Develop The Web Application Using Node-RED

Date	09 November 2022
Team ID	PNT2022TMID21140
Project Name	Smart waste management system for metropolitan cities
Maximum Marks	8 Marks

Aim: Develop the web application using Node-RED
Steps Followed:

- Opened a Node-RED project
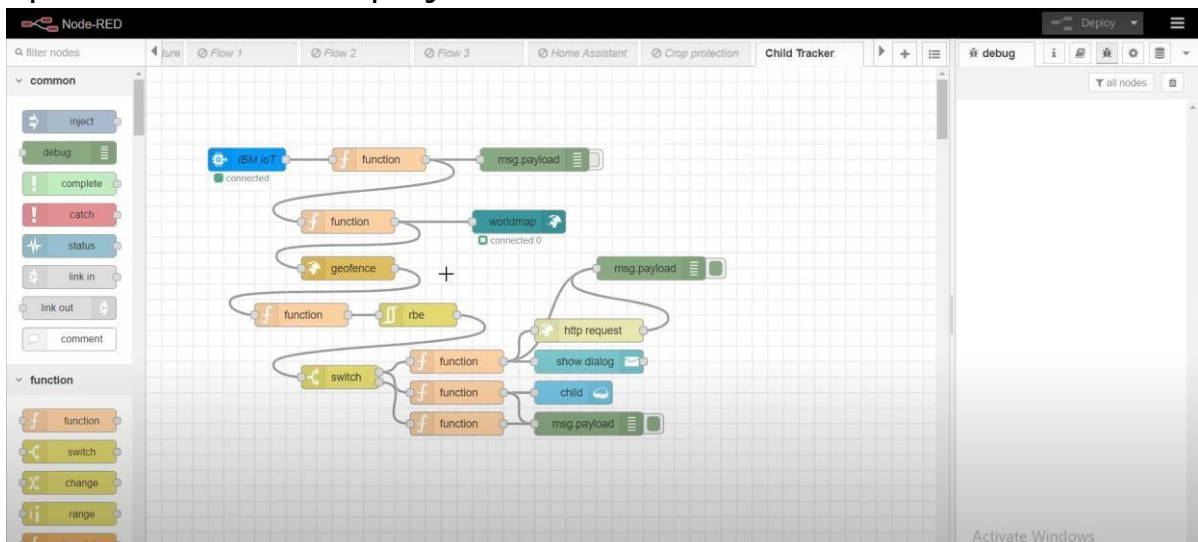
- Added code to get child location in python

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

myConfig = {
    "identity": {
        "orgId": "hj5fmy",
        "typeId": "NodeMCU",
        "deviceId": "12345"
    },
    "auth": {
        "token": "12345678"
    }
}
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()
```
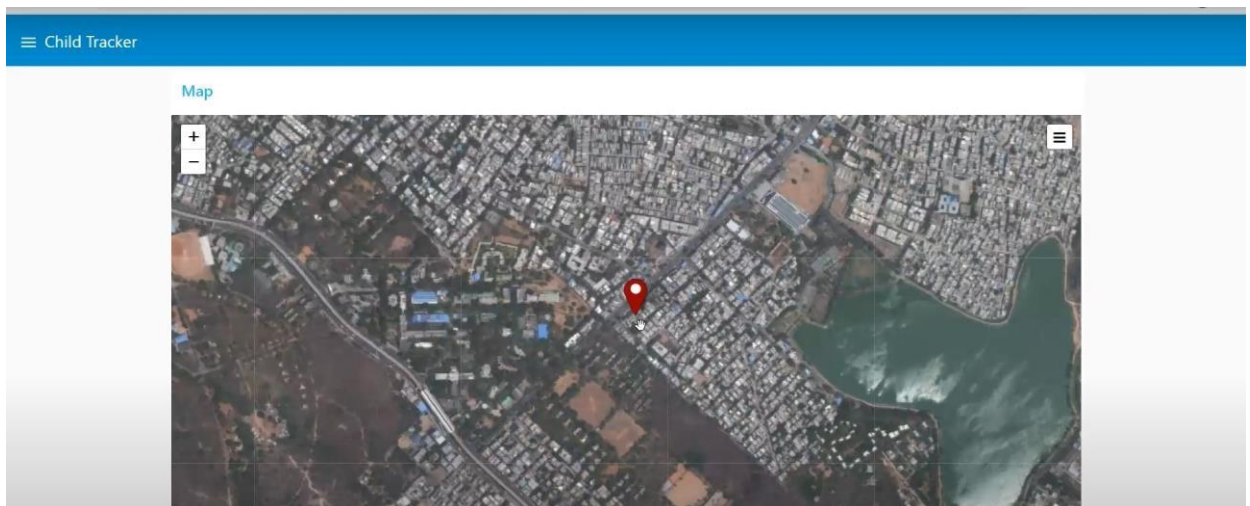
- Editing the HTTP Request URL
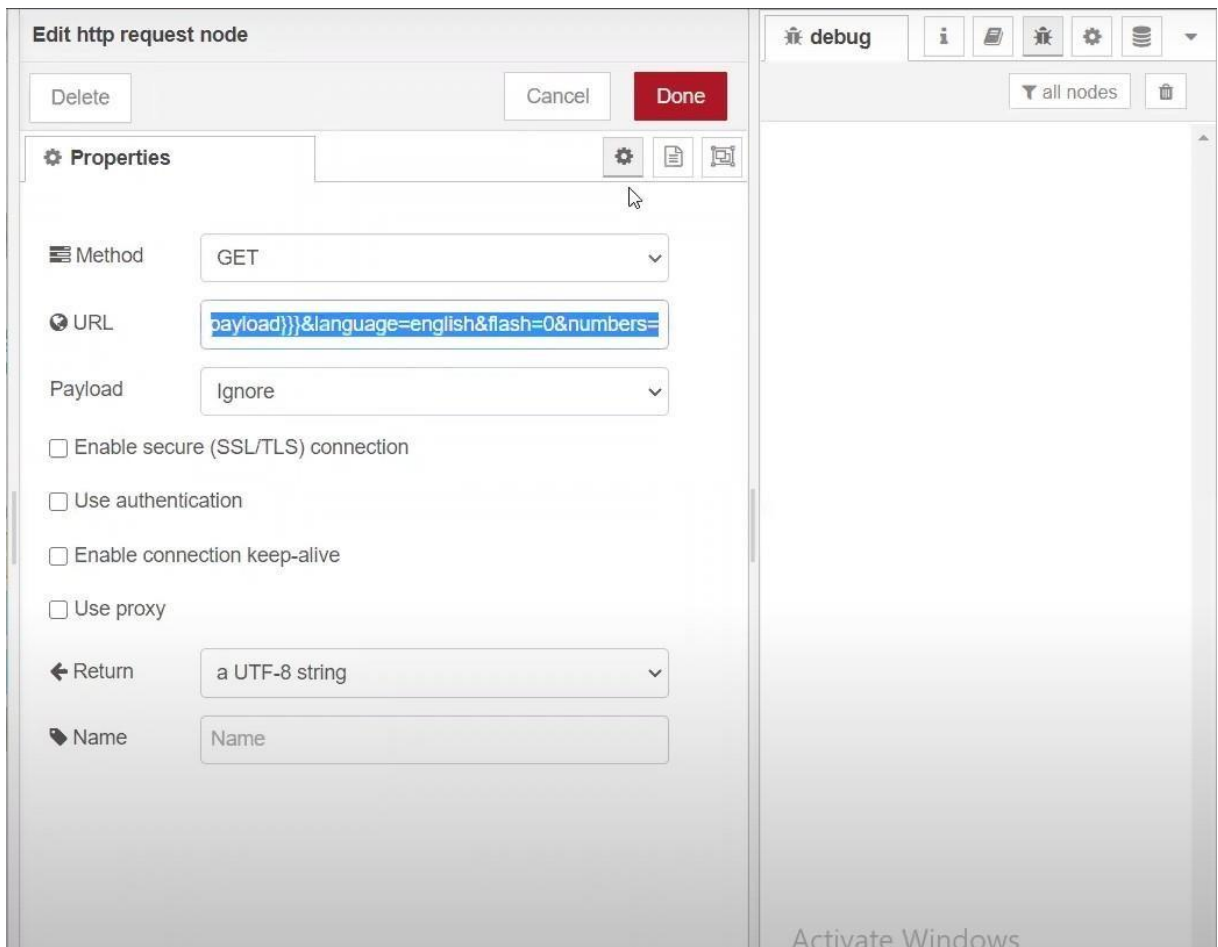
- Located the child

- Python script sending requests to IBM Cloud

