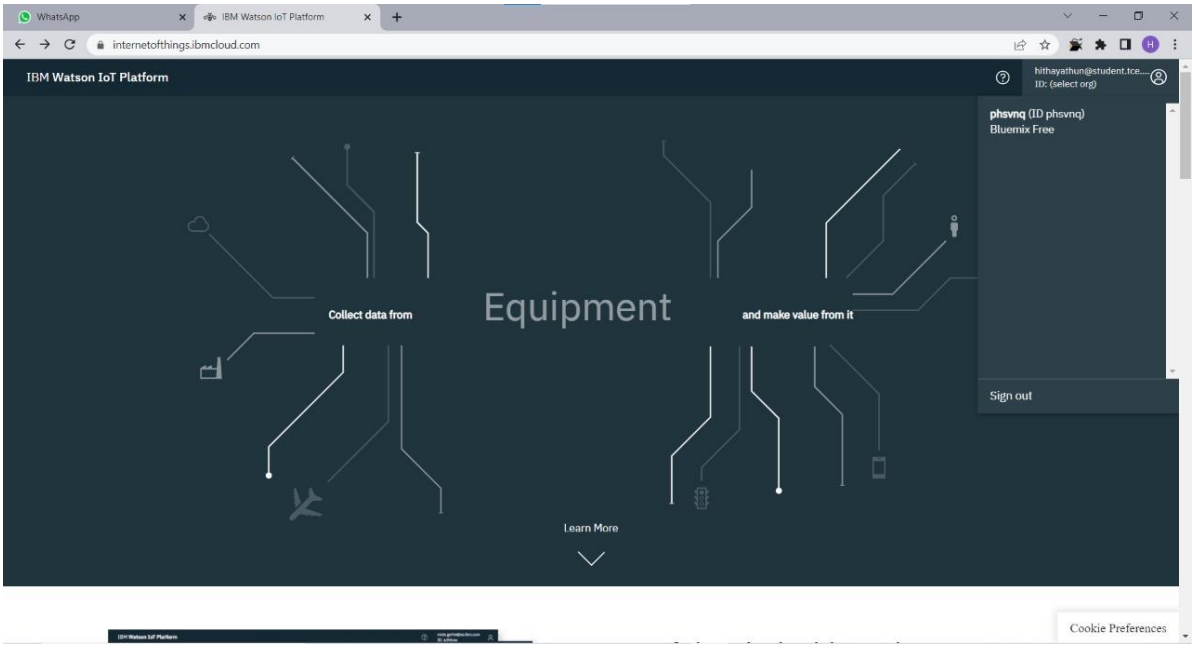
Project Development

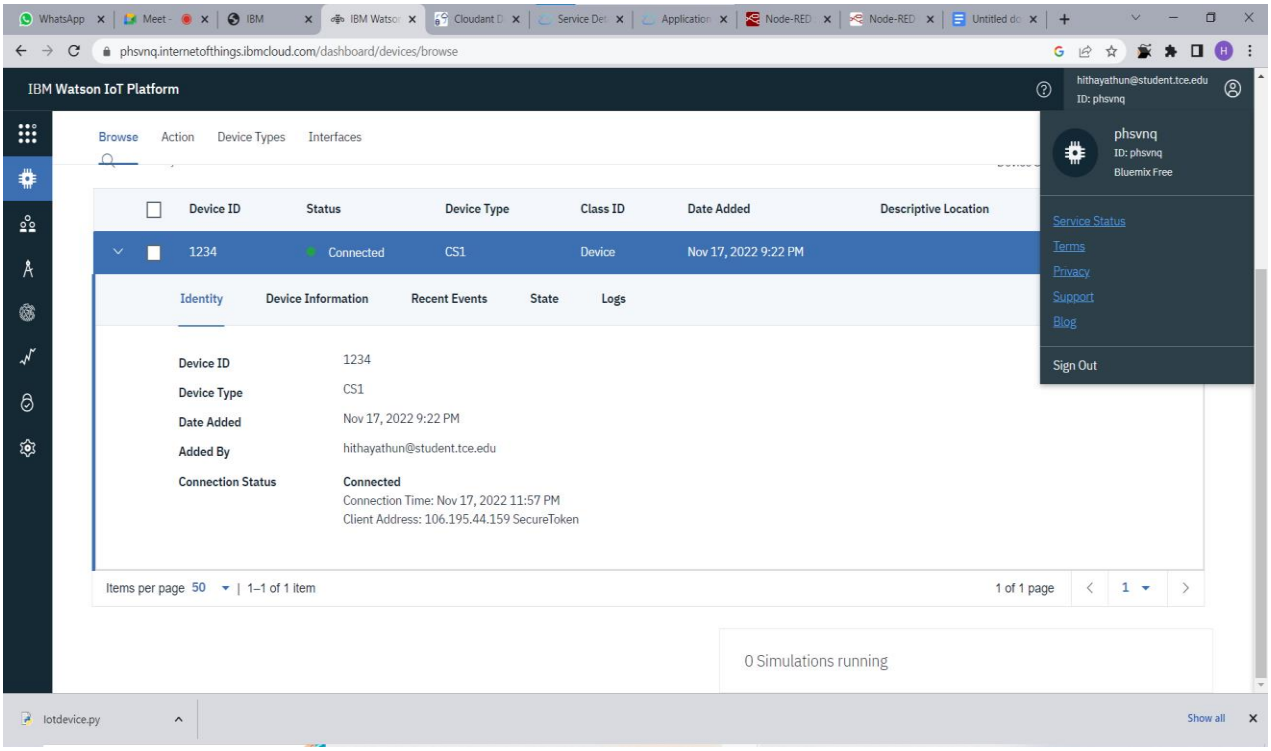
Date	31 October 2022
Team ID	PNT2022TMID21372
Project Name	Iot Based Safety Gadget For Child Safety Monitoring & Notification
Sprint	Sprint 2

