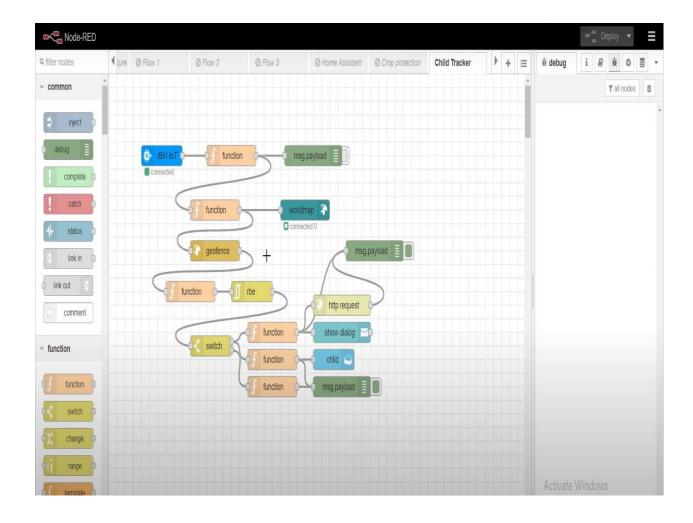
Develop A Web Application Using Node-RED

Date	08 November 2022
Team ID	PNT2022TMID51128
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

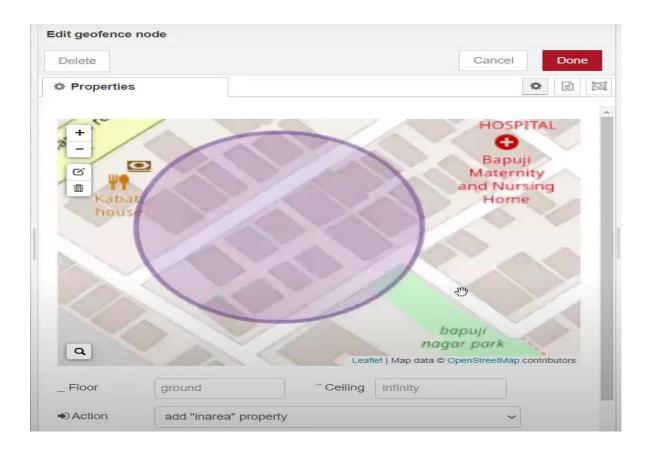
myConfig = {
    "identity": {
        "orgId": "hj5fmy",
        "typeId": "NodeMcU",
        "deviceId": "12345"
},
    "auth": {
        "token": "12345678"
}
}
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

fhile True:
    name= "Smartbridge"
    fin area location
    latitude= 17.4225176
    longitude= 78.5458842
    fout area location

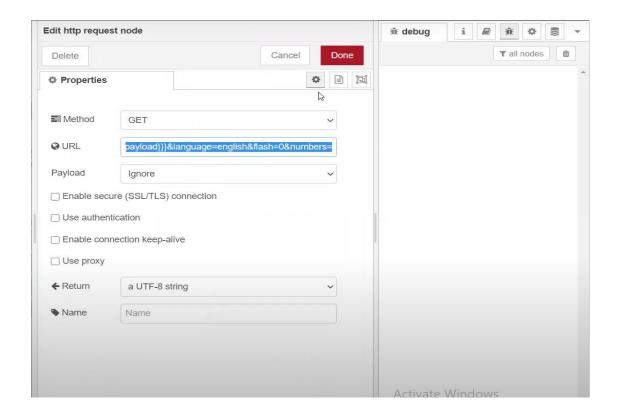
    flatitude= 17.421972
    flongitude= 78.5488783
    myData={'name': name, 'lat':latitude, 'lon':longitude)
        client.publishEvent(eventid="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Data published to IBM IoT platfrom: ",myData)

client.disconnect()
```

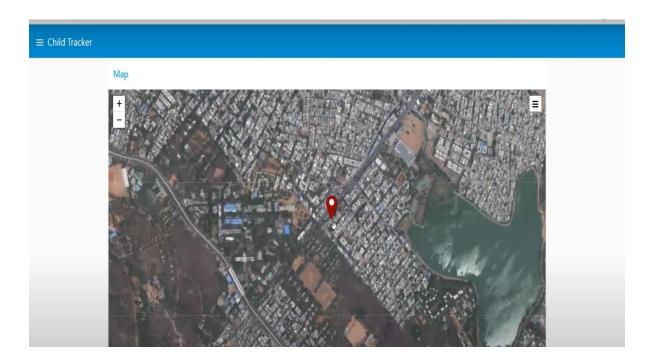
> Created the GeoFence



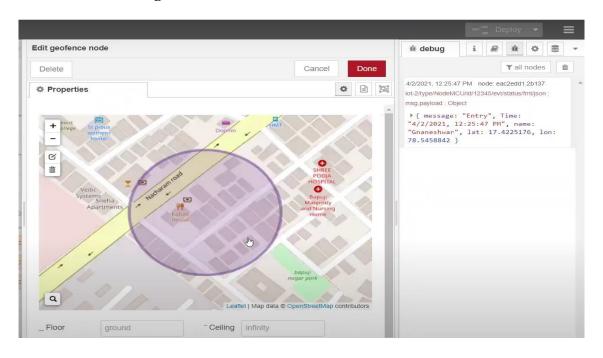
> Editing the HTTP Request URL



> Located the child



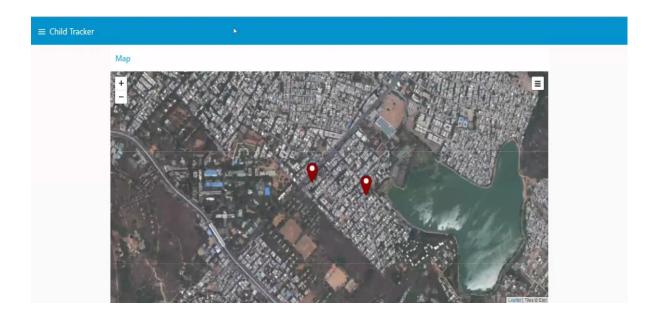
> Created the geofence node



Python script sending requests to IBM Cloud

```
Editor - C:\Users\HP\Desktop\child.py
                                                                                                     ₽ × 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
                                                                                                           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:
              "deviceId": "12345"
                                                                                                          Data published to IBM IoT platfrom:
                                                                                                           Data published to IBM IoT platfrom:
  10
                                                                                                           Data published to IBM IoT platfrom:
          auth": {
                                                                                                          Data published to IBM IoT platfrom:
              "token": "12345678"
  12
                                                                                                           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:
  16 client.connect()
                                                                                                           Data published to IBM IoT platfrom:
  18 while True:
                                                                                                           Data published to IBM IoT platfrom:
         name= "Smartbridge"
                                                                                                          Data published to IBM IoT platfrom:
  20
21
         #in area location
                                                                                                           Data published to IBM IoT platfrom:
                                                                                                           Data published to IBM IoT platfrom:
         #Latitude= 17.4225176
                                                                                                           Data published to IBM IoT platfrom:
  23
24
         #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
                                                                                                           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, onPub
print("Data published to IBM IoT platfrom: ",myData)
  28
                                                                                                           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:
  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 the particular area".



<u>Result</u>: Successfully created a web application with Node-RED.