

Project Development –Delivery plan sprint-2

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 are two main sections: '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 'Add Device' process in the IBM Watson IoT Platform. The interface is light-themed. A table lists the device details:

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

Below the table, there is a section for 'Device Information' with the following details:

- 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 interface, it says '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 image shows a Windows desktop with two open Python IDE windows. The left window, titled "Python 3.7.0 Shell", displays a series of 20 log messages: "Data published to IBM IoT platform: ('name': 'Smartbridge', 'lat': 17.4219272, 'lon': 78.5498783)". The right window, titled "ibm-code.py - C:\Users\selsva\Desktop\ibm-code.py (3.7.0)", shows the Python code that generates these messages. The code imports json, wiotp.sdk.device, and time, defines a myConfig dictionary with identity, auth, and device details, creates a DeviceClient, and enters a while True loop that publishes data and sleeps for 5 seconds.

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

myConfig = {

    "identity":{
        "orgId": "jgry6x",
        "typeId": "MyDeviceType",
        "deviceId": "t12345"
    },
    "auth": {
        "token": "KcB+Vs5Fb3mEz79VnH"
    }
}

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

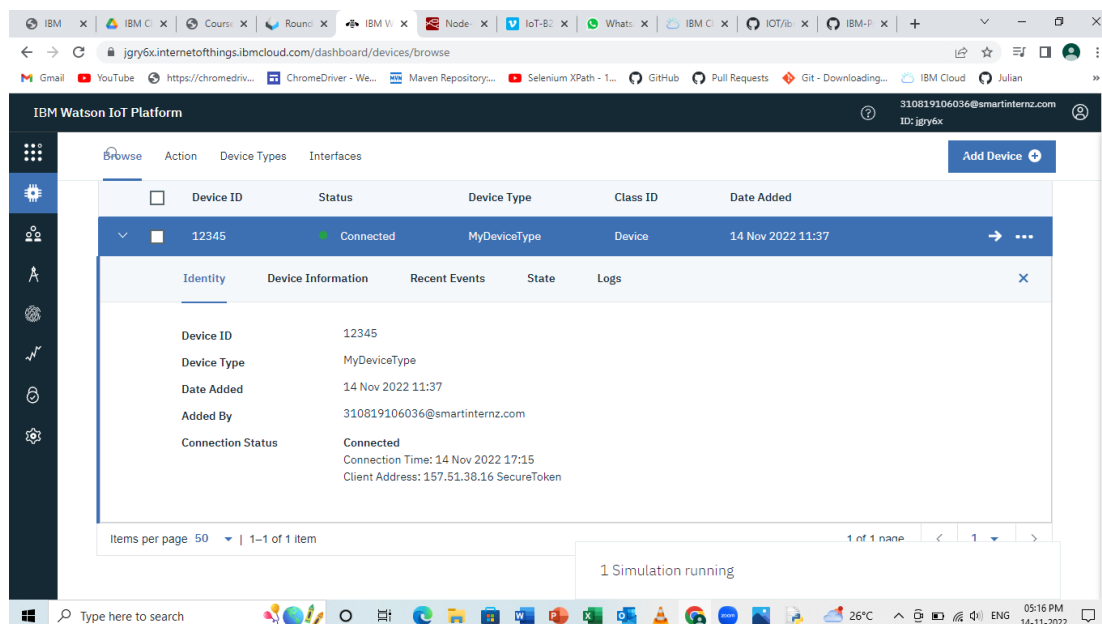
while True:
    name = "Smartbridge"
    #in area location

    #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}" repeated multiple times.

The 'ibm-code.py' script is a Python program that uses the 'wiottp.sdk.device' module to connect to the IBM IoT platform. It defines a configuration object 'myConfig' with the following details:

- orgId: "jgry6x"
- typeId: "MyDeviceType"
- deviceId: "12345"

The script then creates a 'DeviceClient' object and connects to the platform. It enters a 'while True' loop where it publishes data to the platform. The data is a dictionary with 'name' and 'lat' fields. The 'lat' field is set to 17.4219272, and the 'lon' field is set to 78.5488783. The script also prints a message: "Data published to IBM IoT platform: ", myData".

The screenshot shows the IBM Watson IoT Platform dashboard. The dashboard displays a list of devices, and the device '12345' is selected. The device details are shown in a table below the list.

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

The device details table shows the following information:

- 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".