

Develop The Web Application Using Node-RED

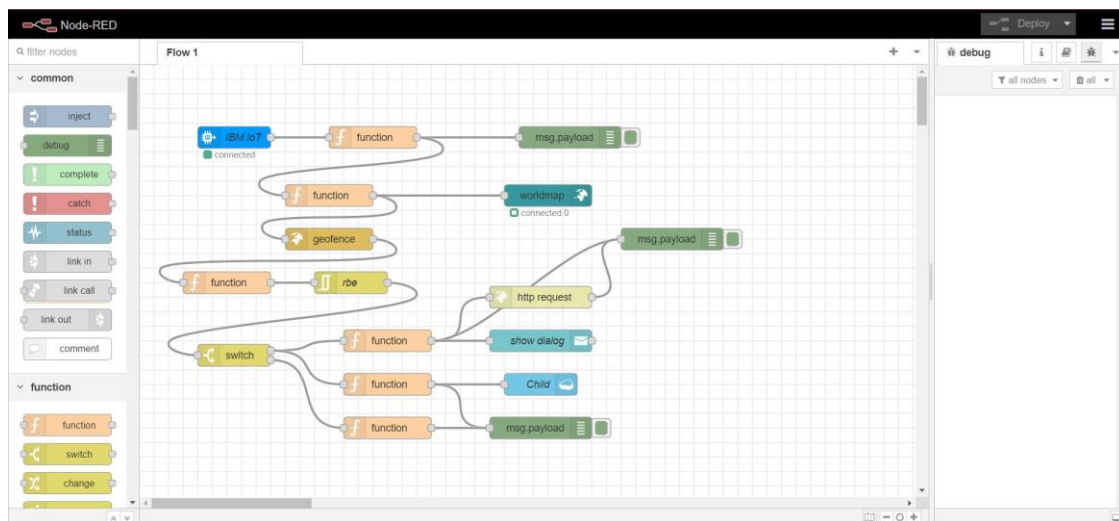
IoT Based Safety Gadget for Child Safety Monitoring and Notification

TEAM ID	PNT2022TMID00475
PROJECT NAME	IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION
TEAM MEMBERS	KUMARA BALAJI.S (TEAM LEADER) MITHUN.B PRAVEEN.V NITHIN ARAVIND.V

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": "4o1qsb",
