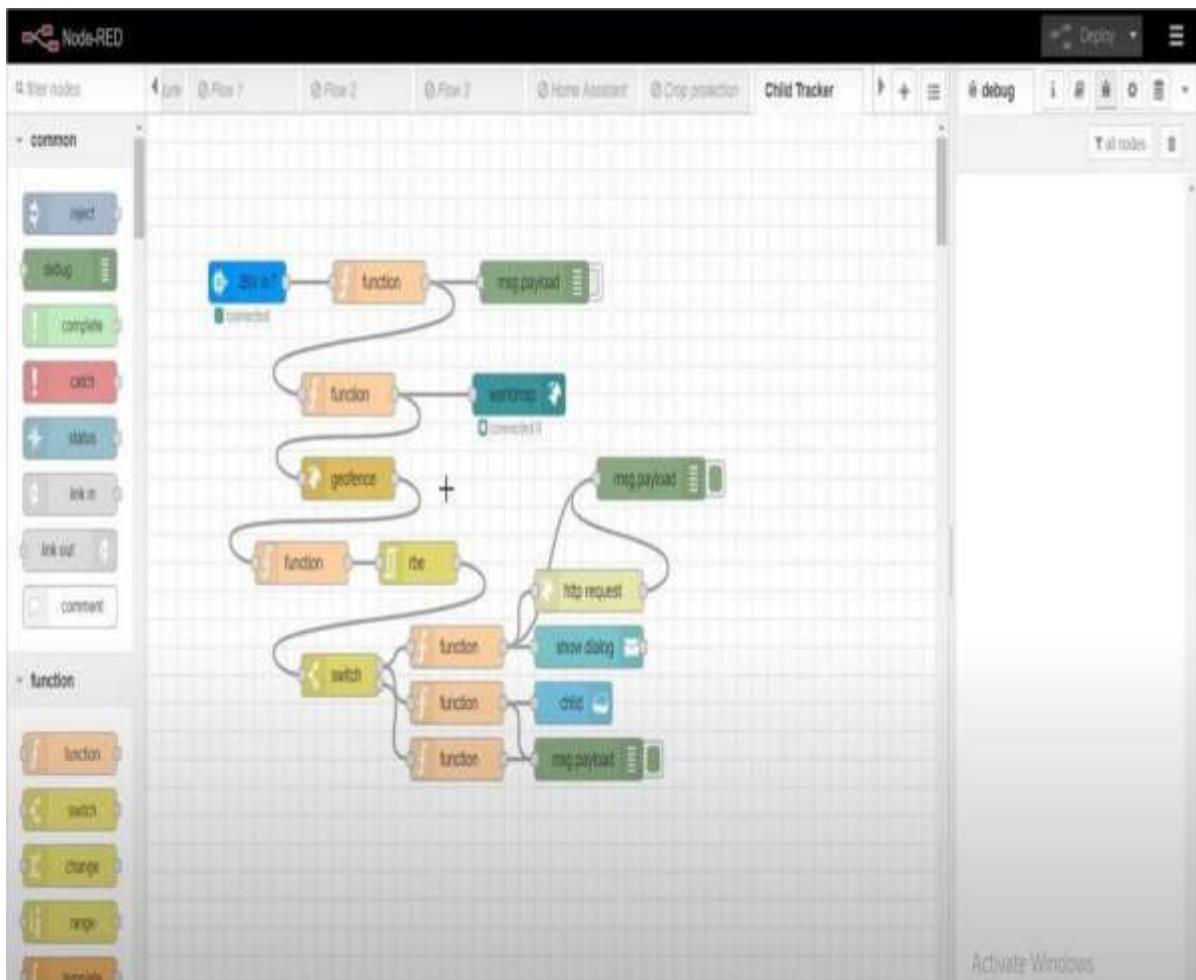


DATE	7-11-2022
TEAM ID	PNT2022TMID25436
PROJECT NAME	Industry-specific intelligent fire management system

