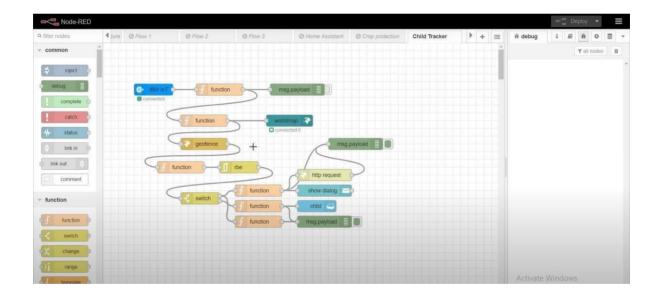
Developing Web Application Using Node-RED

Date	11-11-2022
Team ID	PNT2022TMID42919
Project Name	IoT Based Safety Gadget for Child
	Safety Monitoring & Notification

Aim: Develop the web application using Node-RED

Steps Followed:

Opened a Node-RED project:



Add code in python to track child location:

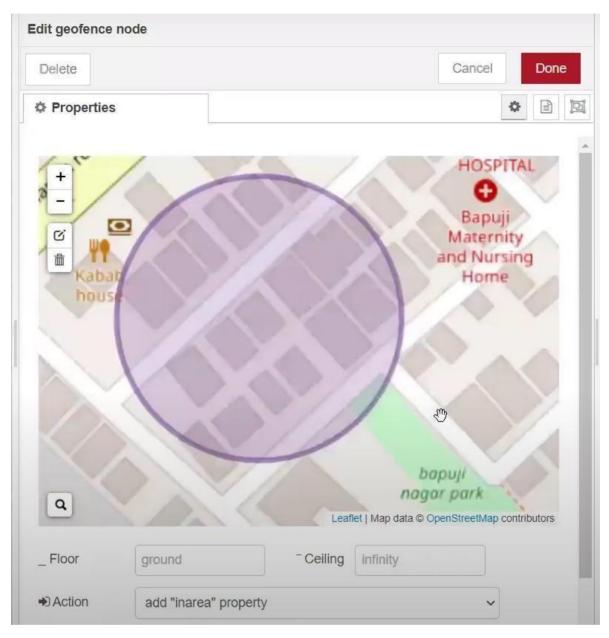
```
import json
import wiotp.sdk.device
import time

myConfig = {
    "identity": {
        "orgId": "hj5fmy",
        "typeId": "NodeMcU",
        "deviceId": "12345"
},
    "auth": {
        "token": "12345678"
}
} client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

Thile True:
    name "Smartbridge"
    #in area location
    latitude= 17.4225176
    longitude= 78.5458842
    #out area location

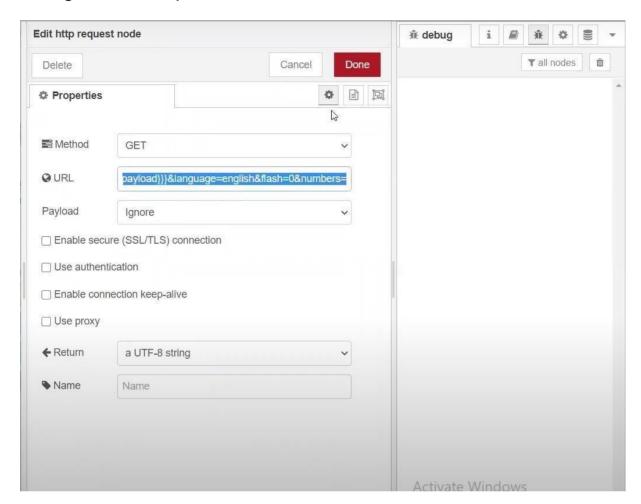
    #latitude= 17.4219272
    #longitude= 78.5458873
    myData=('name': name, 'lat':latitude, 'lon':longitude)
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Data published to IBM IoT platfrom: ",myData)

client.disconnect()
```

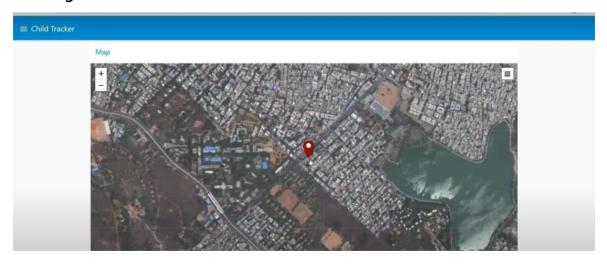


• Create the GeoFence

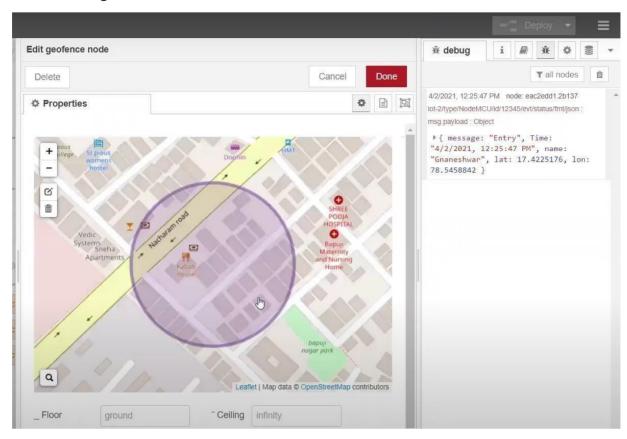
• Editing the HTTP Request URL:



• Locating the child:



• Created the geofence node:



• Python script sending requests to IBM Cloud:

```
Console 2/A 🖸
child.py 🛛
                                                                                                               Data published to IBM IoT platfrom:
   1 import json
2 import wiotp.sdk.device
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
    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:
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
                                                                                                               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 }
15 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
  16 client.connect()
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
 18 while True:
19 name= "Smartbridge"
20 #in area location
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
 21
                                                                                                               Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
 22
         #Latitude= 17.4225176
         #longitude= 78.5458842
                                                                                                               Data published to IBM IoT platfrom:
 24
                                                                                                               Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
         #out area location
 26
                                                                                                               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}
 28
                                                                                                               Data published to IBM IoT platfrom:
         rint("Data published to IBM IoT platfrom: ",myData)
                                                                                                               Data published to IBM IoT platfrom:
  30
                                                                           , data=myData, qos=0, onPub
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               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:
                                                                                                               Data published to IBM IoT platfrom:
                                                                                                               Data published to IBM IoT platfrom:
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