SPRINT 3

Date	14 November 2022
Team ID	PNT2022TMID02664
Project Name	Smart Waste Management for Metropolitan Cities

Generate values for longitude and latitude using python code to indicate location of bin. Send it to node red from IBM Watson platform and view location of bin on map.

Python code:

```
import wiotp.sdk.device
import time
import random
import collections.abc


try:
   from collections.abc import MutableMapping
except ImportError:
   from collections import MutableMapping


myConfig = {
"identity": {
"orgId": "gx76pd",
"typeId": "SmartBin",
"deviceId":"bin-1"
},
"auth": {
"token": "ZeskE9*BHtQSqNlICL"
}
}
def myCommandCallback (cmd):
 print ("Message received from IBM IoT Platform: %s" % cmd.data['command'])
```

m=cmd.data['command']

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

client.connect()

def pub (data):

client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,

onPublish=None)

print ("Published data Successfully: %s", myData)

while True:

myData={'name': 'Bin1', 'lat': 13.092677, 'lon': 80.188314}

pub (myData)

time.sleep (3)

client.commandCallback = myCommandCallback

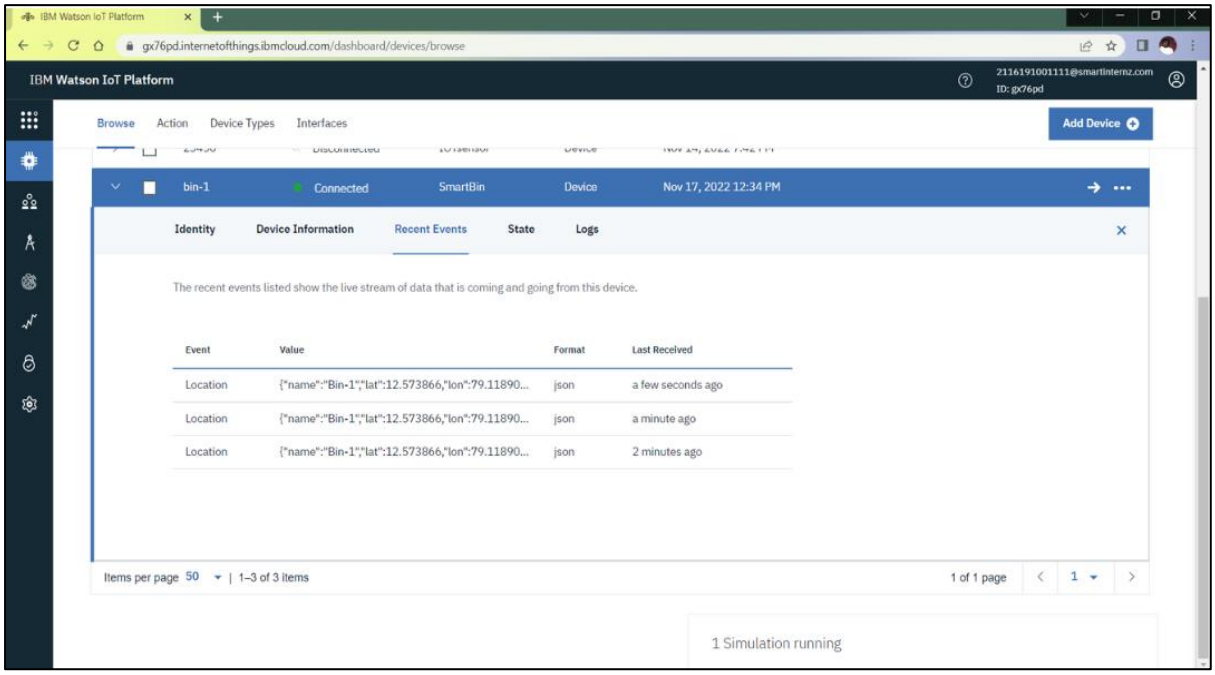
client.disconnect ()