        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhXvzN-c8MKvshxyi"
    }
}

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

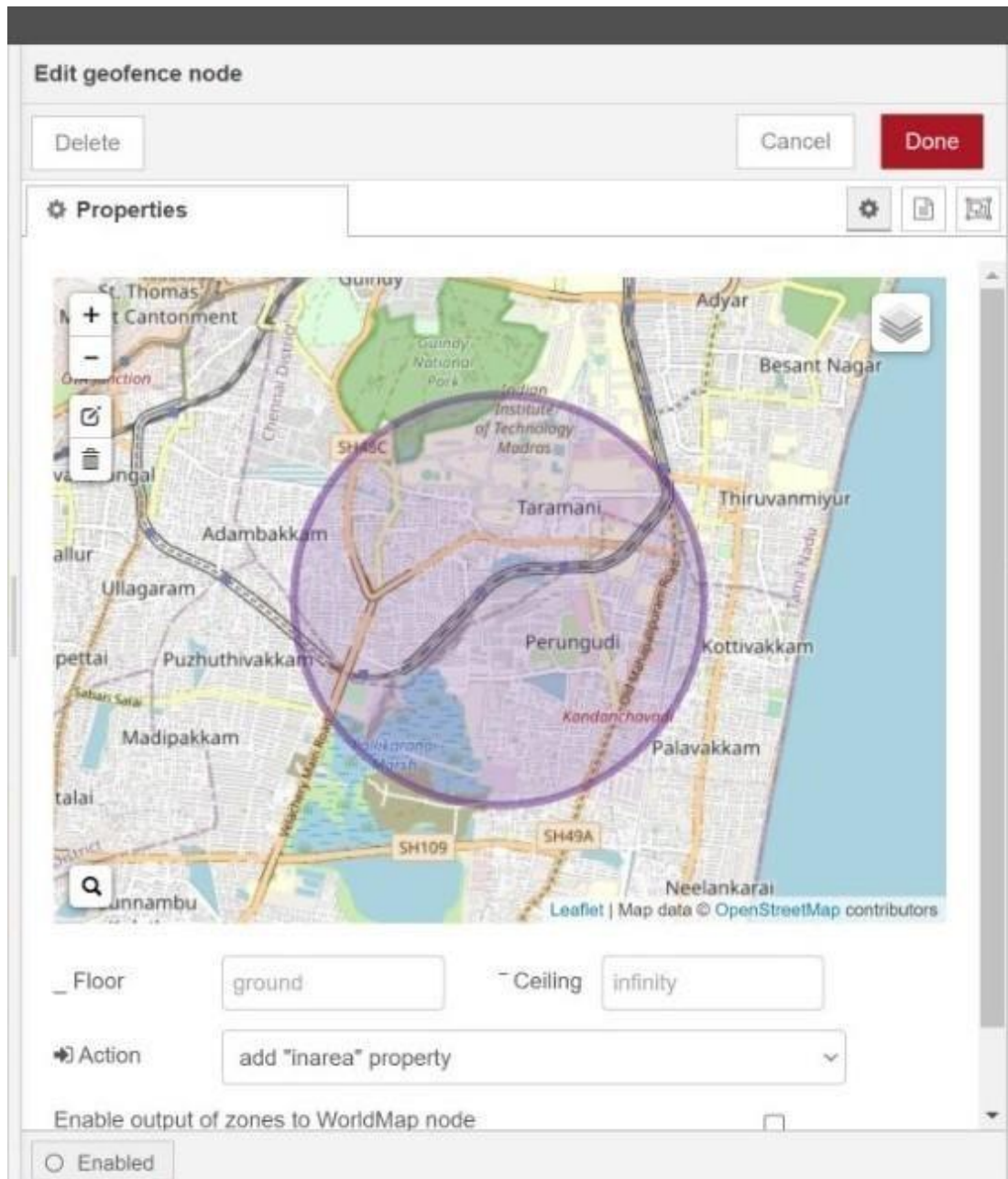
while True:
    name = "Smartbridge"
    #in area location
    latitude = 17.4225176
    longitude = 78.5456842

    #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)

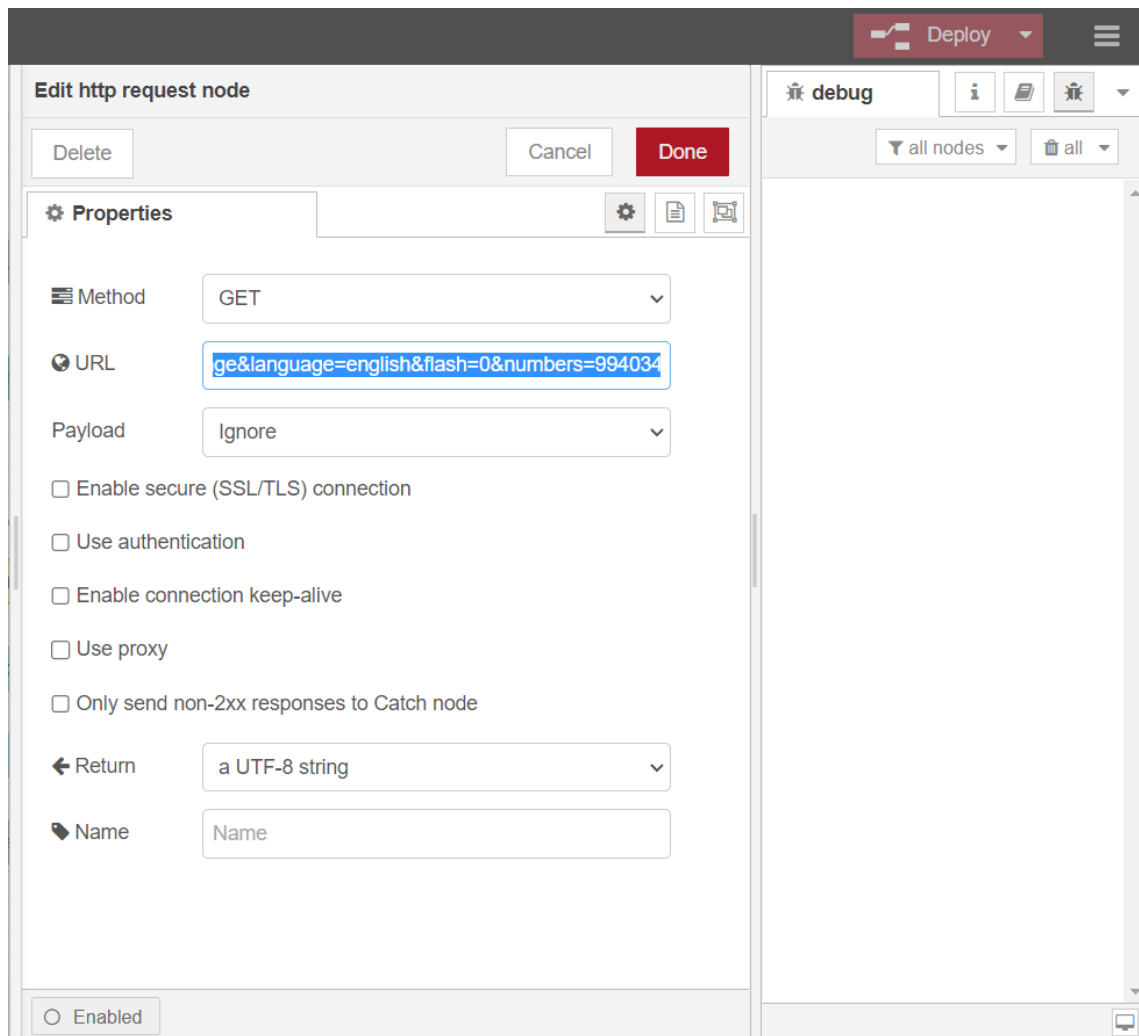
client.disconnect()