Develop A Web Application Using Node-RED

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()

while True:
    name= "Smartbridge"
    #in area location

    latitude= 17.4225176
    longitude= 78.5458842

    #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

HOSPITAL
Bapuji
Maternity
and Nursing
Home

Kabab house

bapuji
nagar park

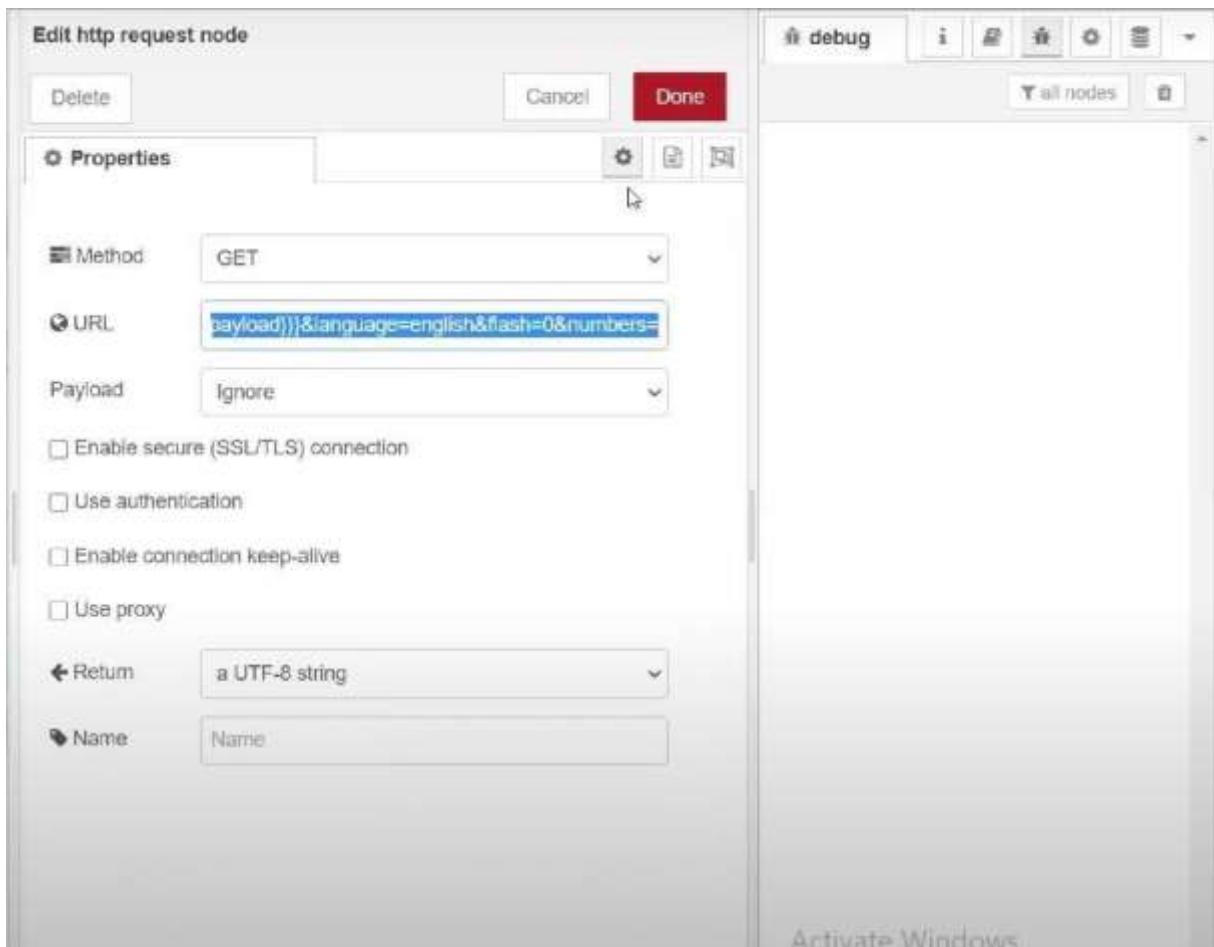
Leaflet | Map data ©OpenStreetMap contributors

