

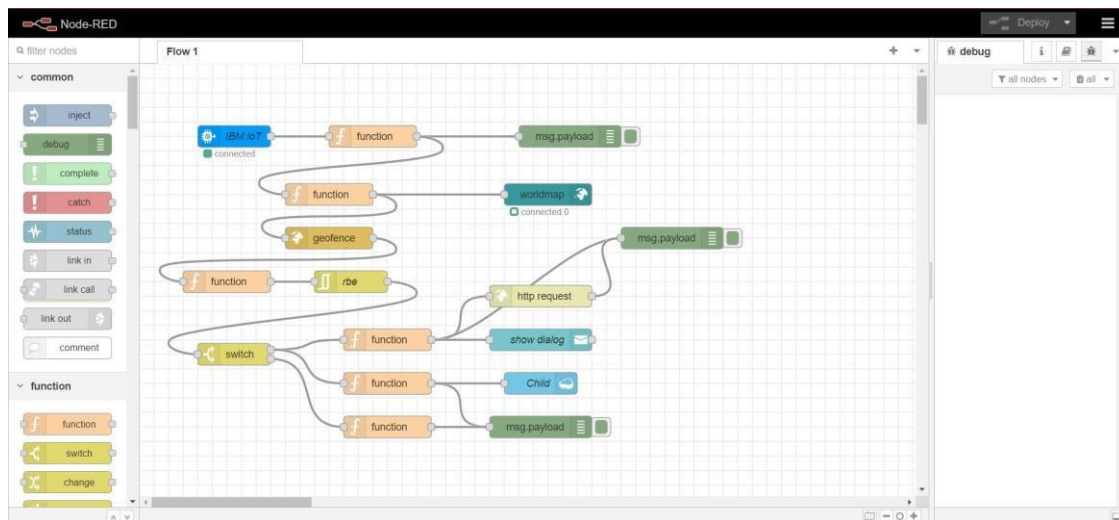
Develop The Web Application Using Node-RED

IoT Based Safety Gadget for Child Safety Monitoring and Notification

Aim: Develop the web application using Node-RED

Steps Followed:

