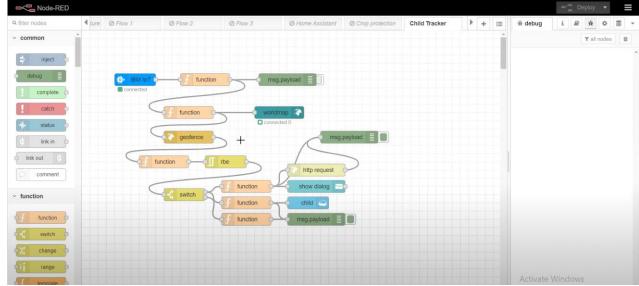
Develop A Web Application Using Node-RED

Date	28 October 2022
Project Name	Project - IoT Based Safety Gadget For Child
	Safety Monitoring & Notification
Maximum Marks	2 Marks

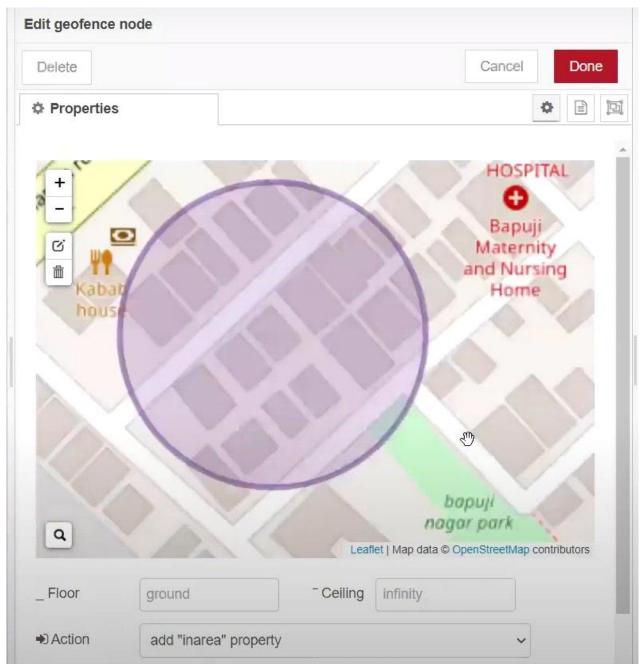
Steps Followed:



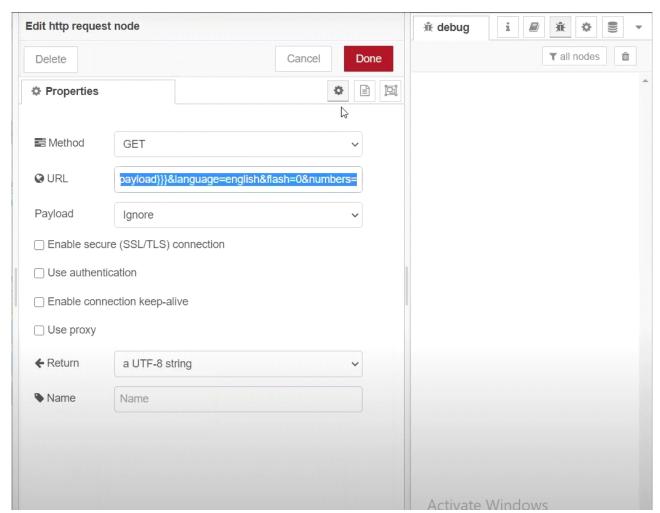
Opened a Node-RED project

• 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()
```

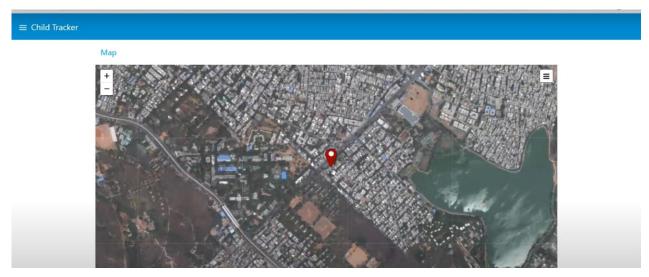


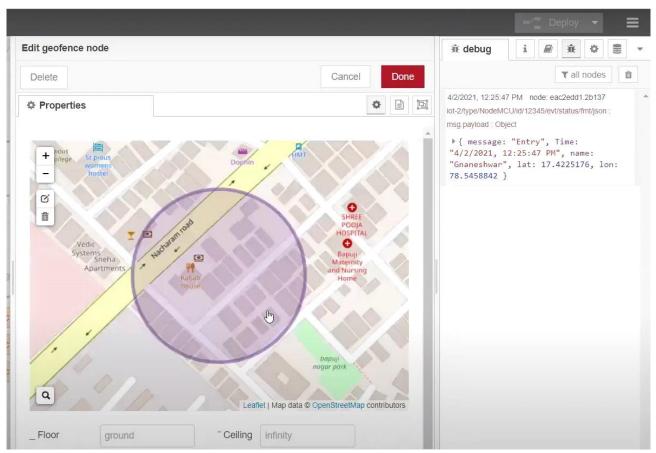
Created the GeoFence



Editing the HTTP Request URL

• Located the child

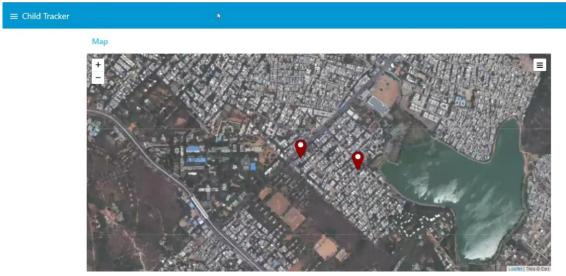




Created the geofence node

• Python script sending requests to IBM Cloud

```
₽ × IPython console
Editor - C:\Users\HP\Desktop\child.py
                                                                                           Console 2/A 🛛
child.py
                                                                                               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 = {
                                                                                              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:
 10
                                                                                               Data published to IBM IoT platfrom:
         "auth": {
 11
                                                                                               Data published to IBM IoT platfrom:
             "token": "12345678"
 12
                                                                                              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:
                                                                                               Data published to IBM IoT platfrom:
 18 while True:
                                                                                               Data published to IBM IoT platfrom:
 19
        name= "Smartbridge"
                                                                                               Data published to IBM IoT platfrom:
        #in area location
 20
                                                                                               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:
        myData={'name': name, 'lat':latitude,'lon':longitude}
 29
                                                                                               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:
        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