Creating and connecting IBM cloud for Project and Python Code

Creating IBM Cloud Service :



Creating the Device :



Connecting IBM Watson and python Code :

In-Area Location:

Iotdevice.py - C:\Users\Lenovo\Downloads\Iotdevice.py (3.7.2)

File Edit Format Run Options Window Help

```python
#import ibmiotf.application
import ibmiotf.device
import sys

config={
    "org":"phsvnq",
    "type" :"CS1",
    "id":"1234",
    "auth-method":"token",
    "auth-token":"123456789"
}
client= ibmiotf.device.Client (config)
client.connect()

def myCommandCallback (cmd):
    a=cmd.data
    if len(a["command"])==0:
        pass
    else:
        print(a["command"])
def pub (data):
    client.publishEvent (event="status", msgFormat="json",data=data, qos=0)
    print("Published data Successfully: %s",data)
while True:
    name= "Childtracker"

    #in area
    latitude= 9.8796
    longitude= 78.0810

    #out area
    #latitude= 9.95143
    #longitude= 78.1158

    data={'name': name, 'lat':latitude,'lon':longitude}
    pub(data)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

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Python 3.7.2 Shell

File Edit Shell Debug Options Window Help

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: C:\Users\Lenovo\Downloads\Iotdevice.py ==============
Published data Successfully: %s2022-11-17 23:42:19,489   ibmiotf.device.Client
    INFO    Connected successfully: d:phsvnq:CS1:1234
 {'name': 'Childtracker', 'lat': 9.8796, 'lon': 78.081}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.8796, 'lon': 7
8.081}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.8796, 'lon': 7
8.081}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.8796, 'lon': 7
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8.081}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.8796, 'lon': 7
8.081}
```

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Out-Area Location :

Iotdevice.py - C:\Users\Lenovo\Downloads\Iotdevice.py (3.7.2)

File Edit Format Run Options Window Help

```python
#import ibmiotf.application
import ibmiotf.device
import sys

config={
    "org":"phsvnq",
    "type" :"CS1",
    "id":"1234",
    "auth-method":"token",
    "auth-token":"123456789"
}
client= ibmiotf.device.Client (config)
client.connect()

def myCommandCallback (cmd):
    a=cmd.data
    if len(a["command"])==0:
        pass
    else:
        print(a["command"])
def pub (data):
    client.publishEvent (event="status", msgFormat="json",data=data, qos=0)
    print("Published data Successfully: %s",data)
while True:
    name= "Childtracker"

    #in area
    #latitude= 9.8796
    #longitude= 78.0810

    #out area
    latitude= 9.95143
    longitude= 78.1158

    data={'name': name, 'lat':latitude,'lon':longitude}
    pub(data)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

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Python 3.7.2 Shell

File Edit Shell Debug Options Window Help

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: C:\Users\Lenovo\Downloads\Iotdevice.py ==============
Published data Successfully: %s2022-11-17 23:39:46,040   ibmiotf.device.Client
    INFO    Connected successfully: d:phsvnq:CS1:1234
 {'name': 'Childtracker', 'lat': 9.95143, 'lon': 78.1158}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.95143, 'lon':
78.1158}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.95143, 'lon':
78.1158}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.95143, 'lon':
78.1158}
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Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.95143, 'lon':
78.1158}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.95143, 'lon':
78.1158}
Published data Successfully: %s {'name': 'Childtracker', 'lat': 9.95143, 'lon':
78.1158}
```

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Connecting IOT Watson device to Python Code