- Opened a Node-RED project



- Added code to get child location in python

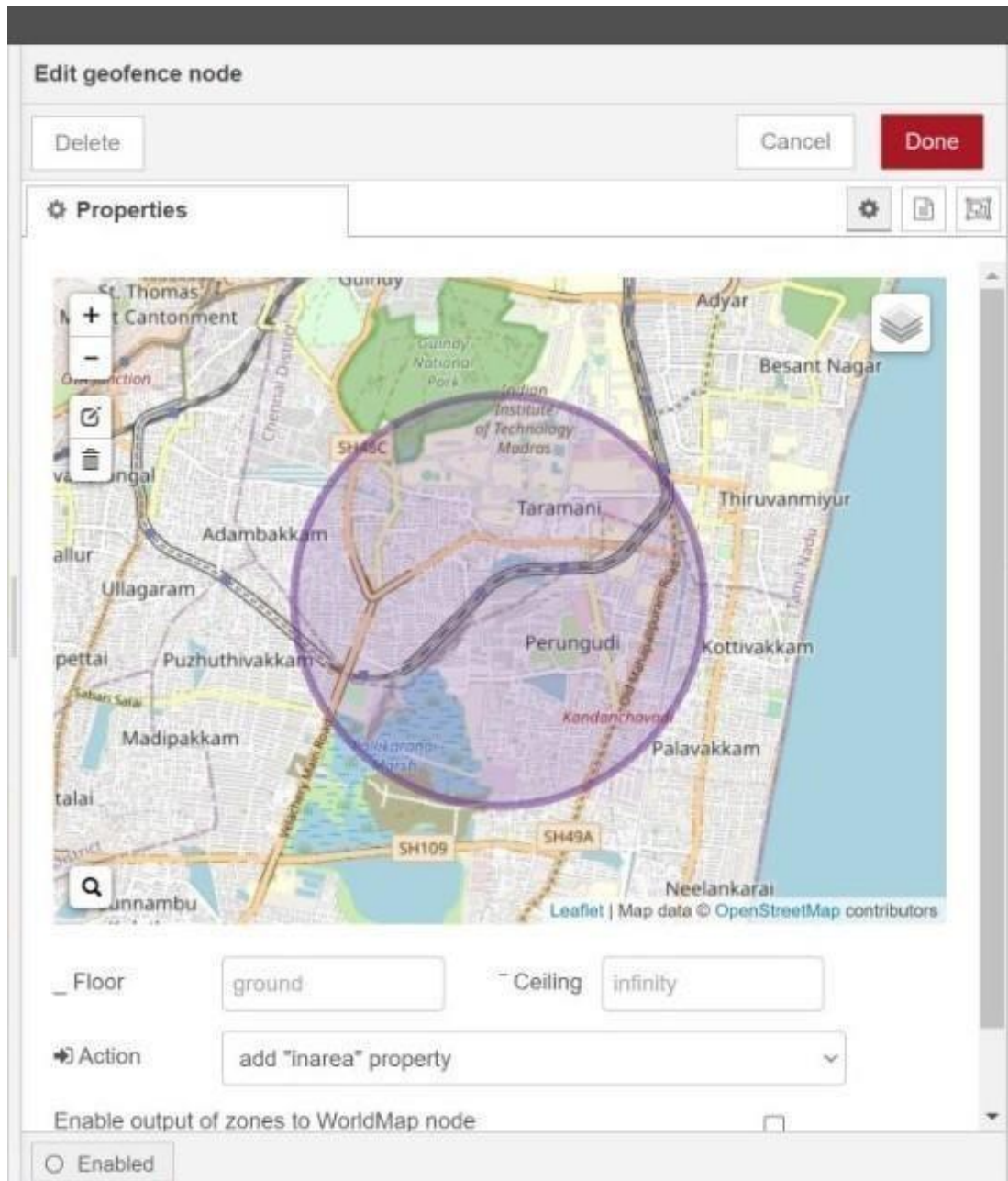
```
child.py - C:\Users\Anu\AppData\Local\Programs\Python\Python37\child.py (3.7.0)
File Edit Format Run Options Window Help
import json
import wiotp.sdk.device
import time
myConfig = {
    "identity": {
        "orgId": "401qxb",
        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhXv2N-c9M8Kv4hxyi"
    }
}
