

Develop The Web Application Using Node-RED

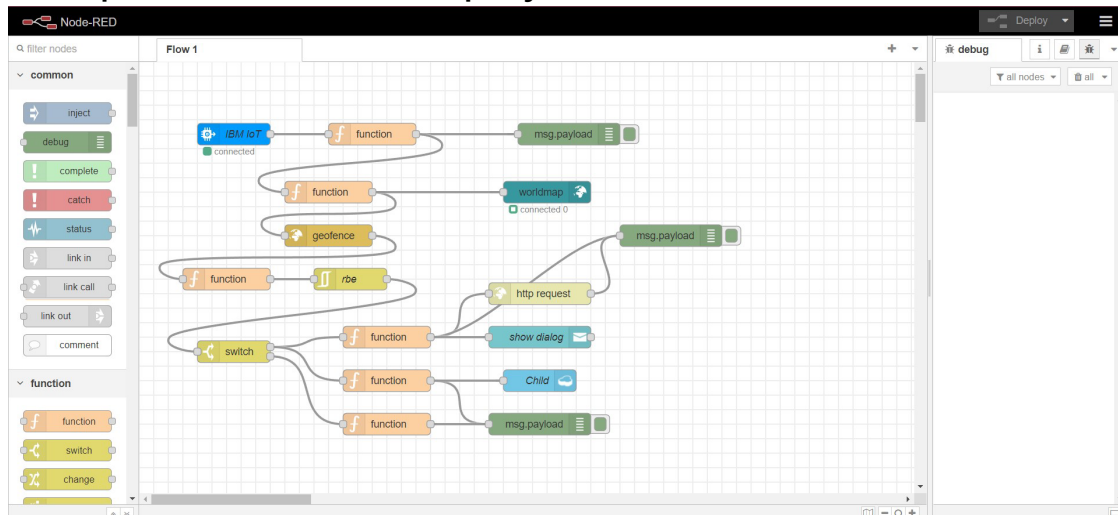
IoT Based Safety Gadget for Child Safety Monitoring and Notification

Team ID : PNT2022TMID34328

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": "4olqab",
        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhXv2N-s8M6v+hxyi"
    }
}
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

