humidity:49
Published Temperature = 11 C Humidity:56
Published Temperature = 65 C Humidity:55
Published Temperature = 5 C Humidity:2
Published Temperature = 65 C Humidity:38
Published Temperature = 44 C Humidity:65
Published Temperature = 73 C Humidity:44
Published Temperature = 83 C Humidity:13
Published Temperature = 94 C Humidity:32
Published Temperature = 14 C Humidity:53
Published Temperature = 99 C Humidity:58
Published Temperature = 28 C Humidity:24
Published Temperature = 49 C Humidity:51
Published Temperature = 90 C Humidity:64
Published Temperature = 31 C Humidity:32
Published Temperature = 15 C Humidity:100
Published Temperature = 10 C Humidity:92
Published Temperature = 23 C Humidity:9
Published Temperature = 66 C Humidity:56
Published Temperature = 66 C Humidity:6
Published Temperature = 55 C Humidity:85
Published Temperature = 56 C Humidity:7
Published Temperature = 69 C Humidity:75
Published Temperature = 81 C Humidity:61
Published Temperature = 44 C Humidity:14
Published Temperature = 49 C Humidity:95
Published Temperature = 100 C Humidity:52
Published Temperature = 48 C Humidity:82
Published Temperature = 43 C Humidity:23
Published Temperature = 2 C Humidity:100
Published Temperature = 13 C Humidity:92
Published Temperature = 39 C Humidity:61
Published Temperature = 7 C Humidity:22
Published Temperature = 17 C Humidity:98
Published Temperature = 46 C Humidity:9
Published Temperature = 51 C Humidity:74
```