

DEVELOP A PYTHON SCRIPT PUBLISH DATA TO IBM CLOUD

Team ID	PNT2022TMID21482
Project Name	IoT Based Safety Gadget for Child Safety Monitoring & Notification

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A table lists devices, with one device selected: ID 12345, Status Disconnected, Device Type NodeMCU, Class ID Device, Date Added Oct 10, 2022 6:35 PM, and Descriptive Location. A detailed view of this device is shown below the table, including its Identity, Device Information, Recent Events, State, and Logs. The device information section shows: Device ID 12345, Device Type NodeMCU, Date Added Oct 10, 2022 6:35 PM, Added By daya@student.tce.edu, and Connection Status Disconnected. The connection status details include: Last Connected: Nov 16, 2022 10:34 PM, Client Address: 35.245.77.138, SecureToken, Duration: a few seconds, and Data Transferred: 143 B. The bottom of the dashboard shows a taskbar with various application icons and system information like temperature (26°C) and time (9:45 PM 17-11-2022).

The screenshot shows a Jupyter Notebook titled 'child tracking.ipynb' in a web browser. The notebook contains a Python script that imports the 'json' and 'wiotp.sdk.device' modules. It defines a configuration object 'myConfig' with fields for 'identity' (orgId, typeId, deviceId) and 'auth' (token). The script then creates a 'DeviceClient' object, connects to the IoT platform, and enters a loop where it publishes data (name, latitude, longitude) as JSON events. The data is published every 5 seconds until the client is disconnected. The script is as follows:

```
import json
import wiotp.sdk.device
import time

myConfig={
    "identity":{
        "orgId":"h2xjhq",
        "typeId":"NodeMCU",
        "deviceId":"12345"
    },
    "auth":{
        "token":"12345678"
    }
}

client = wiotp.sdk.device.DeviceClient(config=myConfig,logHandlers=None)
client.connect()

while True:
    name="Smartbridge"

    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()
```

child tracking.ipynb

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Editing

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```
import json
import wiotp.sdk.device
import time

myConfig={
    "identity":{
        "orgId":"h2xjhg",
        "typeId":"NodeMCU",
        "deviceId":"12345"
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    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()
```

```
... 2022-11-17 16:16:44.949 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:h2xjhg:NodeMCU:12345
INFO:wiotp.sdk.device.client.DeviceClient:Connected successfully: d:h2xjhg:NodeMCU:12345
Data published to IBM IoT platform {'name': 'Smartbridge', 'lat': 17.4219272, 'lon': 78.5488783}
Data published to IBM IoT platform {'name': 'Smartbridge', 'lat': 17.4219272, 'lon': 78.5488783}
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```

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Executing (21s) Cell

IBM Watson IoT Platform

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Connected	NodeMCU	Device	Oct 10, 2022 6:35 PM	

Identity Device Information Recent Events State Logs

Device ID: 12345

Device Type: NodeMCU

Date Added: Oct 10, 2022 6:35 PM

Added By: daya@student.tce.edu

Connection Status: Connected

Connection Time: Nov 17, 2022 9:49 PM

Client Address: 34.173.159.179 SecureToken

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IBM Watson IoT Platform

Device Drilldown - 12345

Connection Information

Basic connection information about this device.

Device ID: 12345

Device Type: NodeMCU

Date Added: Oct 10, 2022 6:35 PM

Added By: daya@student.tce.edu

Connection Status: Connected

Connection Time: Nov 17, 2022 9:49 PM

Client Address: 34.173.159.179 SecureToken

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
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IBM Watson IoT Platform

Device Drilldown - 12345

← Back

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

Connection Logs

View logs for the device connection to Watson IoT Platform

Message	Timestamp
Token auth succeeded: ClientID="dh2xjhqNodeMCU:12345", ClientIP=34.173.159.179, ClientPort=52715, ConnectionId=35879260	Nov 17, 2022 9:49 PM
Token auth succeeded: ClientID="dh2xjhqNodeMCU:12345", ClientIP=34.173.159.179, ClientPort=56663, ConnectionId=35879240	Nov 17, 2022 9:49 PM
Token auth succeeded: ClientID="dh2xjhqNodeMCU:12345", ClientIP=34.173.159.179, ClientPort=40109, ConnectionId=35958133	Nov 17, 2022 9:49 PM
Token auth succeeded: ClientID="dh2xjhqNodeMCU:12345", ClientIP=34.173.159.179, ClientPort=47155, ConnectionId=35879229	Nov 17, 2022 9:49 PM
Token auth succeeded: ClientID="dh2xjhqNodeMCU:12345", ClientIP=34.173.159.179, ClientPort=50327, ConnectionId=35879217	Nov 17, 2022 9:49 PM
Closed connection. The client ID was reused.	Nov 17, 2022 9:48 PM
Token auth succeeded: ClientID="dh2xjhqNodeMCU:12345", ClientIP=34.173.159.179, ClientPort=43471, ConnectionId=35879212	Nov 17, 2022 9:48 PM

IBM Watson IoT Platform

Browse

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Connected	NodeMCU	Device	Oct 10, 2022 6:35 PM	

Showing Raw Data | No Interfaces Available

Property	Value	Type	Event	Last Received
name	Child	String	status	a few seconds ago
lat	9.882190226007319	Number	status	a few seconds ago
lon	78.08165482089441	Number	status	a few seconds ago

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