```

Line 1 Col 0

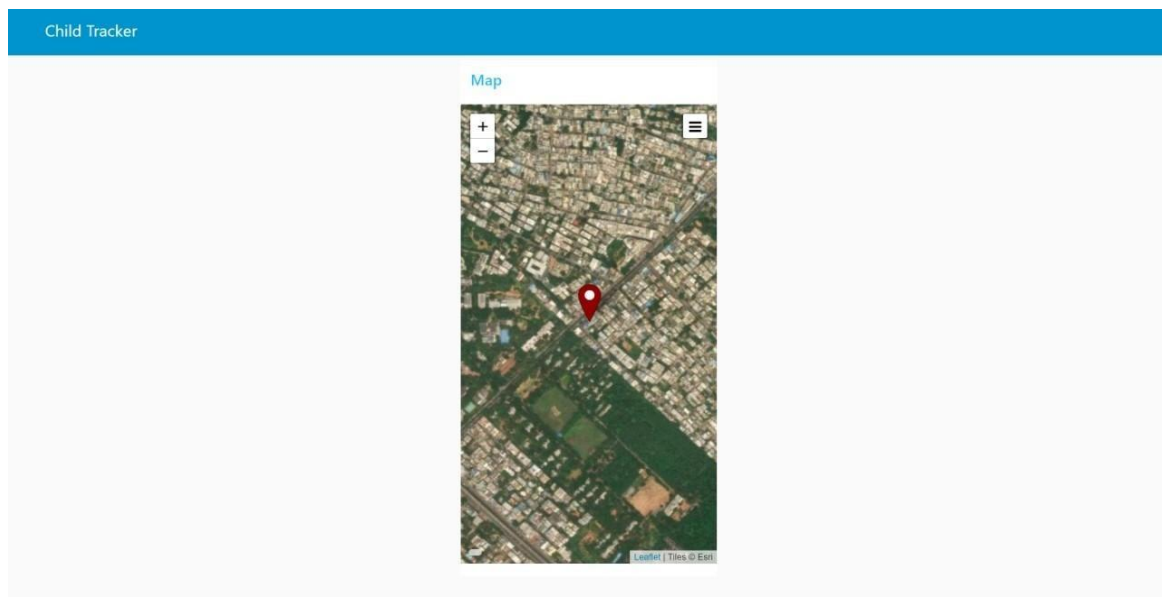
- Created the GeoFence



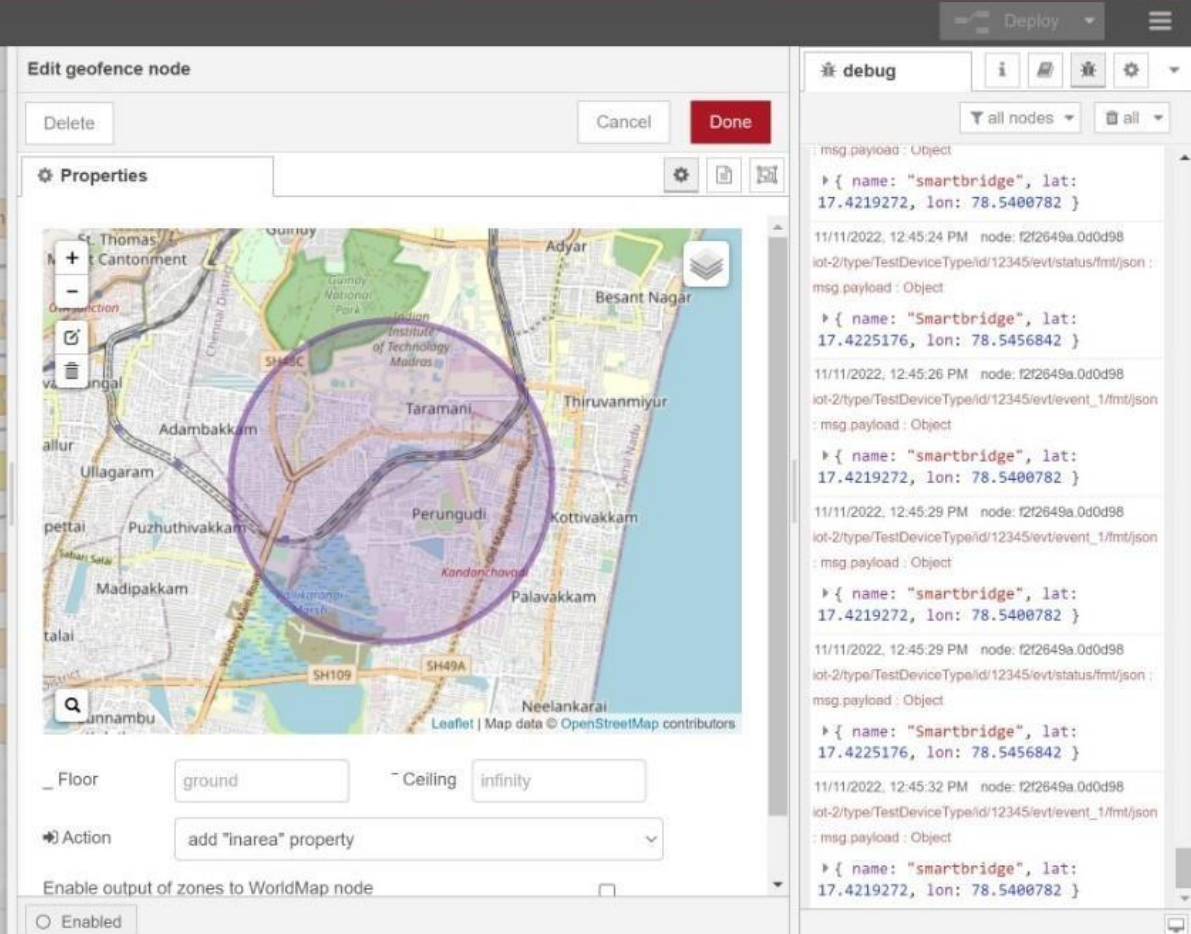
- Editing the HTTP Request URL



- Located the child



- Created the geofence node



The screenshot shows the 'Edit geofence node' interface. The map displays a purple geofence polygon over a city area. The 'Properties' section includes a 'Delete' button, 'Cancel', and 