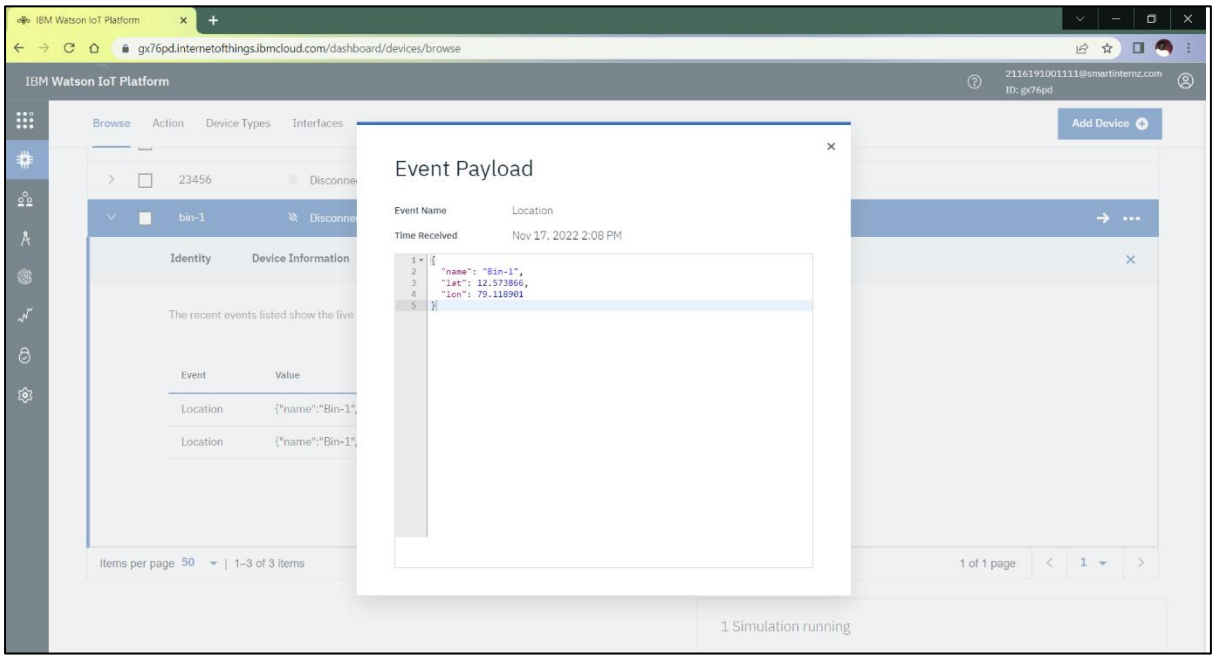
location.py - C:\Users\yogal\Downloads\location.py (3.11.0)

File Edit Format Run Options Window Help

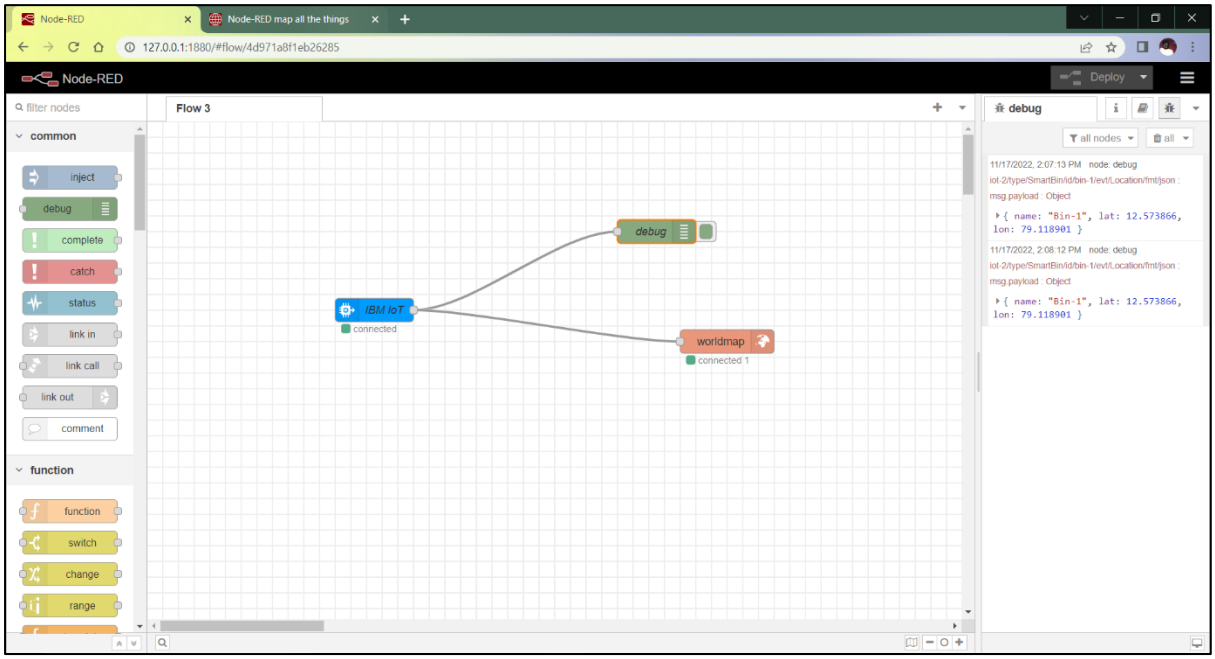
```
import wiotp.sdk.device
import time
import random
import collections.abc

try:
    from collections.abc import MutableMapping
except ImportError:
    from collections import MutableMapping

myConfig = {
"identity": {
"orgId": "gx76pd",
"typeId": "SmartBin",
"deviceId":"bin-1"
},
"auth": {
"token": "ZeskE9*BHtQSqNlICL"
}
}
def myCommandCallback (cmd):
 print ("Message received from IBM IoT Platform: %s" % cmd.data['command'])
m=cmd.data['command']
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
def pub (data):
 client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
print ("Published data Successfully: %s", myData)
while True:
 myData={'name': 'Bin1', 'lat': 13.092677, 'lon': 80.188314}
pub (myData)
time.sleep (3)
client.commandCallback = myCommandCallback
client.disconnect ()
```

Creation of device in IBM Watson platform and running simulation





Node Red platform



Bin Location indicated on World Map