Floor ground Ceiling infinity

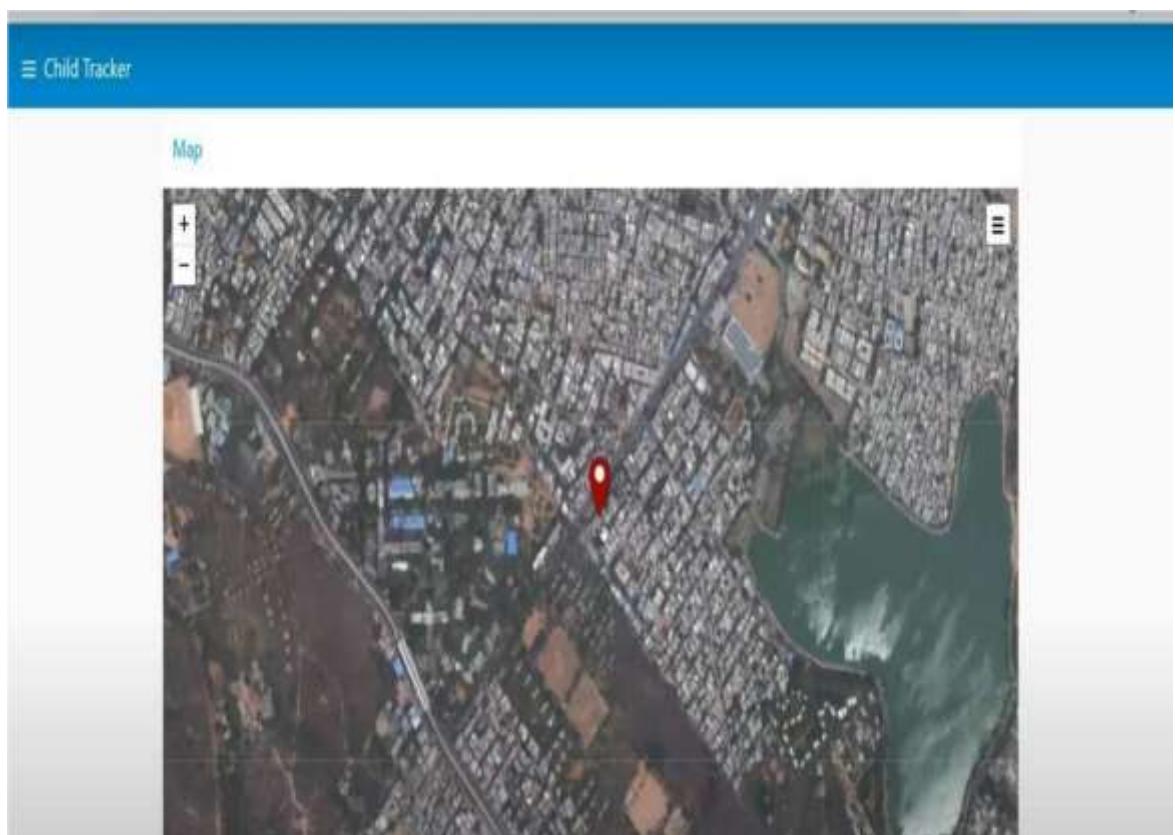
Action add "inarea" property

-

Editing the HTTP Request URL



- Located the child



Created the geofence node

The screenshot displays a map interface for creating a geofence node. On the map, a purple circle represents the geofence boundary. The map also shows several buildings and landmarks, including 'Vedha Systems Shella Apartments', 'Natchatram road', 'Kutub', 'SRI SRI PODIJA HOSPITAL', and 'Bapuji Maternity and Nursing Home'. A legend at the bottom indicates floor levels: 'Floor' (blue), 'ground' (green), 'Ceiling' (red), and 'infinity' (grey). To the right of the map is a 'debug' panel with a timestamp '4/2/2021, 12:25:47 PM', a node ID 'ea2edd12b137', and a log entry:

```
4/2/2021, 12:25:47 PM node: ea2edd12b137
iot-2@openNodeMCU:~$12345$ev1status.json
msg payload: Object
{
  "message": "Entry",
  "Time": "4/2/2021, 12:25:47 PM",
  "name": "Gnaneshwar",
  "lat": 17.4225176,
  "lon": 78.5458842
}
```

