

# Project Development –Delivery plan sprint-1

IoT Based Safety Gadget for Child Safety Monitoring & Notification

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**Creating and Connecting IBM cloud for Project and Python Code**

**Creating IBM Cloud Service and creating the device:**

The top screenshot shows the IBM Watson IoT Platform dashboard. The main heading is 'Cars'. Below it, there is a flow diagram with two main steps: 'Collect data from' and 'and make value from it'. The dashboard is dark-themed with white text and icons. A 'Sign in' button is visible in the top right corner.

The bottom screenshot shows the IBM Watson IoT Platform 'Devices' dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A 'Add Device' button is in the top right. The main content area displays a table of devices:

Device ID	Status	Device Type	Class ID	Date Added
12345	Connected	MyDeviceType	Device	14 Nov 2022 11:37

Below the table, there is a detailed view of the device with ID 12345. The view includes tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Identity' tab is selected, showing the following information:

- Device ID: 12345
- Device Type: MyDeviceType
- Date Added: 14 Nov 2022 11:37
- Added By: 310819106036@smartintenz.com
- Connection Status: Connected
- Connection Time: 14 Nov 2022 17:15
- Client Address: 157.51.38.16 SecureToken

At the bottom of the dashboard, there is a status bar indicating '1 Simulation running'.

## Creating Python Code:

```
import json
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity":{
        "orgId": "jgry6x",
        "typeId":"MyDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token":"*eB+Vs5Pb3m6f79Vnn"
    }
}
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 platfrom: ", myData)
    time.sleep(5)

client.disconnect()
```

**In-Area Location:**

The screenshot shows two side-by-side Python IDE windows. The left window displays the output of a script running repeatedly, printing location data for an IBM IoT platform device named 'Smartbridge'. Each iteration prints the name, latitude (lat), and longitude (lon) coordinates.

```
Python 3.7.0 Shell
```

```
File Edit Shell Debug Options Window Help
```

```
'lon': 78.5498783}
Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272,
'lon': 78.5498783}
Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272,
'lon': 78.5498783}
Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272,
'lon': 78.5498783}
Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272,
'lon': 78.5498783}
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'lon': 78.5498783}
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'lon': 78.5498783}
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'lon': 78.5498783}
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'lon': 78.5498783}
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Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272,
'lon': 78.5498783}
Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272,
'lon': 78.5498783}
```

