

SPRINT-1

Team ID	PNT2022TMID47693
Project Name	Project - IoT Based Safety Gadget for Child Safety Monitoring and Notification
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Goal:

Develop a python code for publishing the location (latitude and longitude) data .

Step-1

*Install python software
python version 3.7.4*

Step-2

Install Watson IoT Python SDK to connect to IBM Watson IoT Platform using python code: give the following command in command prompt:

*`pip install wiotp-sdk`
`pip install ibmiotf`*

Step-3

Develop a python script to publish the location details to the IBM IoT platform

```
1 import json
2 import wiotp.sdk.device
3 import time
4 import ibmiotf.application
5 import ibmiotf.device
6
```

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```
7 myConfig = {
8     "identity": {
9         "orgId": "6j0oju",
10        "typeId": "ESP",
11        "deviceId": "1234"
12    },
13    "auth": {
14        "token": "12345678"
15    }
16}
17def myCommandCallback(cmd):
18    print("Command received: %s" %
19        cmd.data['command'])
19    status=cmd.data['command']
20    if status=="locationon":
21        print ("location is on")
22    elif status == "locationoff":
23        print ("location is off")
24    else :
25        print ("please send proper command")
26
27client =
28    wiotp.sdk.device.DeviceClient(config=myConfig,
29        logHandlers=None)
30client.connect()
31
32while True:
33    name= "Sowmiya"
34    #in area location
35    #latitude=9.28
```

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```
35     #longitude= 78.5458842
36
37     #out area location
38
39     latitude= 9.28
40     longitude= 78.5488783
41     mydata={'name': name,
42             'lat':latitude,'lon':longitude}
43     client.publishEvent(eventId="status",
44                         msgFormat="json", data=mydata, qos=0,
45                         onPublish=None)
46     print("Data published to IBM IoT platform:
47           ",mydata)
48     time.sleep(20)
49
50     client.commandCallback = myCommandCallback
51
52     client.disconnect()
```

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```
child.py - C:\Python\Python37\child.py (3.7.4)
File Edit Format Run Options Window Help
import ibmiotf.application
import ibmiotf.device

myConfig = {
    "identity": {
        "orgId": "6j0oju",
        "typeId": "ESP",
        "deviceId": "1234"
    },
    "auth": {
        "token": "12345678"
    }
}

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="locationon":
        print ("location is on")
    elif status == "locationoff":
        print ("location is off")
    else :
        print ("please send proper command")

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

while True:
    name= "Sowmiya"
    #in area location

    #latitude= 17.4225176
    #longitude= 78.5458842

    #out area location

    latitude= 9.28
    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(20)

    client.commandCallback = myCommandCallback

client.disconnect()
```

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Step-4

To run the program.

```
child.py - C:\Python\Python37\child.py (3.7.4)
File Edit Format Run Options Window Help
import ibmiotf.application
import ibmiotf.device

myConfig = {
    "identity": {
        "orgId": "6j0oju",
        "typeId": "ESP",
        "deviceId": "1234"
    },
    "auth": {
        "token": "12345678"
    }
}

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="locationon":
        print ("location is on")
    elif status == "locationoff":
        print ("location is off")
    else :
        print ("please send proper command")

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

while True:
    name= "Sowmiya"
    #in area location

    #latitude= 17.4225176
    #longitude= 78.5458842

    #out area location

    latitude= 9.28
    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(20)

    client.commandCallback = myCommandCallback

client.disconnect()
```

```
Python 3.7.4 (tags/v3.7.4:09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python\Python37\child.py =====
2022-11-12 09:45:03,696 wiotp.sdk.device.client.DeviceClient INFO Connected successful
ly: d:6j0oju:ESP:1234
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Command received: locationon
location is on
Command received: locationon
location is on
Command received: locationoff
location is off
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Command received: locationoff
location is off
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Command received: locationon
location is on
Command received: locationoff
location is off
Command received: locationoff
location is off
Command received: locationon
location is on
Command received: locationoff
location is off
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
Data published to IBM IoT platform: {'name': 'Sowmiya', 'lat': 17.4219272, 'lon': 78.548878
3}
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```

Ln: 22 Col: 32

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