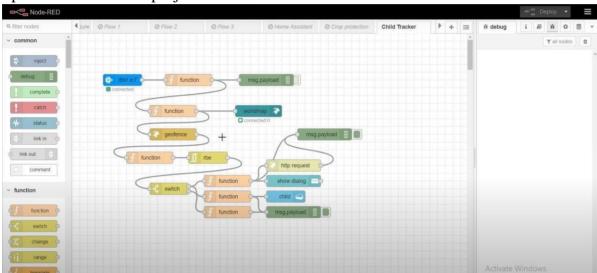
Develop A Web Application Using Node-RED

Team ID	PNT2022TMID11653
Project Name	IoT Based Safety Gadget For Child
	Safety Monitoring & Notification
Maximum Marks	2 Marks

Steps followed:

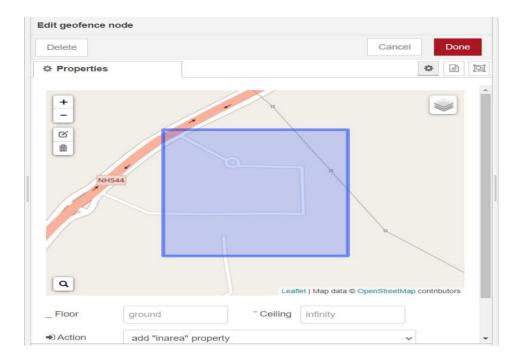
• Opened a Node-RED project



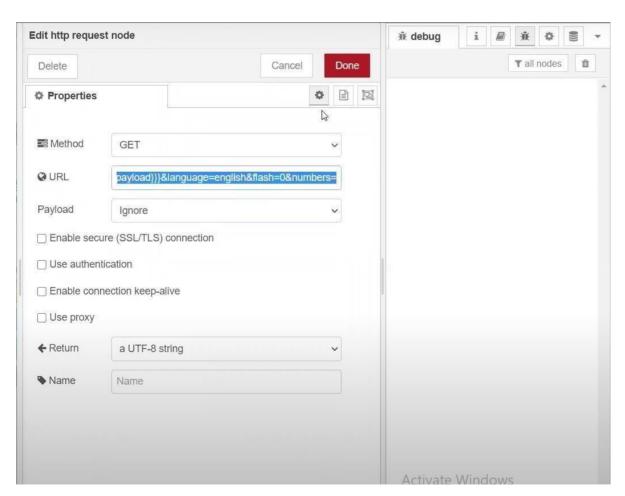
• Added code to get child location in python

```
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 platfrom: ",myData)
          time.sleep(5)
client.disconnect()
```

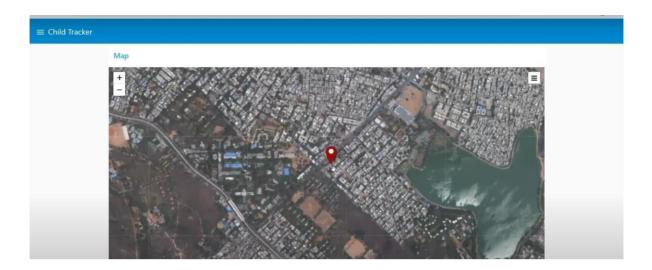
• Created the GeoFence



• Editing the HTTP Request URL



• Located the child



• Python script sending requests to IBM Cloud

```
child.py 🛛
                                                                                                                         Console 2/A 🖸
                                                                                                                             Data published to IBM IoT platfrom:
▲ 1 import json
                                                                                                                             Data published to IBM IoT platfrom:
   2 import wiotp.sdk.device
                                                                                                                             Data published to IBM IoT platfrom:
   3 import time
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
   5 myConfig = {
           "identity": {
    "orgId": "hj5fmy",
    "typeId": "NodeMCU",
                                                                                                                             Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
                "deviceId": "12345"
                                                                                                                             Data published to IBM IoT platfrom:
         },
"auth": {
    "token": "12345678"
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
  12
                                                                                                                             Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
  14}
                                                                                                                             Data published to IBM IoT platfrom:
  15 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
                                                                                                                             Data published to IBM IoT platfrom:
  16 client.connect()
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
  18 while True:
19 name= "Smartbridge"
                                                                                                                             Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
  20
           #in area location
                                                                                                                             Data published to IBM IoT platfrom:
  21
                                                                                                                             Data published to IBM IoT platfrom:
          #Latitude= 17.4225176
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
  23
          #longitude= 78.5458842
                                                                                                                             Data published to IBM IoT platfrom:
           #out area location
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
  26
27
           latitude= 17.4219272
          Inditude= 78.5488783
myData={'name': name, 'lat':latitude, 'lon':longitude}
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPub
print("Data published to IBM IoT platfrom: ",myData)
                                                                                                                              Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
  29
30
                                                                                                                              Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
           time.sleep(5)
                                                                                                                             Data published to IBM IoT platfrom:
  34 client.disconnect()
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
Data published to IBM IoT platfrom:
                                                                                                                             Data published to IBM IoT platfrom:
```

• After running the script, the web UI shows "Person is not in the particular area"



Result:

Web application is developed using Node-RED Successfully.