The right window shows the source code of the script being executed:

```
ibm-code.py - C:\Users\selsva\Desktop\ibm-code.py (3.7.0)
```

```
File Edit Format Run Options Window Help
```

```
import json
import wiotp.sdk.device
import time
myConfig = {

    "identity":{
        "orgId": "jgry6x",
        "typeId": "MyDeviceType",
        "deviceId": "t12345"
    },
    "auth": {
        "token": "#eB+Vs5Fb3meZ79Vn#"
    }
}
client= wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

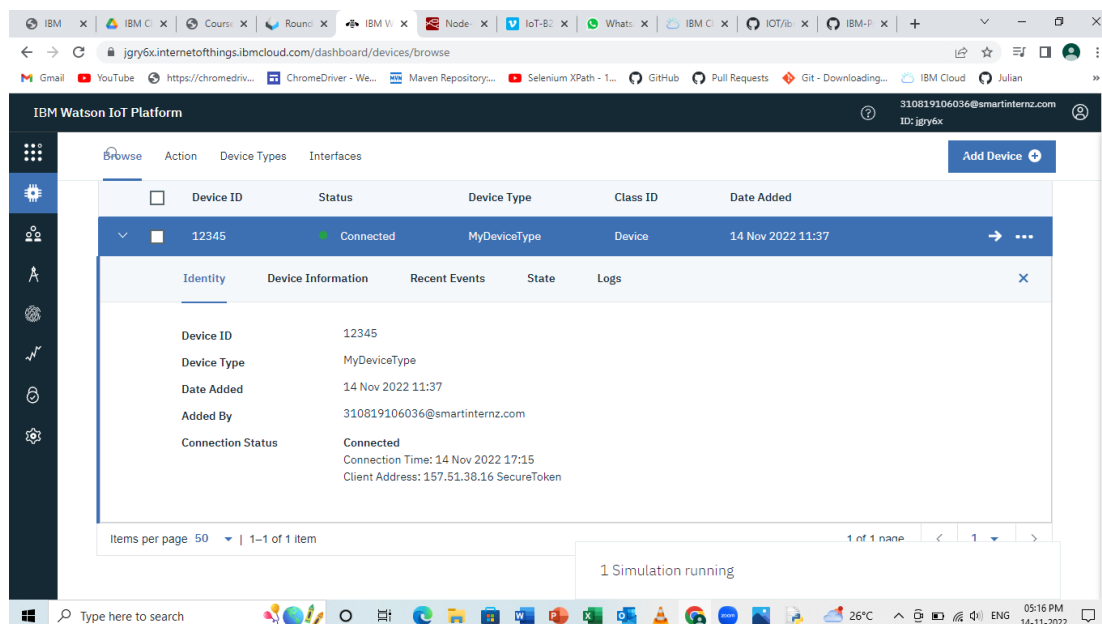
while True:
    name = "Smartbridge"
    #in area location

    #latitude = 17.4225176
    #longitude = 78.5456842

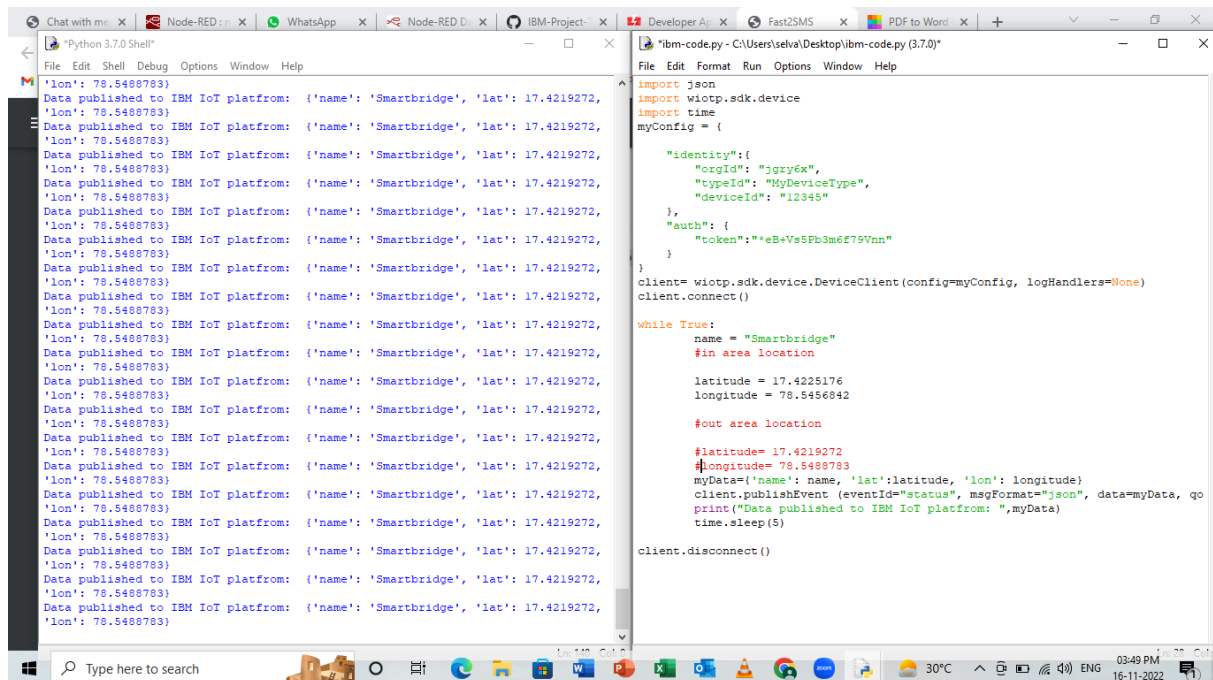
    #out area location

    latitude= 17.4219272
    longitude= 78.5498783
    myData={'name': name, 'lat':latitude, 'lon': longitude}
    client.publishEvent(eventid="status", msgFormat="json", data=myData, qo
print("Data published to IBM IoT platform: ",myData)
time.sleep(5)

client.disconnect()
```



