

# Develop The Web Application Using Node-RED

IoT Based Safety Gadget for Child Safety Monitoring and Notification

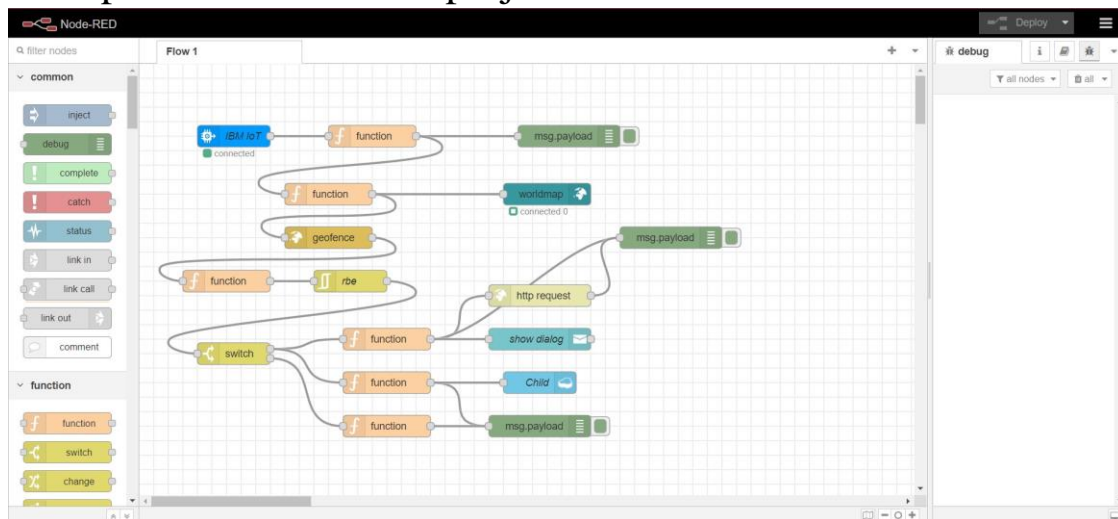
**Team ID:** PNT2022TMID53923

## 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": "4olqsb",
        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhXvzN-sRMKvshxyi"
    }
}
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 78.5460783
    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

