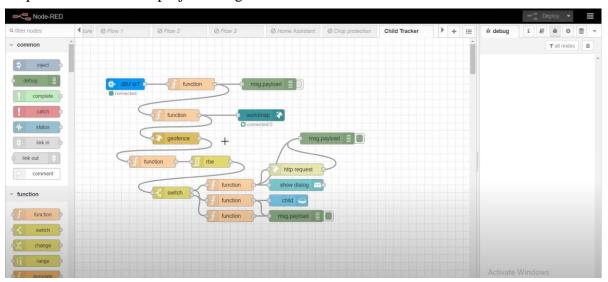
## **Develop A Web Application Using NODE-RED**

Date	30 October 2022
Team ID	PNT2022TMID48274
Project Name	IoT Based Safety Gadget For Child Safety Monitoring & Notification.
Maximum Marks	2 Marks

### **Develop The Web Application Using Node-RED:**

### **Steps:**

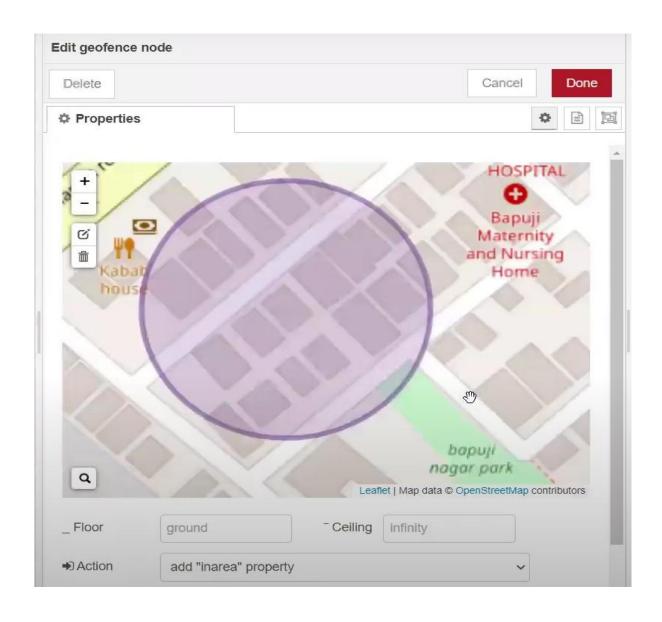
1.Opened a Node-RED project using the link.



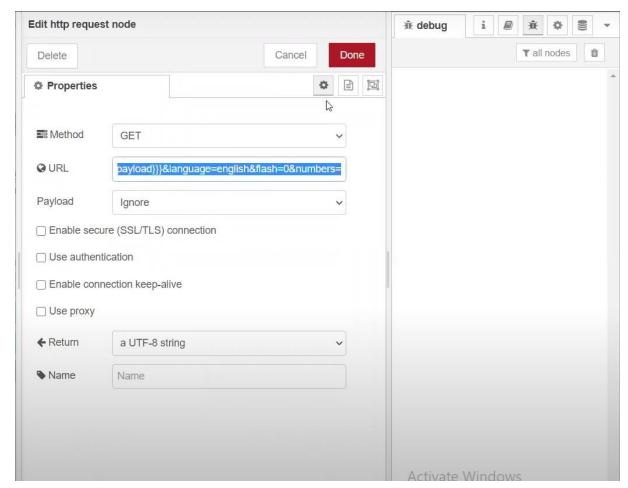
### 2.Added code to get child location in python

```
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()
```

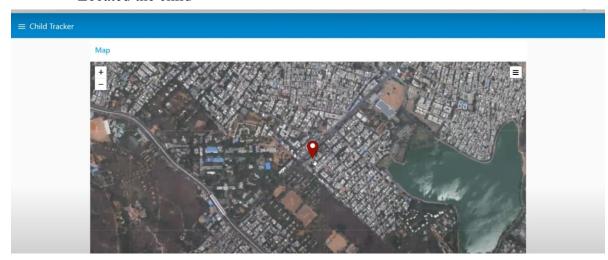
3. Created the Geofence using the geofence node edit and click done



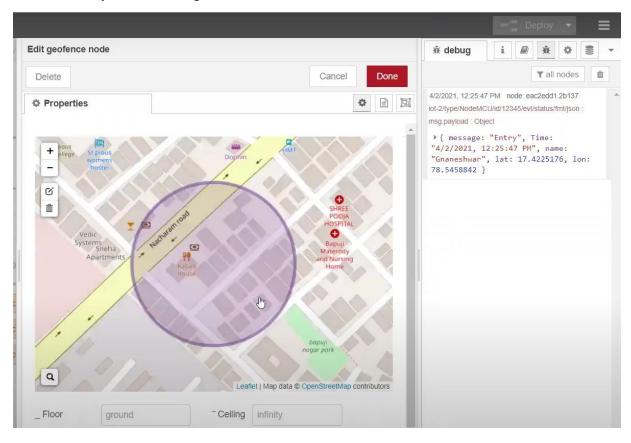
### 4. Editing the HTTP Request URL



#### • Located the child



5. Successfully Created the geofence node and the location of child will be notified.



#### 6.Python script sending requests to IBM Cloud

```
Editor - C:\Users\HP\Desktop\child.py
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
                                                                                                  Data published to IBM IoT platfrom:
   3 import time
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
   5 myConfig = {
         "identity": {
    "orgId": "hj5fmy",
    "typeId": "NodeMCU",
    "deviceId": "12345"
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
  10
                                                                                                  Data published to IBM IoT platfrom:
          auth": {
             "token": "12345678"
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  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:
                                                                                                  Data published to IBM IoT platfrom:
  18 while True:
                                                                                                  Data published to IBM IoT platfrom:
        name= "Smartbridge"
                                                                                                  Data published to IBM IoT platfrom:
  20
        #in area location
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  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:
                                                                                                  Data published to IBM IoT platfrom:
 27
28
         latitude= 17.4219272
                                                                                                  Data published to IBM IoT platfrom:
        longitude= 78.5488783
myData={'name': name, 'lat':latitude,'lon':longitude}
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
         client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPub
                                                                                                  Data published to IBM IoT platfrom:
         print("Data published to IBM IoT platfrom: ",myData)
                                                                                                  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:
  36
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
                                                                                                  Data published to IBM IoT platfrom:
```

7.After running the script, the web UI shows that the "Person is not in the particular area".



# **Result:**

Successfully develope a web application using Node-RED was created.