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    name = "Smartbridge"
    #in area location
    latitude = 17.4225176
    longitude = 78.5456842

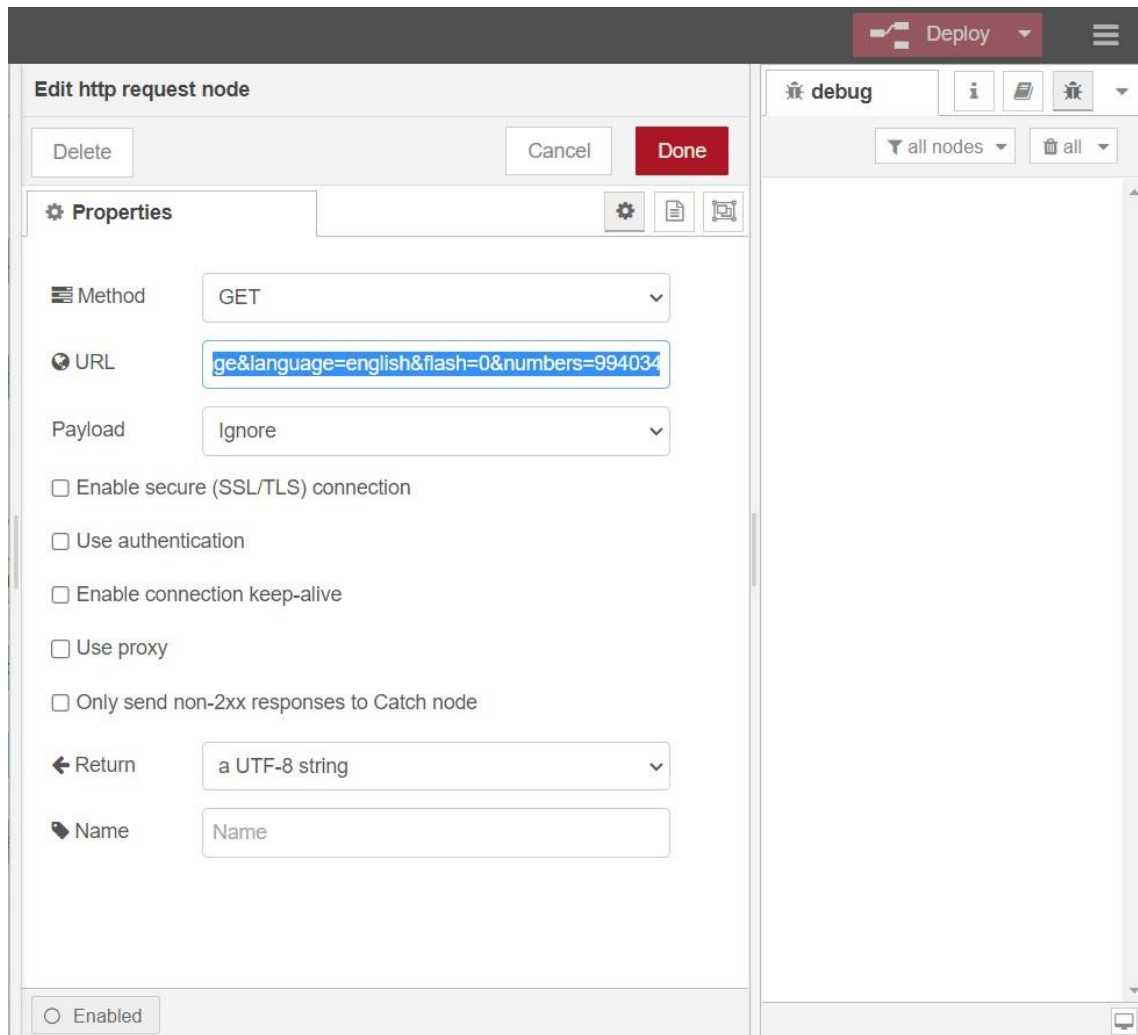
    #out area location
    #latitude 17.4219272
    #longitude 78.5488783
    myData = {'name': name, 'lat': latitude, 'lon': longitude}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Data published to IBM IoT platform: ", myData)
    time.sleep(5)

client.disconnect()
```