```
Editor - C:\Users\HP\Desktop\child.py                                     IPython console
 child.py                                                              Console 2/A
 1 import json                                                    Data published to IBM IoT platfrom:
 2 import wiotp.sdk.device                                        Data published to IBM IoT platfrom:
 3 import time                                                    Data published to IBM IoT platfrom:
 4                                                                 Data published to IBM IoT platfrom:
 5 myConfig = {                                                   Data published to IBM IoT platfrom:
 6     "identity": {                                              Data published to IBM IoT platfrom:
 7         "orgId": "hj5fmy",                                     Data published to IBM IoT platfrom:
 8         "typeId": "NodeMCU",                                   Data published to IBM IoT platfrom:
 9         "deviceId": "12345"                                    Data published to IBM IoT platfrom:
10     },                                                          Data published to IBM IoT platfrom:
11     "auth": {                                                  Data published to IBM IoT platfrom:
12         "token": "12345678"                                    Data published to IBM IoT platfrom:
13     }                                                           Data published to IBM IoT platfrom:
14 }                                                               Data published to IBM IoT platfrom:
15 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)  Data published to IBM IoT platfrom:
16 client.connect()                                               Data published to IBM IoT platfrom:
17                                                                 Data published to IBM IoT platfrom:
18 while True:                                                    Data published to IBM IoT platfrom:
19     name= "Smartbridge"                                        Data published to IBM IoT platfrom:
20     #in area location                                          Data published to IBM IoT platfrom:
21                                                                 Data published to IBM IoT platfrom:
22     #latitude= 17.4225176                                      Data published to IBM IoT platfrom:
23     #longitude= 78.5458842                                     Data published to IBM IoT platfrom:
24                                                                 Data published to IBM IoT platfrom:
25     #out area location                                         Data published to IBM IoT platfrom:
26                                                                 Data published to IBM IoT platfrom:
27     latitude= 17.4219272                                       Data published to IBM IoT platfrom:
28     longitude= 78.5488783                                      Data published to IBM IoT platfrom:
29     myData={'name': name, 'lat':latitude,'lon':longitude}      Data published to IBM IoT platfrom:
30     client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPub  Data published to IBM IoT platfrom:
31     print("Data published to IBM IoT platfrom: ",myData)       Data published to IBM IoT platfrom:
32     time.sleep(5)                                              Data published to IBM IoT platfrom:
33                                                                 Data published to IBM IoT platfrom:
34 client.disconnect()                                            Data published to IBM IoT platfrom:
35                                                                 Data published to IBM IoT platfrom:
36                                                                 Data published to IBM IoT platfrom:
```

- After running the script, the web UI shows "Person is not in the particular area"

Result: Successfully developed the web application using Node-RED