

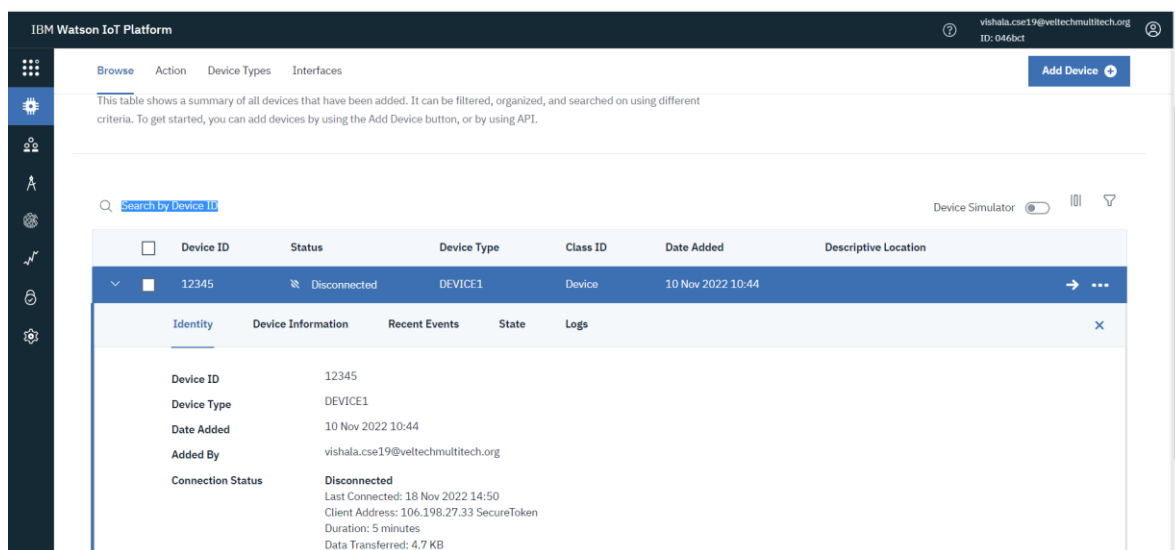
Project Development –Delivery plan sprint-2

IoT Based Safety Gadget for Child Safety Monitoring & Notification

TEAM ID:PNT2022TMID22325

Creating and Connecting IBM cloud for Project and Python Code

Creating IBM Cloud Service and creating the device:



Creating Python Code:

```
import time
import wiotp.sdk.application
from twilio.rest import Client
import twilio_keys

myConfig = {
    "identity": {
        "orgId": "046bct",
        "typeId": "DEVICE1",
        "deviceId": "12345",
    },
    "auth": {
        "token": "123456789"
    }
}
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
    name = "vishal"
    # in area location
    # latitude = 17.4219272
    # longitude = 78.5488783
    # out area location
    latitude = 50.4219272
    longitude = 110.5488783
    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)
```

```
if (latitude != 17.4219272) and (longitude != 78.5488783):
```

```
client1 = Client(twilio_keys.account_sid, twilio_keys.auth_token)
```

```
message = client1.messages.create(
```

body="Dear Parent/Guardian,"

```
"\nVishal is not within the geofence!!!",
```

```
from_twilio_keys.twilio_number,
```

```
to=twilio_keys.target_number
```

)

```
client.disconnect()
```

Connecting IBM Watson and python Code:

In-Area Location:

```
import time
import wiotp.sdk.application

myConfig = {
    "identity": {
        "orgId": "046bct",
        "typeId": "DEVICE1",
        "deviceId": "12345",
    },
    "auth": {
        "token": "123456789"
    }
}

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

while True:
    name = "Vishal"
    # in location
    latitude = 13.189020
    longitude = 80.106220
    # out location
    latitude = 50.4219272
    longitude = 110.5488783
    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()
```

[illegible]

The screenshot shows the IBM Watson IoT Platform interface. At the top, there's a header with the platform name and user information. Below the header, there's a navigation bar with tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains various icons for navigation. The main content area displays details for a specific device (ID: 12345, Name: DEVICE1). The 'Recent Events' tab is selected, showing a table of events. The table has columns for 'Event', 'Value', 'Format', and 'Last Received'. The events listed are all 'status' events with a JSON value containing name, latitude, and longitude, all received 'a few seconds ago'.

Event	Value	Format	Last Received
status	{"name":"Vishal","lat":13.18902,"lon":80.10622}	json	a few seconds ago
status	{"name":"Vishal","lat":13.18902,"lon":80.10622}	json	a few seconds ago
status	{"name":"Vishal","lat":13.18902,"lon":80.10622}	json	a few seconds ago
status	{"name":"Vishal","lat":13.18902,"lon":80.10622}	json	a few seconds ago
status	{"name":"Vishal","lat":13.18902,"lon":80.10622}	json	a few seconds ago

Out-Area Location:

```
import time
import wiotp.sdk.application

myConfig = {
    "identity": {
        "orgId": "046bct",
        "typeId": "DEVICE1",
        "deviceId": "12345",
    },
    "auth": {
        "token": "123456789"
    }
}

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

while True:
    name = "Vishal"
    # in location
    #latitude = 13.189020
    #longitude = 80.106220
    # out location
    latitude = 50.4219272
    longitude = 110.5488783
    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()
```

```
C:\Users\91994\PycharmProjects\pythonintro\venv\Scripts\python.exe C:/Users/91994/PycharmProjects/pythonintro/swap.py
2022-11-18 19:03:01,223 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:046bct:DEVICE1:12345
Data published to IBM IoT Platform: {'name': 'Vishal', 'lat': 50.4219272, 'lon': 110.5488783}
Data published to IBM IoT Platform: {'name': 'Vishal', 'lat': 50.4219272, 'lon': 110.5488783}
Data published to IBM IoT Platform: {'name': 'Vishal', 'lat': 50.4219272, 'lon': 110.5488783}
Data published to IBM IoT Platform: {'name': 'Vishal', 'lat': 50.4219272, 'lon': 110.5488783}
Data published to IBM IoT Platform: {'name': 'Vishal', 'lat': 50.4219272, 'lon': 110.5488783}
Data published to IBM IoT Platform: {'name': 'Vishal', 'lat': 50.4219272, 'lon': 110.5488783}
Data published to IBM IoT Platform: {'name': 'Vishal', 'lat': 50.4219272, 'lon': 110.5488783}
```

IBM Watson IoT Platform

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Browse Action Device Types Interfaces

Add Device

12345 Connected DEVICE1 Device 10 Nov 2022 10:44

Identity Device Information Recent Events State Logs

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":"Vishal","lat":50.4219272,"lon":110.54...	json	a few seconds ago
status	{"name":"Vishal","lat":50.4219272,"lon":110.54...	json	a few seconds ago
status	{"name":"Vishal","lat":50.4219272,"lon":110.54...	json	a few seconds ago
status	{"name":"Vishal","lat":50.4219272,"lon":110.54...	json	a few seconds ago
status	{"name":"Vishal","lat":50.4219272,"lon":110.54...	json	a few seconds ago