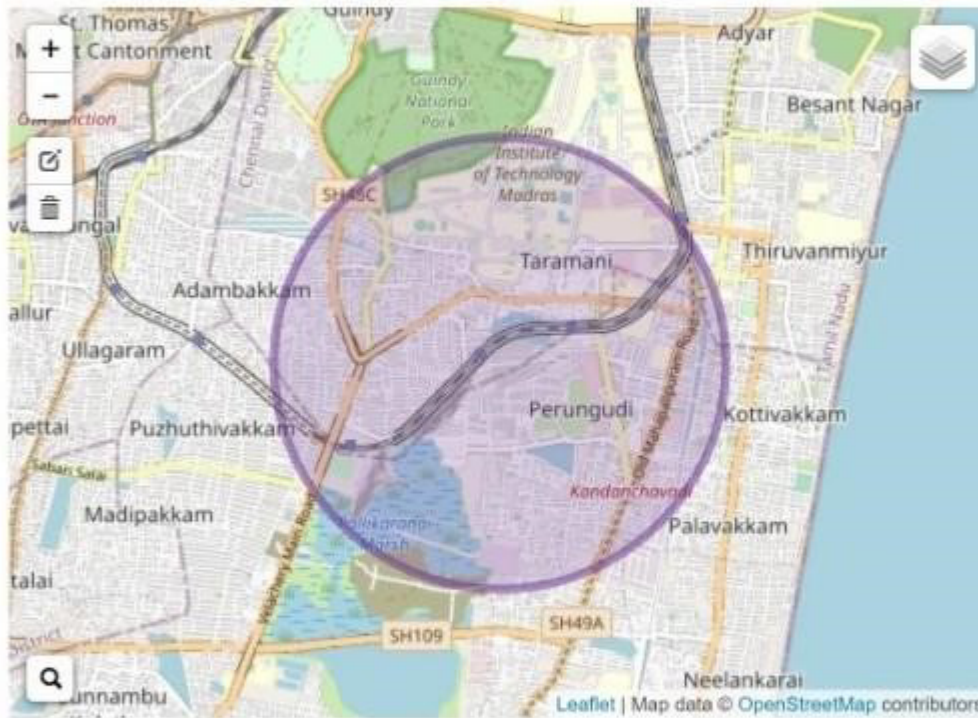
Edit geofence node

Delete

Cancel

Done

Properties



_ Floor

ground

_ Ceiling

infinity

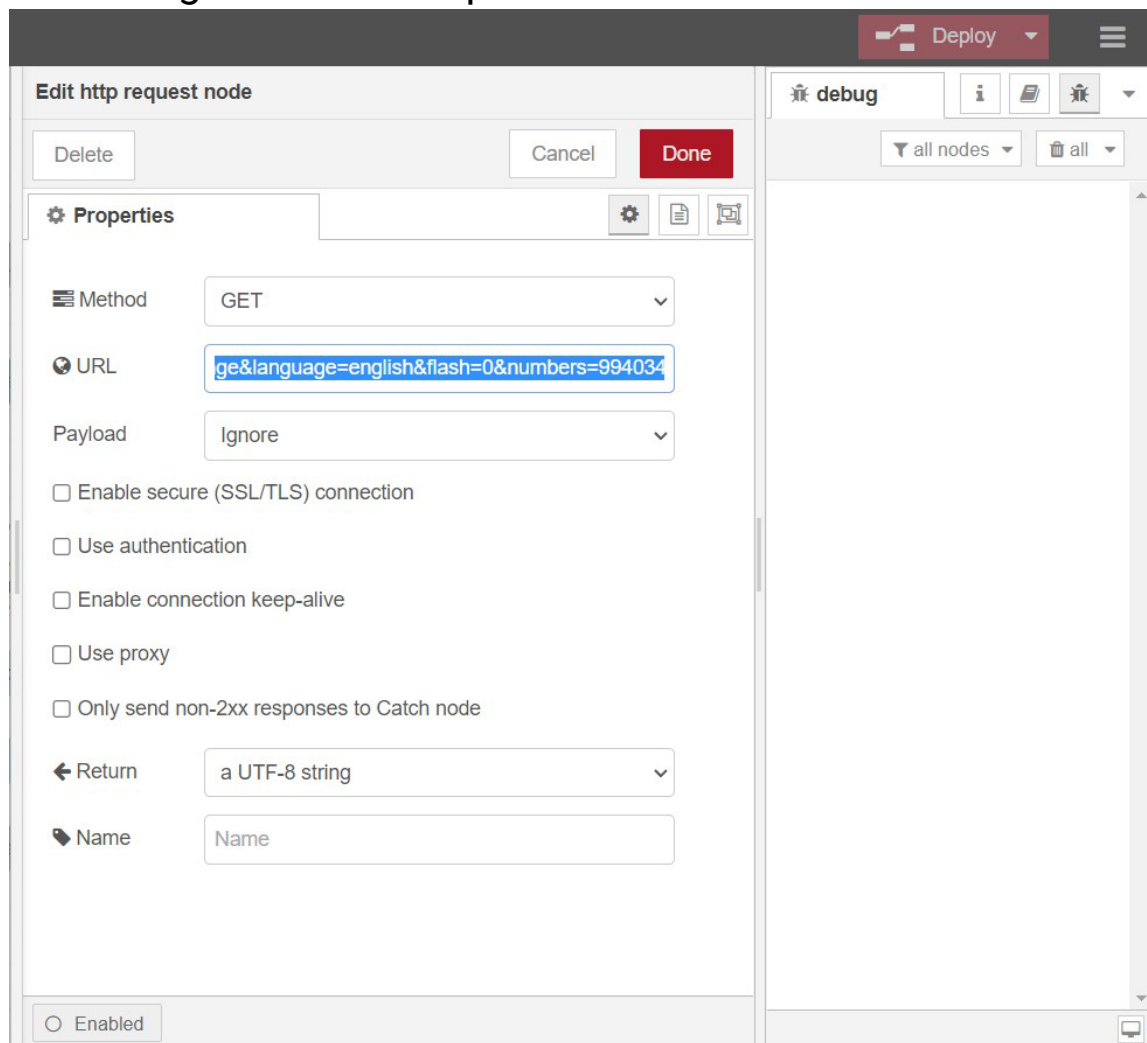
✚ Action

add "inarea" property

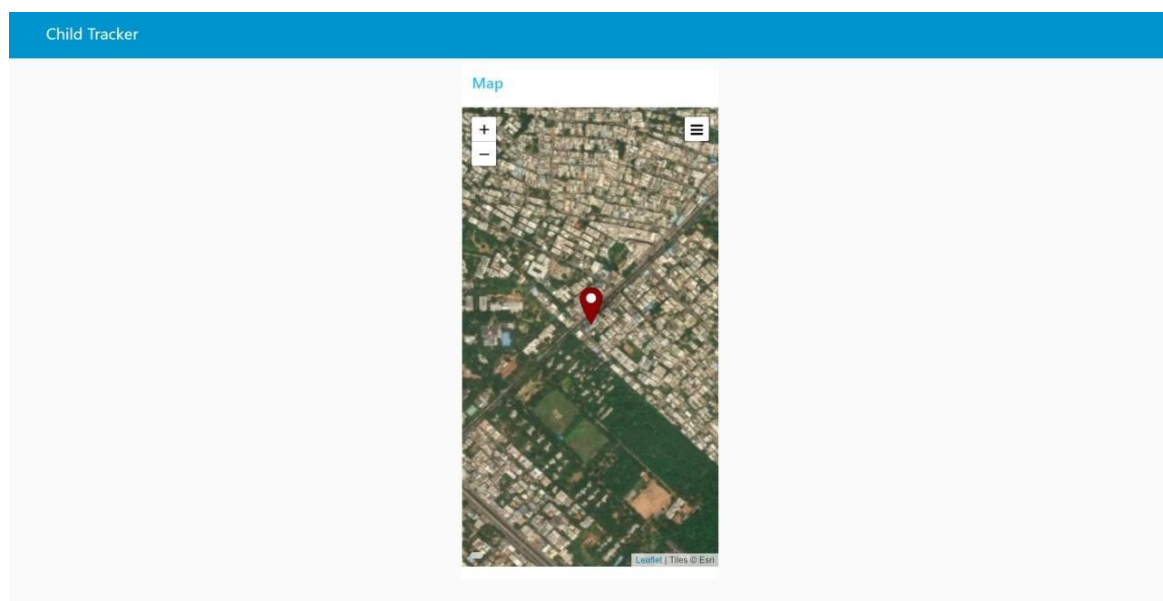
Enable output of zones to WorldMap node

☐ Enabled