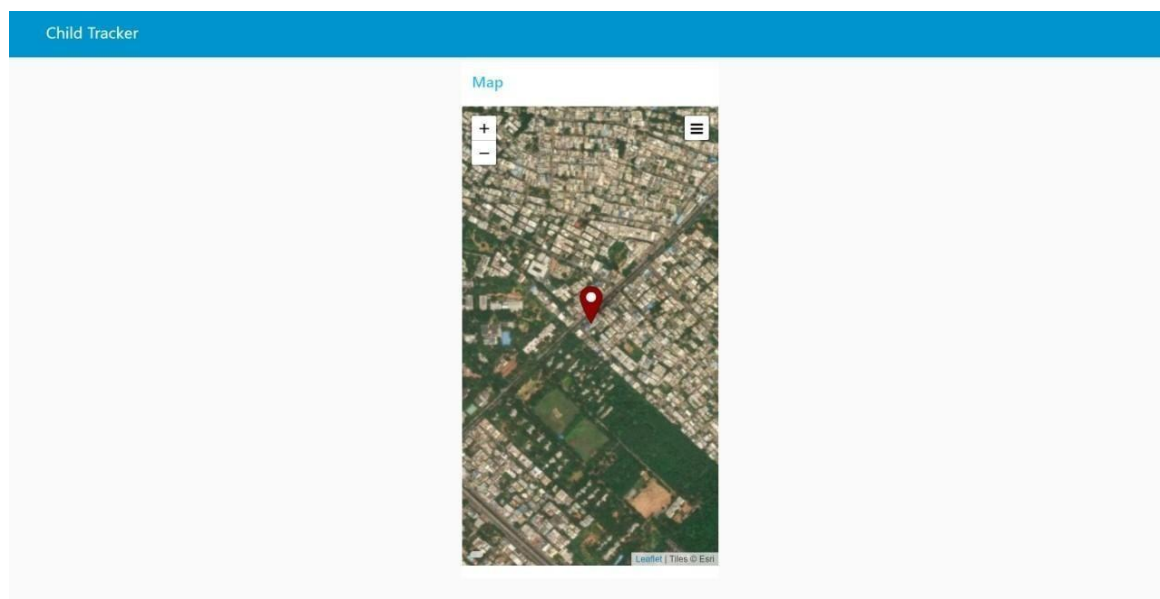
Created the GeoFence



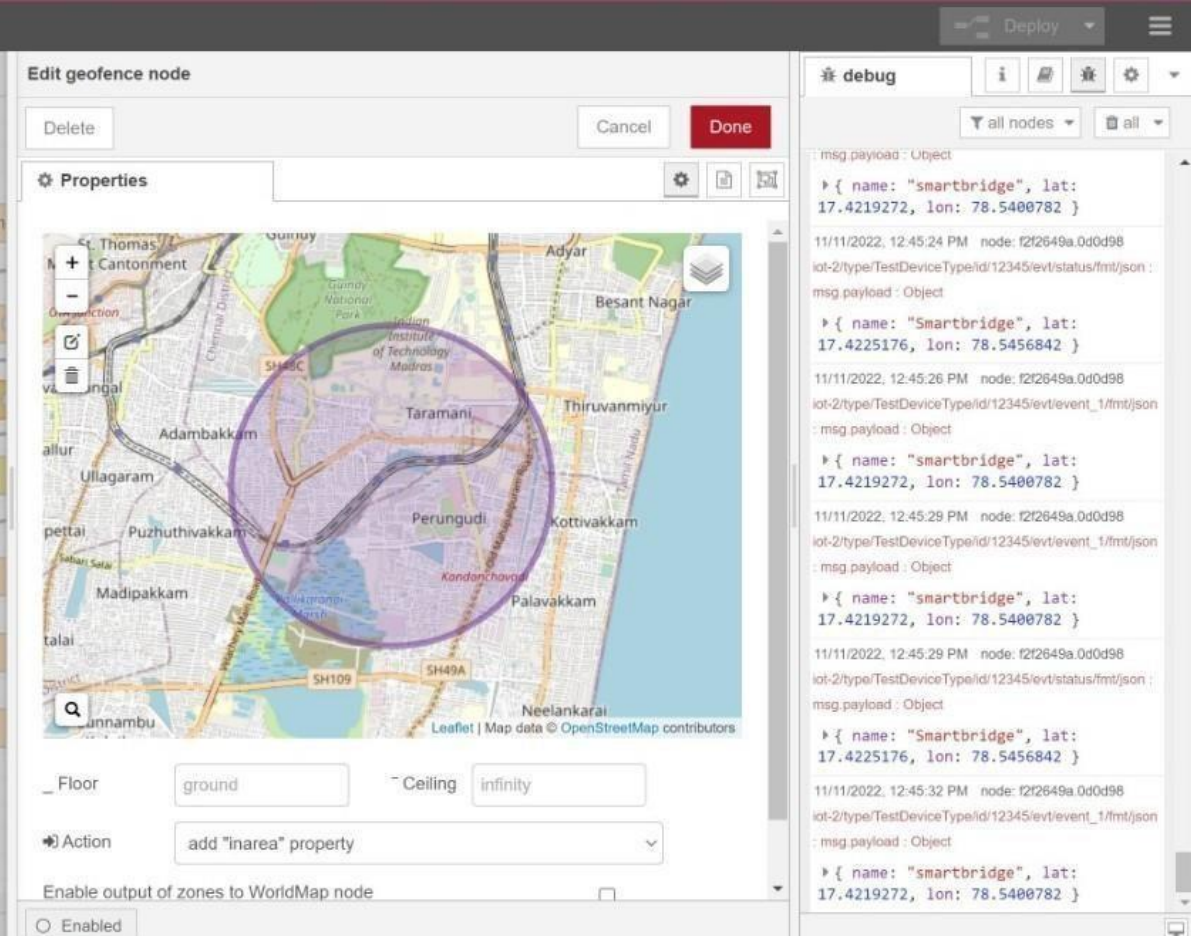
Editing the HTTP Request URL



- Located the child



Created the geofence node

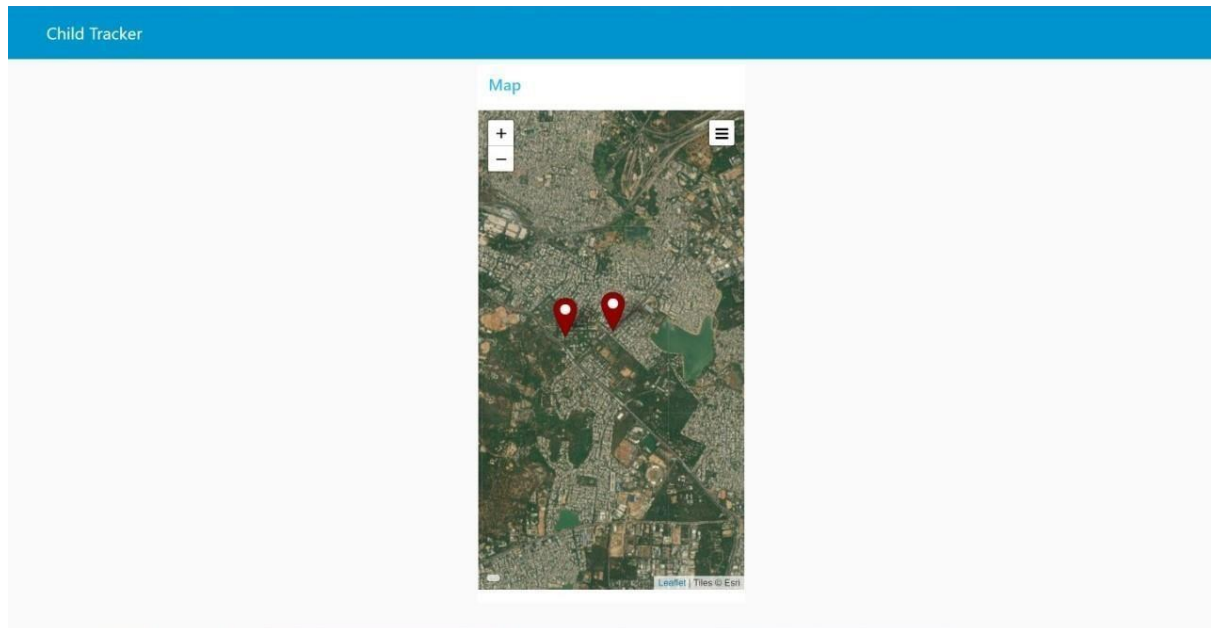


The screenshot displays the 'Edit geofence node' interface. The main map shows a geofence polygon in the Taramani area of Chennai. The 'Properties' panel on the left includes a 'Delete' button, 'Cancel', and 'Done' buttons. Below these are icons for settings, a map, and a list. The 'Properties' section has a 'Floor' dropdown set to 'ground' and a 'Ceiling' dropdown set to 'infinity'. The 'Action' dropdown is set to 'add "inarea" property'. There is a checkbox for 'Enable output of zones to WorldMap node' which is currently unchecked. The 'debug' panel on the right shows a log of messages, including the geofence's name 'smartbridge' and its coordinates (17.4219272, 78.5400782).

Python script sending requests to IBM Cloud

```
child.py - C:\Users\Anu\AppData\Local\Programs\Python\Python37\child.py (3.7.0)
File Edit Format Run Options Window Help
import json
import wiotp.edk.device
import time
myConfig = {
    "identity": {
        "orgId": "401gxb",
        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhXvztI-s0MKvshxyl"
    }
}
client = wiotp.edk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
    name = "Smartbridge"
    #in area location
    #latitude = 17.4225176
    #longitude = 78.5456842
    #out area location
    latitude = 17.4219272
    longitude = 78.5400782
    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 platform: ", myData)
    time.sleep(5)
client.disconnect()
```

- After running the script, the web UI shows “Person is not in the particular area”



Result: Successfully developed the web application using Node-RED