'Done' buttons. Below the map, there are settings for 'Floor' (ground) and 'Ceiling' (infinity), and an 'Action' dropdown set to 'add "inarea" property'. On the right, a 'debug' panel 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

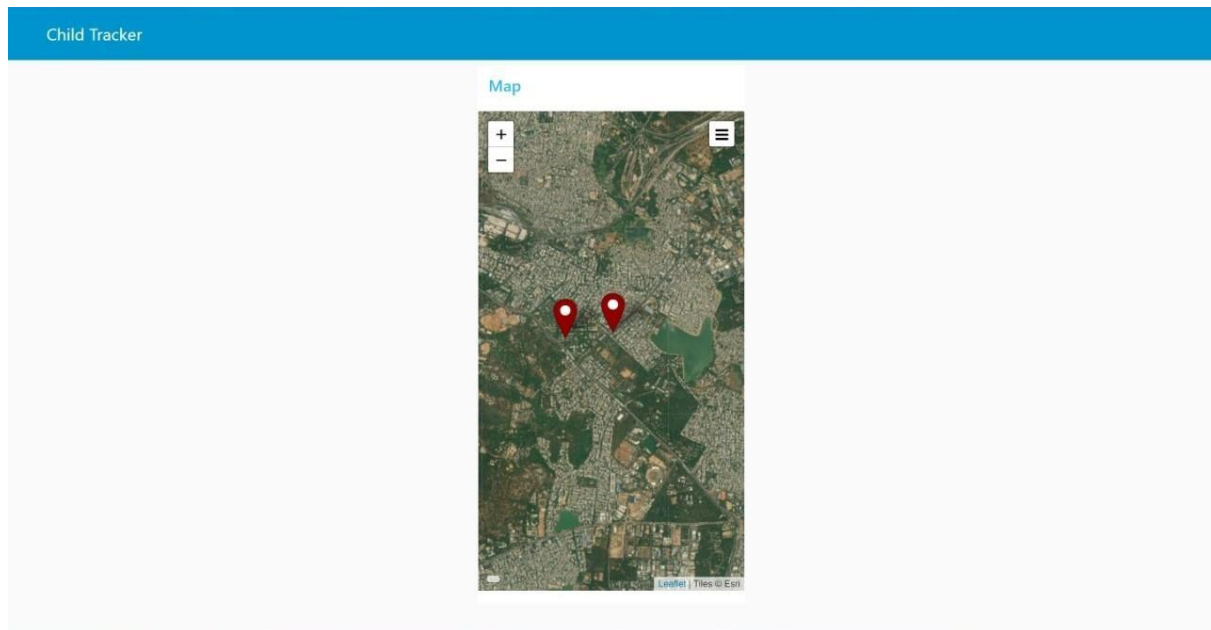
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import time
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        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "pnhKvzN-sW8Kv4hxyI"
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}
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    name = "Smartbridge"
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    #latitude = 17.4225176
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    #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