

DEVELOP A PYTHON SCRIPT

TEAM ID :PNT2022TMID52822

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Aim:

To develop a python code for publishing the location (latitude and longitude) data to the IBM IoT Platform.

SNIPS:

The screenshot shows a code editor window titled 'Develop a Python Script.py'. The menu bar includes File, Edit, Format, Run, Options, Window, and Help. The code itself is a Python script using the 'wiotp.sdk.device' library to publish location data to an IBM IoT platform. It defines a configuration object 'myConfig' with identity and auth details, creates a device client, connects, and then enters a loop where it publishes event data every 5 seconds. The code uses standard Python syntax with some color-coded keywords.

```
import json
import wiotp.sdk.device
import time
myConfig={
    "identity": {
        "orgId": "9w42t3",
        "typeId": "nodemculocation",
        "deviceId": "1234567890"
    },
    "auth": {
        "token": "NWAxdaFm4hMtPgSxQd"
    }
}
client=wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    name="Smartbridge"
    #in area location
    #latitude 17.4225176
    #longitude 78.5458842
    #out area location
    latitude=17.4219272
    longitude=78.5488783
    myData={ 'name': name, 'lat':latitude, 'lon': longitude}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Data published to IBM IoT platform: "+myData)
    time.sleep(5)
client.disconnect()
```

IBM WATSON IoT PLATFORM:

IBM Watson IoT Platform

Device Drilldown - 1234567890

Device Credentials

You registered your device to the organization. Add these credentials to the device to connect it to the platform. After the device is connected, you can navigate to view connection and event details.

Organization ID	9w42t3
Device Type	nodeMCUlocation
Device ID	1234567890
Authentication Method	use-token-auth
Authentication Token	NWxXdaFm4hMtPgSxQd

⚠️ Authentication tokens are non-recoverable. If you misplaced this token, you will need to re-register the device to generate a new authentication token.

Find out how to add these credentials to your device

0 Simulations running

IBM Watson IoT Platform

Browse Action Device Types Interfaces Add Device +

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added
> <input type="checkbox"/>	12345	Disconnected	NodeMCU	Device	Nov 11, 2022 11:44 PM
> <input type="checkbox"/>	123456789	Disconnected	Wokwi_Bavi	Device	Nov 12, 2022 10:43 AM
> <input type="checkbox"/>	1234567890	Connected	nodeMCUlocation	Device	Nov 12, 2022 5:01 PM
> <input type="checkbox"/>	1904072	Disconnected	citibavi	Device	Nov 12, 2022 1:10 PM

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0 Simulations running

IBM Watson IoT Platform

Device Drilldown - 1234567890

Connection Information

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

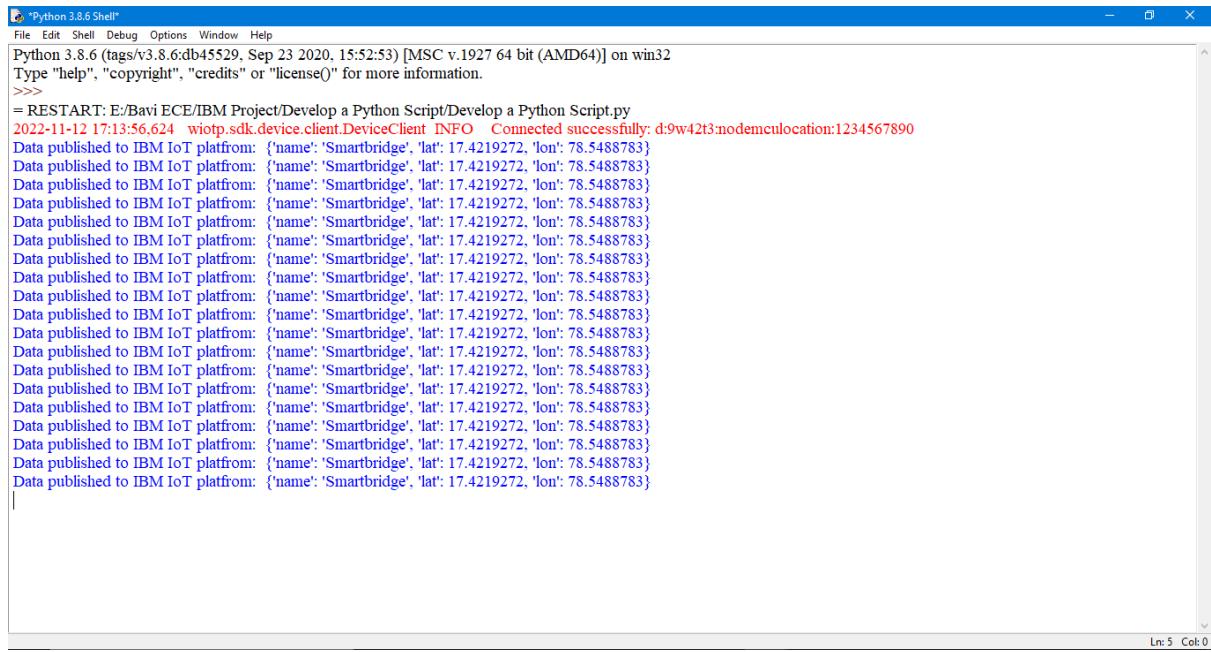
Event	Value	Format	Last Received
status	{"name": "Smartbridge", "lat": 17.4219272, "lon": 7...	json	a few seconds ago
status	{"name": "Smartbridge", "lat": 17.4219272, "lon": 7...	json	a few seconds ago

State

This table shows a list of data points that are reported.

0 Simulations running

Python output :



The screenshot shows a Windows command-line interface titled "Python 3.8.6 Shell". The window title bar includes "File Edit Shell Debug Options Window Help". The main area displays a series of log messages from a Python script named "DeviceClient.py". The log indicates a successful connection to the IBM IoT platform at location 1234567890. Following the connection, the script repeatedly publishes data to the platform, with each publication message containing the device name "Smartbridge", latitude "17.4219272", and longitude "78.5488783". The log entries are timestamped with the date and time "2022-11-12 17:13:56,624". The bottom right corner of the window shows "Ln: 5 Col: 0".

```
File Edit Shell Debug Options Window Help
Python 3.8.6 (tags/v3.8.6-d6db45529, Sep 23 2020, 15:52:53) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: E:/Bavi ECE/IBM Project/Develop a Python Script/Develop a Python Script.py
2022-11-12 17:13:56,624 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:9w42t3:nodemculocation:1234567890
Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272, 'lon': 78.5488783}
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Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272, 'lon': 78.5488783}
```

Result:

A python code for publishing the location (latitude and longitude) data to the IBM IoT platform has been created successfully.