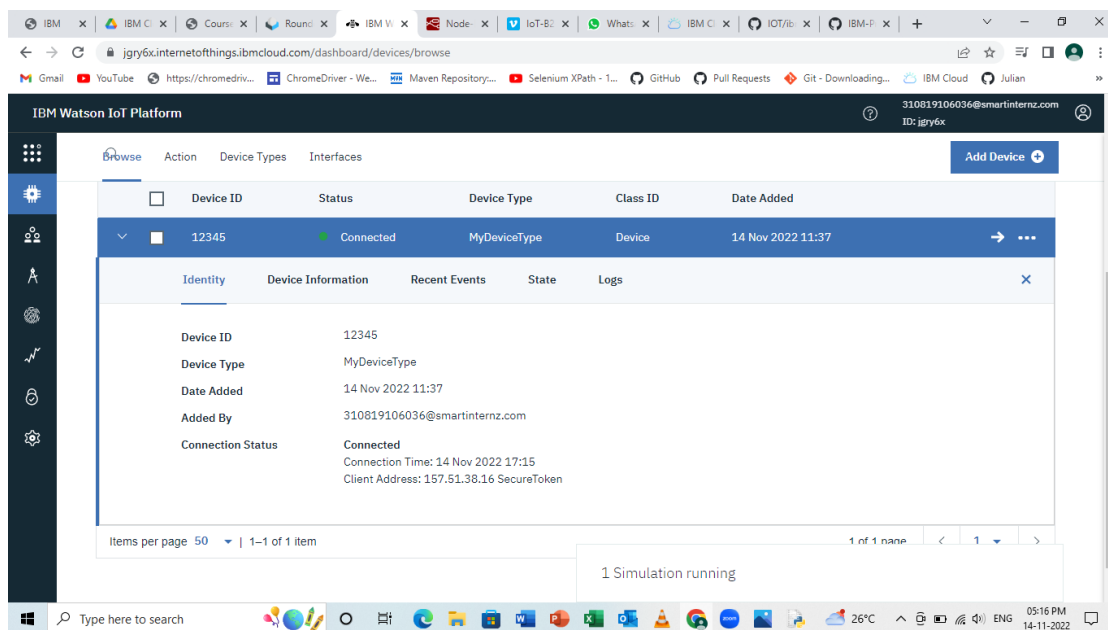
# Out-Area Location:



The screenshot shows a Windows desktop with several open applications. The primary focus is on a Python 3.7.0 Shell window and a Python script named 'ibm-code.py'.

The Python 3.7.0 Shell window displays the output of a script, showing a series of messages: 'Data published to IBM IoT platform: {'name': 'Smartbridge', 'lat': 17.4219272, 'lon': 78.5488783}'. This message is repeated multiple times.

The 'ibm-code.py' script is located at 'C:\Users\selsa\Desktop\ibm-code.py (3.7.0)'. It imports the 'json' module and the 'wiotp.sdk.device' module. It defines a configuration object 'myConfig' with the following values: 'orgId': 'jgry6x', 'typeId': 'MyDeviceType', 'deviceId': '12345'. It then creates a 'DeviceClient' object and connects it. The script enters a 'while True' loop where it publishes data to the IBM IoT platform. The data is a JSON object with 'name': 'Smartbridge', 'lat': 17.4219272, and 'lon': 78.5488783. The script also prints a message: 'Data published to IBM IoT platform: ', myData. The script ends with 'client.disconnect()'. The script is running, as indicated by the '1 Simulation running' message at the bottom of the shell window.



The screenshot shows the IBM Watson IoT Platform dashboard. The dashboard displays a list of devices, with one device selected and its details shown in a modal window.

Device ID	Status	Device Type	Class ID	Date Added
12345	Connected	MyDeviceType	Device	14 Nov 2022 11:37

The modal window shows the details for the selected device (Device ID: 12345). The details include:

- Device ID: 12345
- Device Type: MyDeviceType
- Date Added: 14 Nov 2022 11:37
- Added By: 310819106036@smartinternz.com
- Connection Status: Connected
- Connection Time: 14 Nov 2022 17:15
- Client Address: 157.51.38.16 SecureToken

The dashboard also shows a message: '1 Simulation running'.