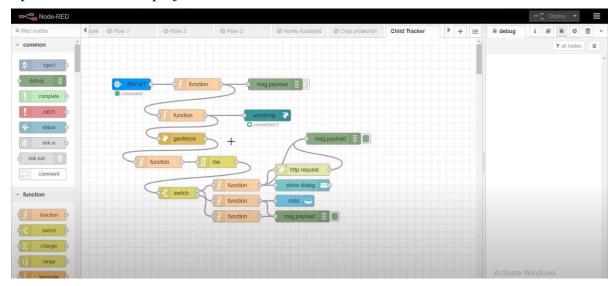
Develop A Web Application Using Node-RED

Date	26 October 2022
Team ID	PNT2022TMID16777
	Project - IoT Based Safety Gadget For Child Safety Monitoring & Notification
Maximum Marks	2 Marks

Steps Followed:

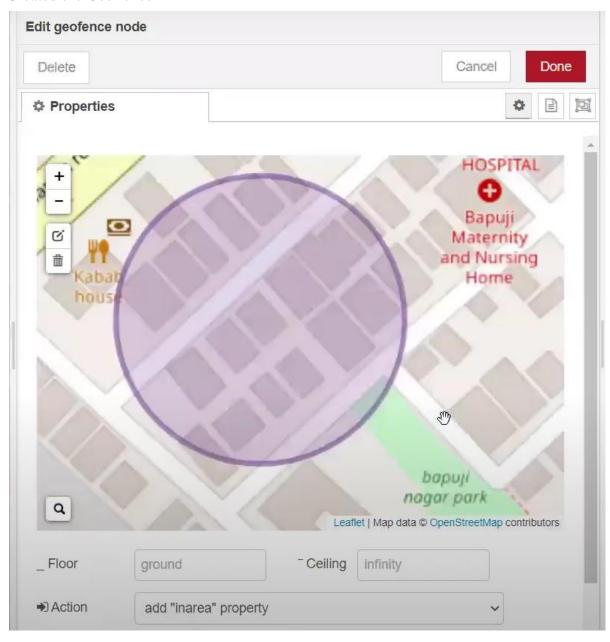
• Opened a Node-RED project



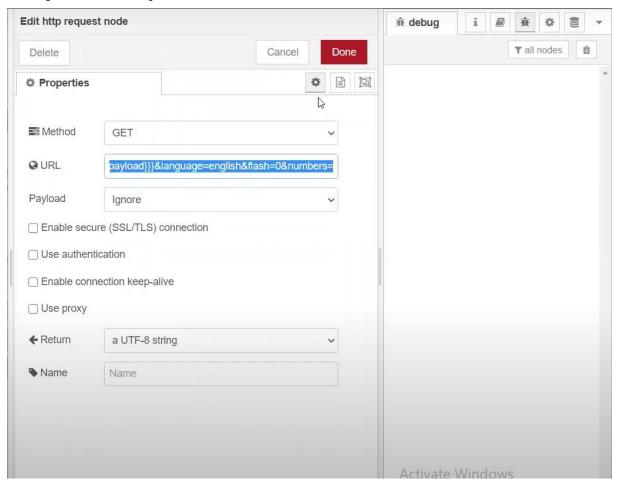
Added code to get child location in python

```
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()
```

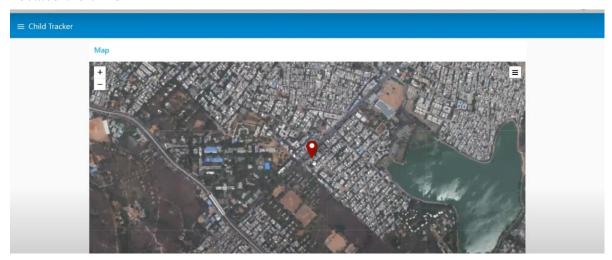
• Created the GeoFence



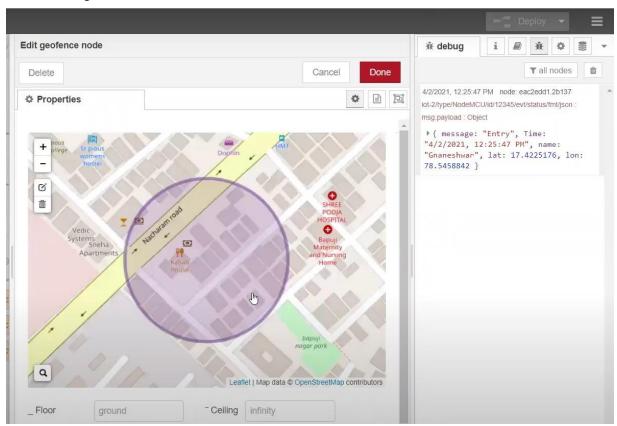
• Editing the HTTP Request URL



• Located the child



• Created the geofence node



• 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:
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:
   5 myConfig = {
         "identity": {
    "orgId": "hj5fmy",
    "typeId": "NodeMCU",
                                                                                                           Data published to IBM IoT platfrom:
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:
  10
                                                                                                            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:
  14}
                                                                                                            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:
19 name= "Smartbridge"
                                                                                                            Data published to IBM IoT platfrom:
                                                                                                            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:
                                                                                                            Data published to IBM IoT platfrom:
  24
25
                                                                                                            Data published to IBM IoT platfrom:
         #out area Location
                                                                                                            Data published to IBM IoT platfrom:
  26
                                                                                                            Data published to IBM IoT platfrom:
         latitude= 17.4219272
                                                                                                           Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
  28
         longitude= 78.5488783
         Inngitude 76:346763 myData={'name': name, 'lat':latitude,'lon': longitude} client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPub 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:
         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:
```

• After running the script, the web UI shows "Person is not in theparticular area"



Result: Successfully developed a web application using Node-RED