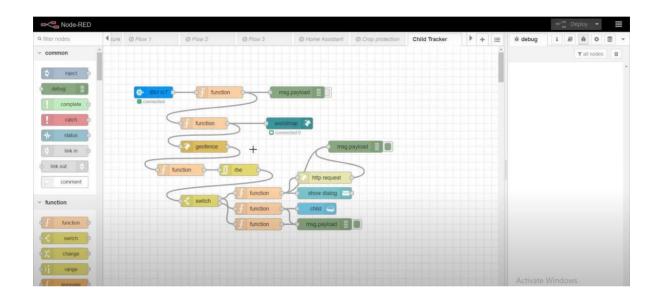
Developing Web Application Using Node-RED

Aim: Develop the web application using Node-RED

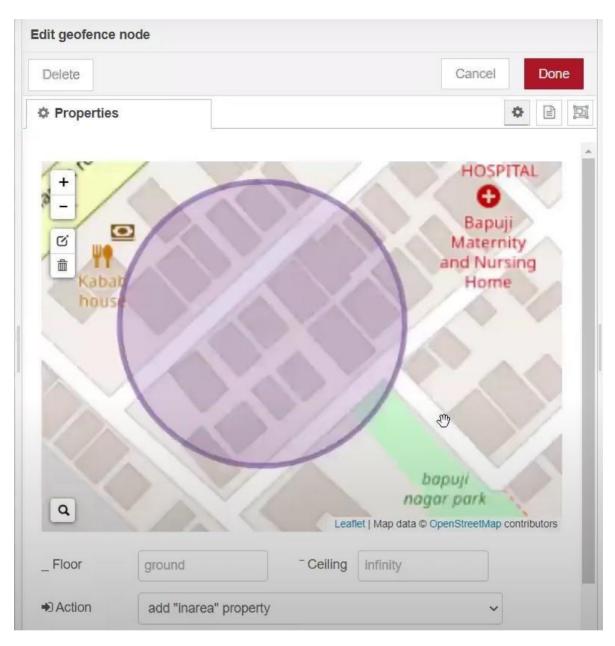
Steps Followed:

Opened a Node-RED project:



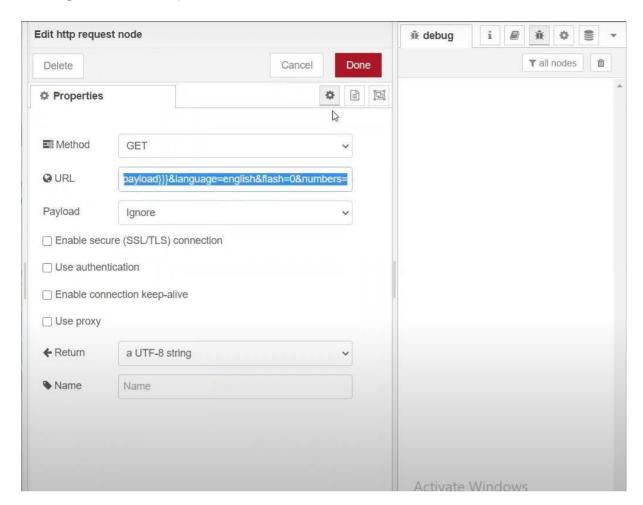
Add code in python to track child location:

```
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()
```

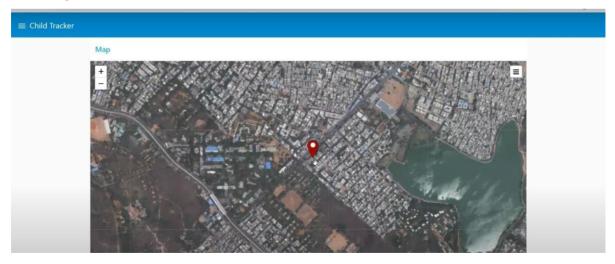


• Create the GeoFence

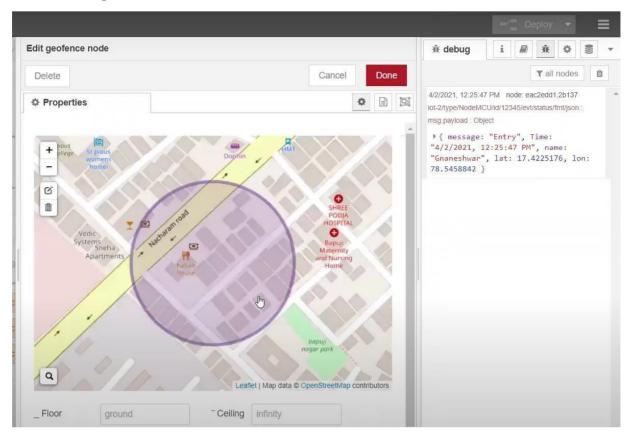
• Editing the HTTP Request URL:



• Locating the child:



• Created the geofence node:



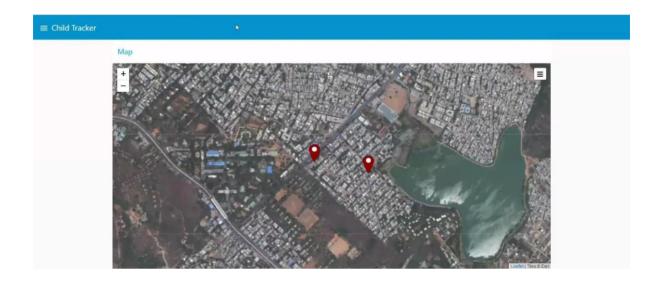
• Python script sending requests to IBM Cloud:

```
Editor - C:\Users\HP\Desktop\child.py
                                                                                                  X IPython console
child.py
                                                                                                          Console 2/A 🔯
                                                                                                      Data published to IBM IoT platfrom:
1 import json
                                                                                                      Data published to IBM IoT platfrom:
   2 import wiotp.sdk.device
3 import time
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
   5 myConfig = {
                                                                                                      Data published to IBM IoT platfrom:
          "identity": {

"orgId": "hj5fmy",

"typeId": "NodeMCU",
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
             "deviceId": "12345'
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
          'auth": {
  11
                                                                                                      Data published to IBM IoT platfrom:
              "token": "12345678"
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
  15 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
  18 while True:
                                                                                                      Data published to IBM IoT platfrom:
         name= "Smartbridge"
                                                                                                      Data published to IBM IoT platfrom:
         #in area location
                                                                                                      Data published to IBM IoT platfrom:
  21
                                                                                                      Data published to IBM IoT platfrom:
         #latitude= 17.4225176
                                                                                                      Data published to IBM IoT platfrom:
  23
         #longitude= 78.5458842
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
         #out area location
                                                                                                      Data published to IBM IoT platfrom:
  26
27
                                                                                                      Data published to IBM IoT platfrom:
         latitude= 17.4219272
                                                                                                      Data published to IBM IoT platfrom:
         longitude= 78.5488783
         myData={'name': name, 'lat':latitude,'lon': longitude}
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
print("Data published to IBM IoT platfrom: ",myData)
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
         time.sleep(5)
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      Data published to IBM IoT platfrom:
  34 client.disconnect()
                                                                                                      Data published to IBM IoT platfrom:
                                                                                                      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