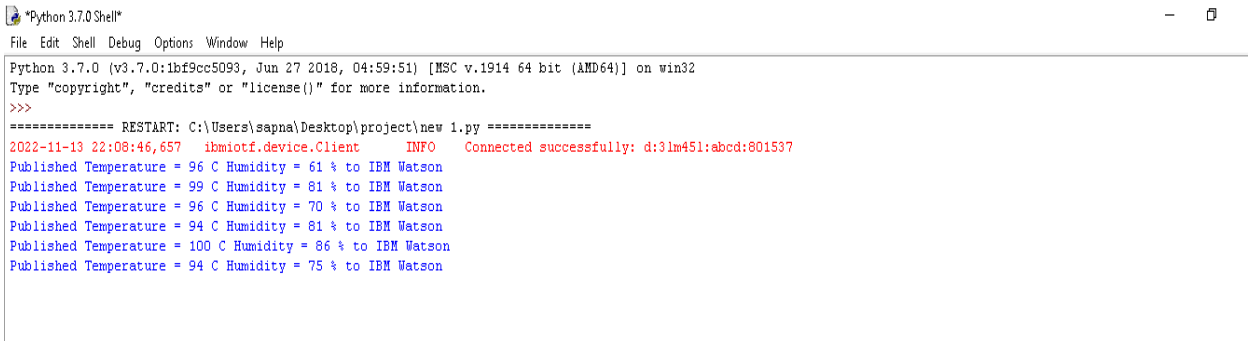
Team ID	PNT2022TMID30918
Project Name	Smart farmer - Iot Enabled Smart Farming Application.
Team leader	Sapna Priya J
Team members	Sneha S , Pavithra P, Soundammal G

Develop A Python Script To Publish And Subscribe To IBM IoT Platform

PYTHON CODE

```
new 1.py - C:\Users\sapna\Desktop\project\new 1.py (3.7.0)
File  Edit  Format  Run  Options  Window  Help
import time
import sys
import ibmiotf.application # to install pip install ibmiotf
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "3lm45l" #replace the ORG ID
deviceType = "abcd"#replace the Device type wi
deviceId = "801537"#replace Device ID
authMethod = "token"
authToken = "12345678" #Replace the authtoken

def myCommandCallback(cmd): # function for Callback
        print("Command received: %s" % cmd.data)
        if cmd.data['command']=='motoron':
                print("Motor On IS RECEIVED")

        elif cmd.data['command']=='motoroff':
                print("Motor Off IS RECEIVED")

        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)
        #.....................................

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times
deviceCli.connect()

while True:
        temp=random.randint(90,100)
        Humid=random.randint(60,100)
        data = {'temp': temp, 'Humid': Humid}
        def myOnPublishCallback():
                print("Published Temperature = %s C" % temp, "Humidity = %s %%" %Humid, "to IBM Watson")
        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
        if not success:
                print("Not connected to IoTF")
        time.sleep(20)
        deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

OUTPUT


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\sapna\Desktop\project\new 1.py ==========
2022-11-13 22:08:46,657 ibmiotf.device.Client INFO Connected successfully: d:3lm451:abcd:801537
Published Temperature = 96 C Humidity = 61 % to IBM Watson
Published Temperature = 99 C Humidity = 81 % to IBM Watson
Published Temperature = 96 C Humidity = 70 % to IBM Watson
Published Temperature = 94 C Humidity = 81 % to IBM Watson
Published Temperature = 100 C Humidity = 86 % to IBM Watson
Published Temperature = 94 C Humidity = 75 % to IBM Watson