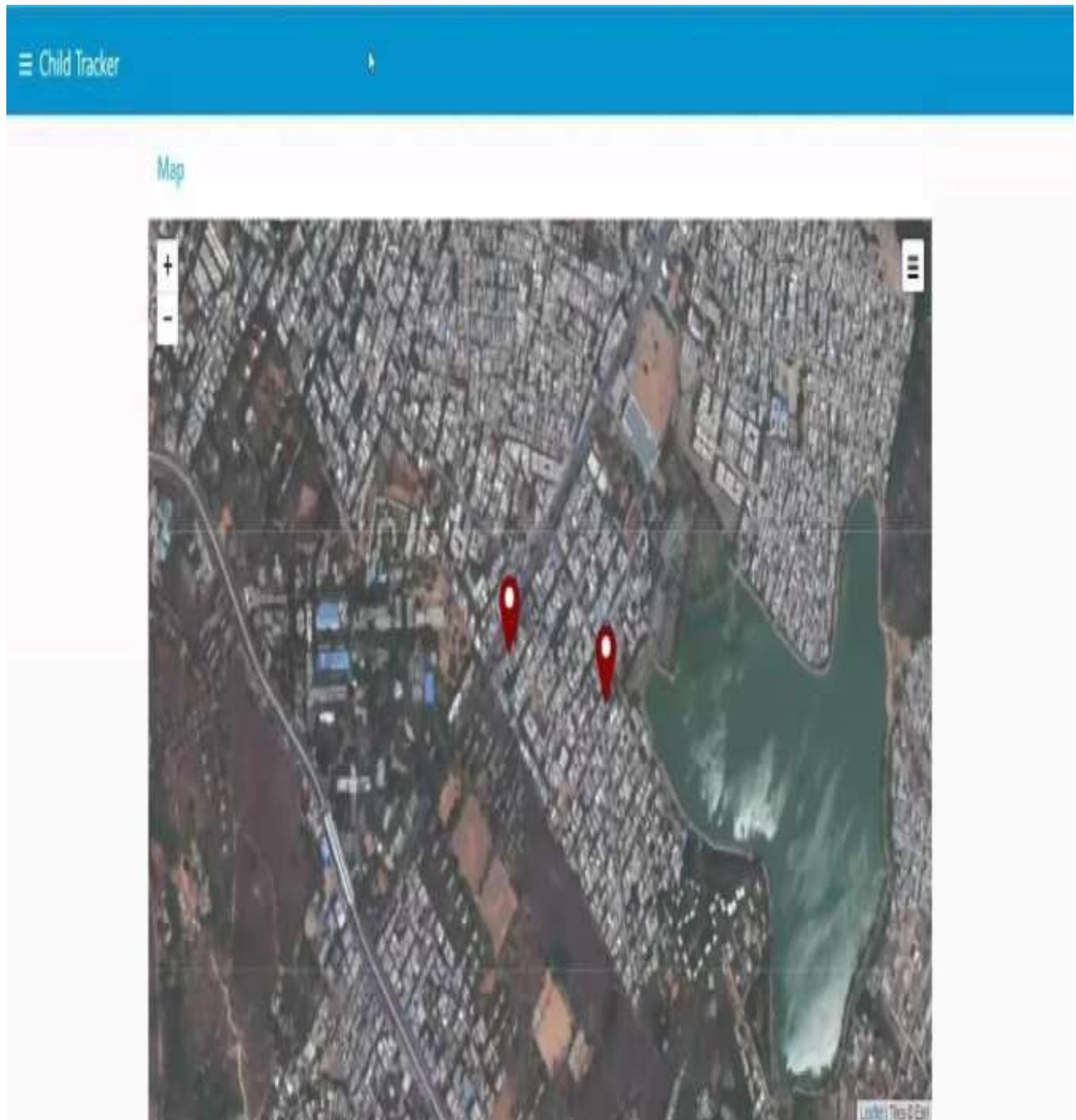
- Python script sending requests to IBM Cloud

The screenshot shows a Python development environment with two windows:

- Editor - C:\Users\HP\Desktop\child.py**: This window displays the source code for a Python script named `child.py`. The code uses the `wiotp.sdk.device` library to connect to an IBM IoT platform. It defines a configuration object `myConfig` with `identity` and `auth` fields, and a `DeviceClient` instance `client`. A loop runs indefinitely, publishing event data to the platform every 5 seconds. The event data includes the device name (`"Smartbridge"`), location (`latitude= 17.4219272`, `longitude= 78.5488783`), and a status message (`"Data published to IBM IoT platform: " + myData`). The code ends with a `client.disconnect()` call.
- Python console**: This window shows the output of the script's execution. It consists of a single line of text repeated 36 times: `Data published to IBM IoT platform:`

-

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



Result: Successfully developed a web application using Node-RED