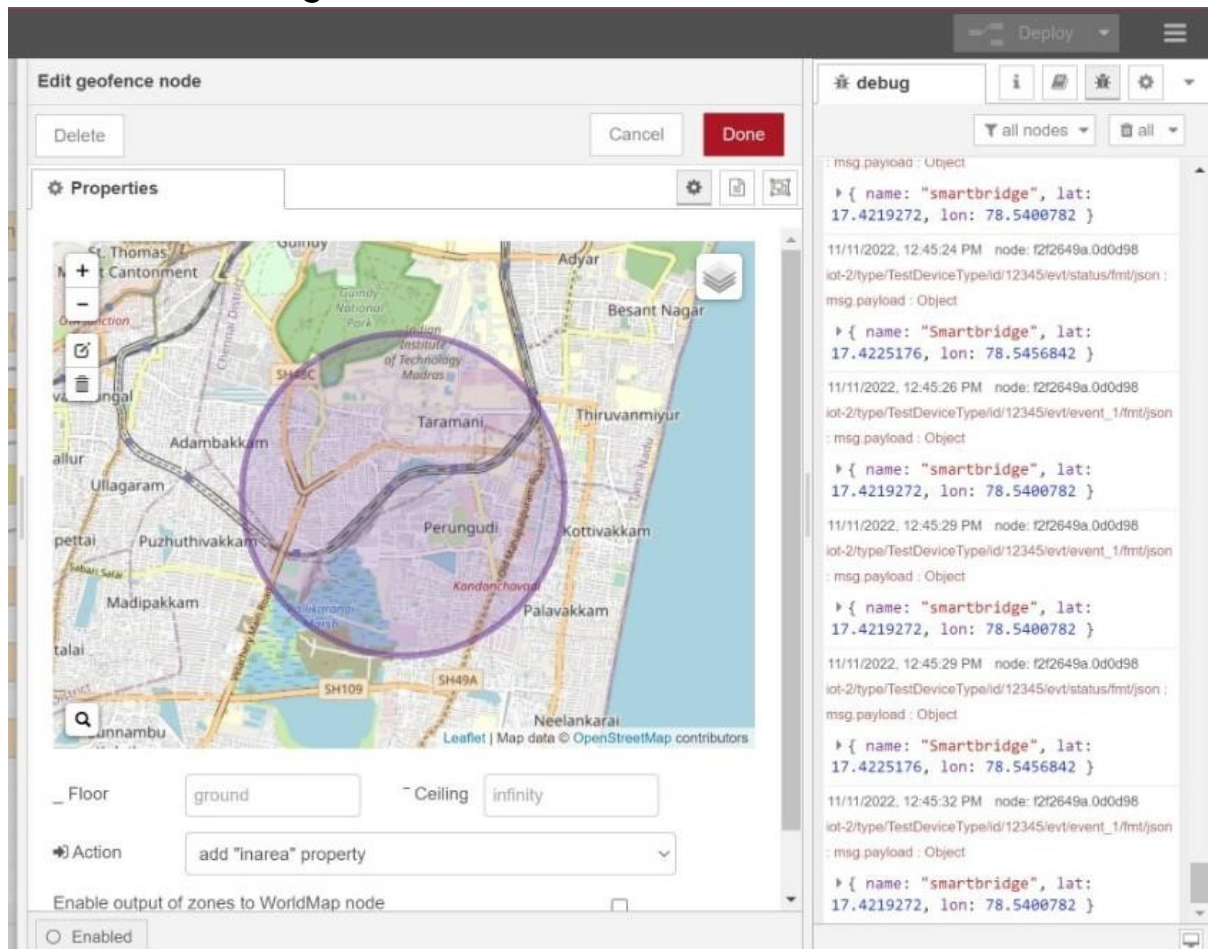
- Editing the HTTP Request URL



- Located the child



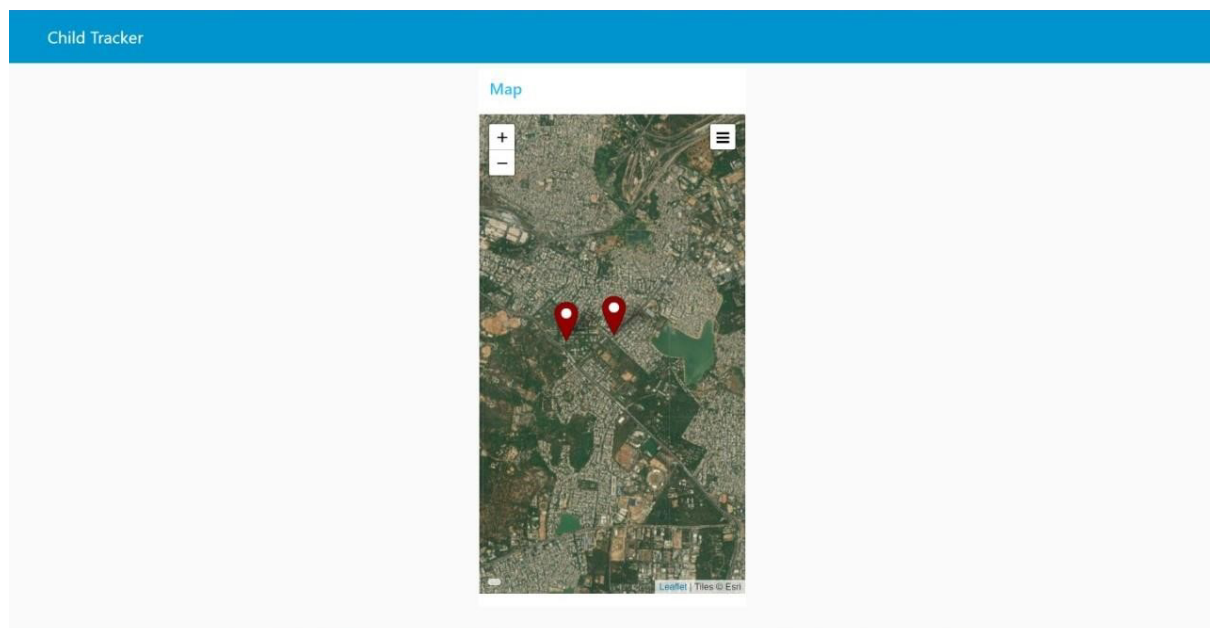
- Created the geofence node



- 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 wiop.sdk.device
import time
myConfig = {
    "identity": {
        "orgId": "401qxb",
        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhKv2N-sMMKvshxyl"
    }
}
client= wiop.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()
```

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



Result: Successfully developed the web application using Node-RED