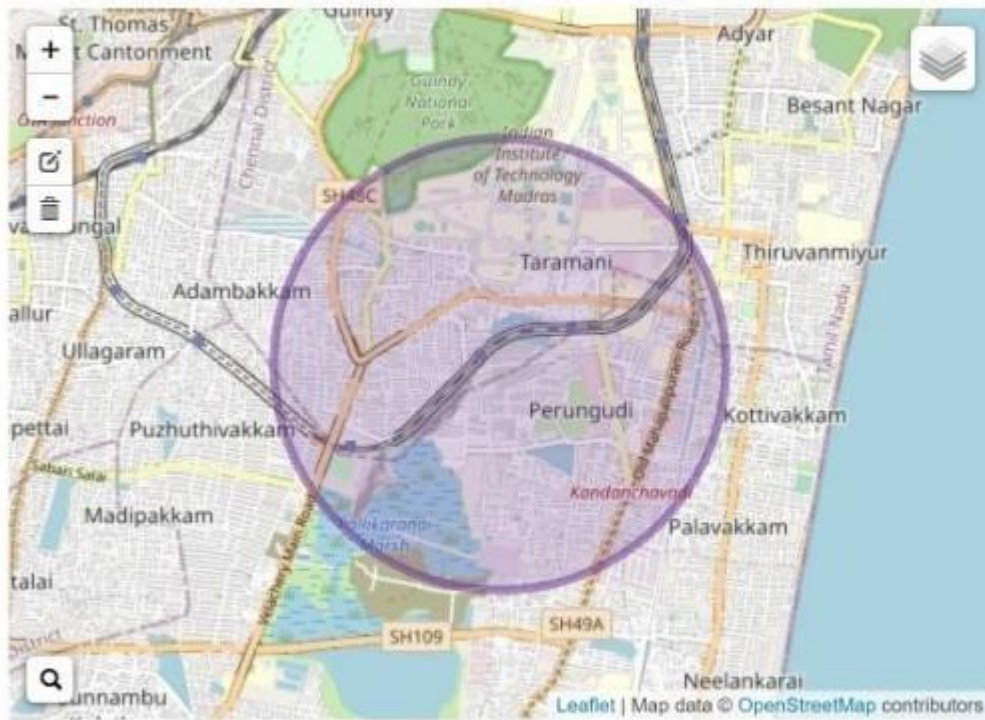
## Edit geofence node

Delete

Cancel

Done

### Properties



\_ Floor

ground

\_ Ceiling

infinity

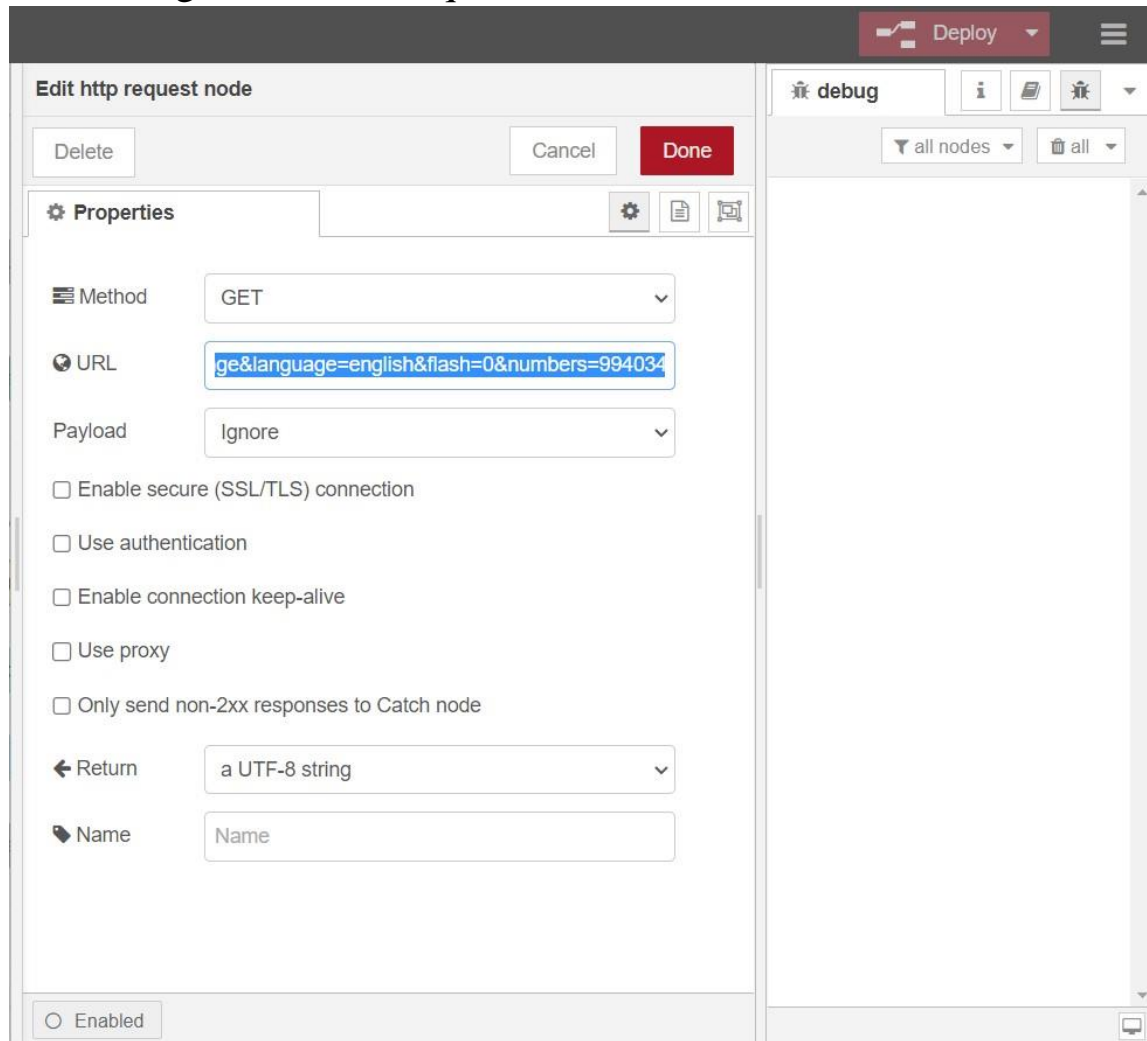
➦ Action

add "inarea" property

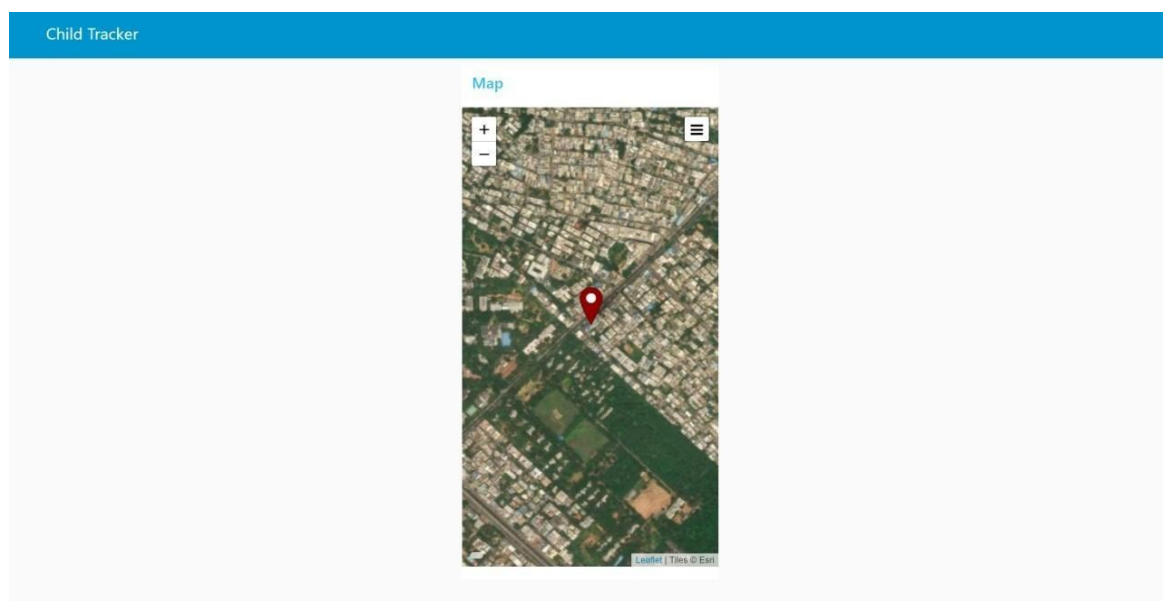
Enable output of zones to WorldMap node

☐ Enabled

- Editing the HTTP Request URL



- Located the child



- Created the geofence node

**Edit geofence node**

Delete Cancel Done

**Properties**

Map showing geofence area (purple outline) over a city map.

Properties:

- name: smartbridge
- lat: 17.4219272
- lon: 78.5400782

Action: add "inarea" property

Enable output of zones to WorldMap node: ☐

Enabled

**debug**

all nodes all

```

msg.payload: Object
{
  name: "smartbridge", lat: 17.4219272, lon: 78.5400782
}
11/11/2022, 12:45:24 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/12345/evt/status/fmt/json :
msg.payload: Object
{
  name: "Smartbridge", lat: 17.4225176, lon: 78.5456842
}
11/11/2022, 12:45:26 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/12345/evt/event_1/fmt/json :
msg.payload: Object
{
  name: "smartbridge", lat: 17.4219272, lon: 78.5400782
}
11/11/2022, 12:45:29 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/12345/evt/event_1/fmt/json :
msg.payload: Object
{
  name: "Smartbridge", lat: 17.4219272, lon: 78.5400782
}
11/11/2022, 12:45:29 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/12345/evt/status/fmt/json :
msg.payload: Object
{
  name: "Smartbridge", lat: 17.4225176, lon: 78.5456842
}
11/11/2022, 12:45:32 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/12345/evt/event_1/fmt/json :
msg.payload: Object
{
  name: "smartbridge", lat: 17.4219272, lon: 78.5400782
}

```

- Python script sending requests to IBM Cloud

```

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import time
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        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhXvzn-sW8Kvshxyl"
    }
}
client= wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

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

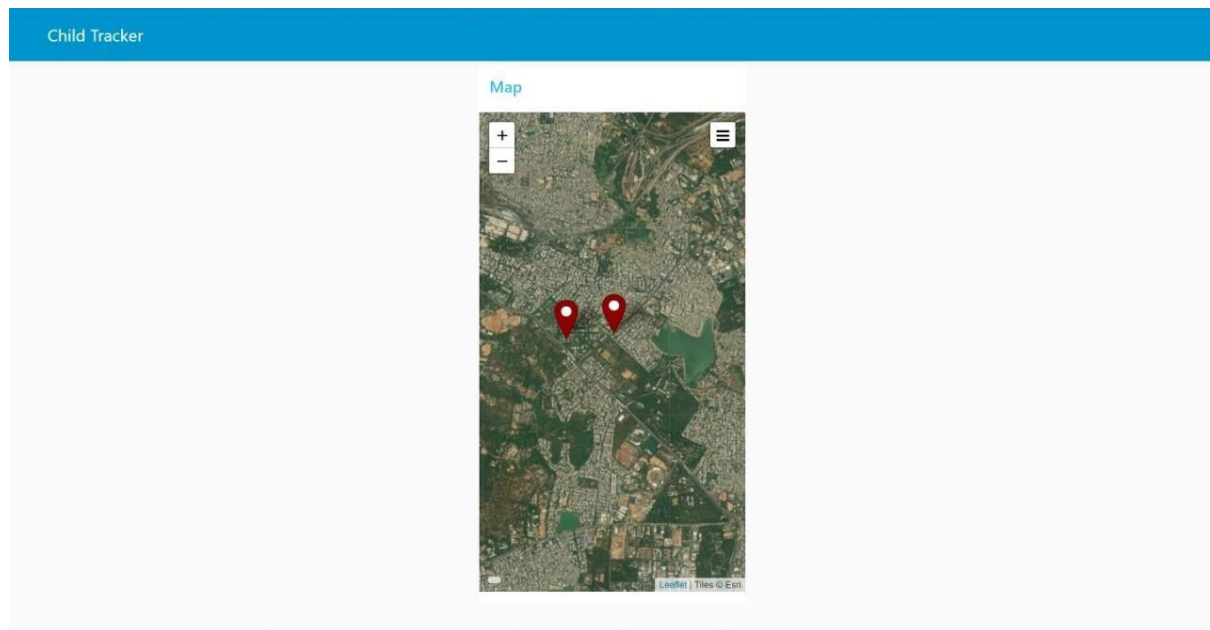
    #out area location
    latitude= 17.4219272
    longitude= 78.5400783
    myData={'name': name, 'lat':latitude, 'lon': longitude}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Data published to IBM IoT platform: ",myData)
    time.sleep(5)

client.disconnect()

```

Ln: 28 Col: 18

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



## **Result:**

Successfully developed the web application using Node-RED