Project Development Phase
Project Development Delivery of Sprint 4

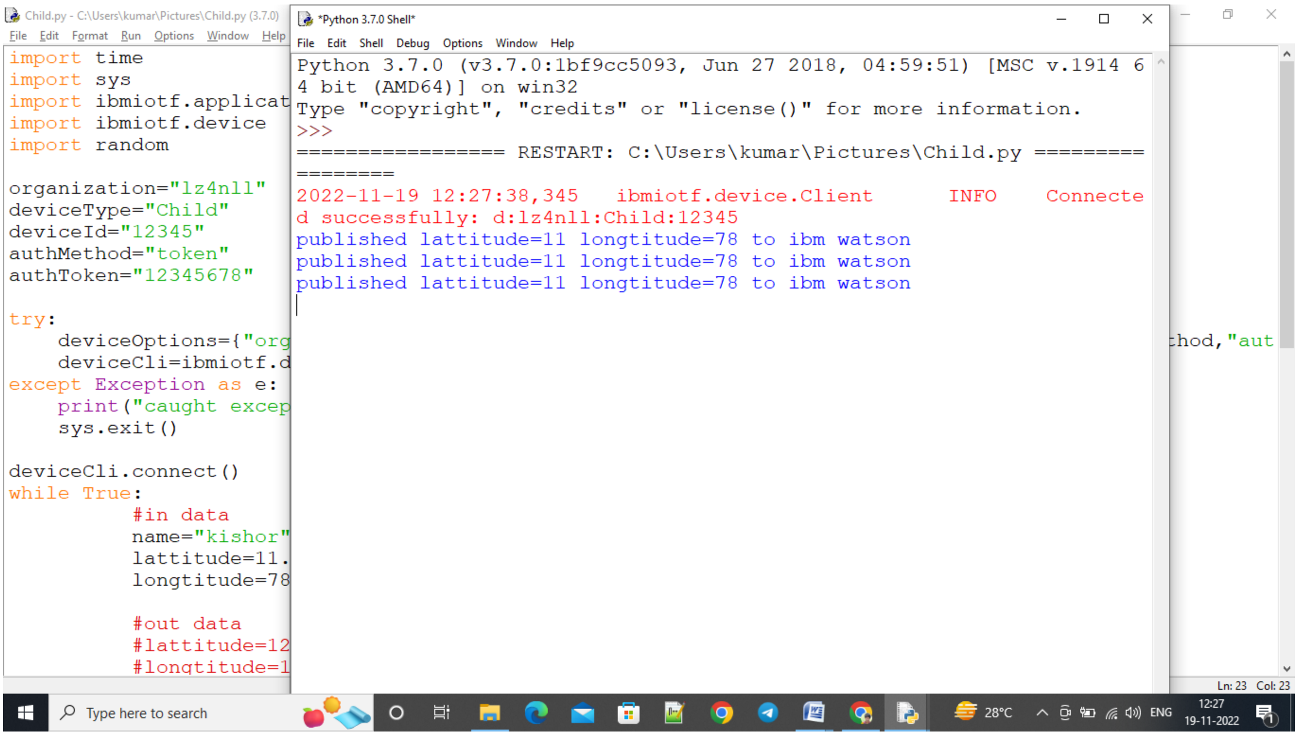
Date	13 November 2022
Team ID	PNT2022TMID13499
Project Name	Project - IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

IoT Based Safety Gadget for Child Safety Monitoring and Notification :

Python code for transferring latitude and longitude:

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random

organization="lz4nll"

deviceType="Child"

deviceId="12345"

authMethod="token"

authToken="12345678"

try:

   deviceOptions={"org": organization,"type": deviceType,"id": deviceId,"auth-method": authMethod,"auth-token": authToken}

   deviceCli=ibmiotf.device.Client(deviceOptions)

except Exception as e:

   print("caught exception connecting device:%s" % str(e))

   sys.exit()

deviceCli.connect()

while True:

        #in data

        name="kishor"

        lattitude=11.663579;

        longtitude=78.146254;
        #out data
        #lattitude=12.7345;
        #longtitude=13.2020;
        data={'lat':lattitude,'lon':longtitude,'name':name}
        def myOnPublishCallback():
print("published lattitude=%d" %lattitude,"longtitude=%d" %longtitude,"to ibm watson")
success=deviceCli.publishEvent("IotSensor","json",data,qos=0,on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
        time.sleep(3)
deviceCli.disconnect()
```

OUTPUT:

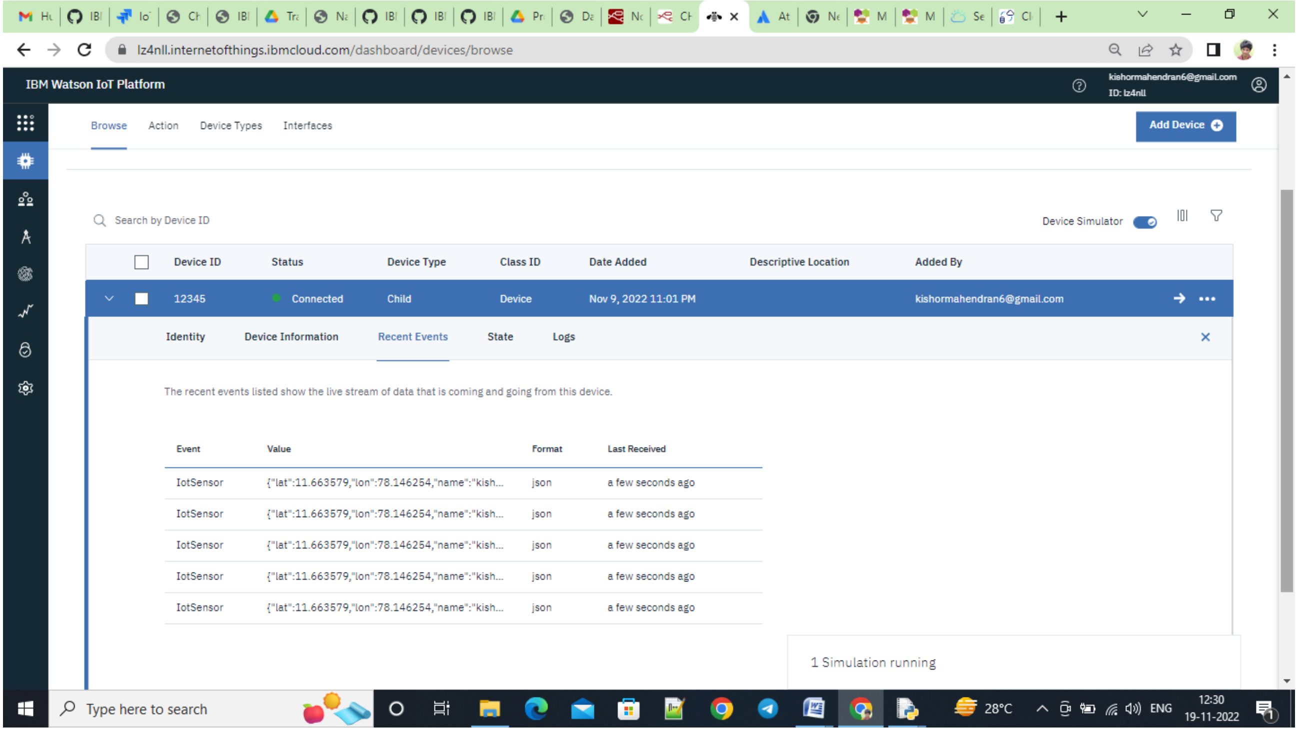


Child.py - C:\Users\kumar\Pictures\Child.py (3.7.0)
File Edit Format Run Options Window Help
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Ln: 23 Col: 23
Type here to search
28°C
ENG
12:27
19-11-2022

```
import time
import sys
import ibmiotf.applicat
import ibmiotf.device
import random

organization="lz4nll"
deviceType="Child"
deviceId="12345"
authMethod="token"
authToken="12345678"

try:
    deviceOptions={"org                                                         thod,"aut
    deviceCli=ibmiotf.d
except Exception as e:
    print("caught excep
    sys.exit()

deviceCli.connect()
while True:
          #in data
          name="kishor"
          lattitude=11.
          longtitude=78

          #out data
          #lattitude=12
          #longtitude=1
```

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 6
4 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
================= RESTART: C:\Users\kumar\Pictures\Child.py =========
========
2022-11-19 12:27:38,345   ibmiotf.device.Client      INFO    Connecte
d successfully: d:lz4nll:Child:12345
published lattitude=11 longtitude=78 to ibm watson
published lattitude=11 longtitude=78 to ibm watson
published lattitude=11 longtitude=78 to ibm watson
```

PUBLISHED DATA IN IBM WATSON IOT PLATFORM:



lz4nll.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

kishormahendran6@gmail.com
ID: lz4nll

Browse | Action | Device Types | Interfaces

Add Device

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By
12345	Connected	Child	Device	Nov 9, 2022 11:01 PM		kishormahendran6@gmail.com

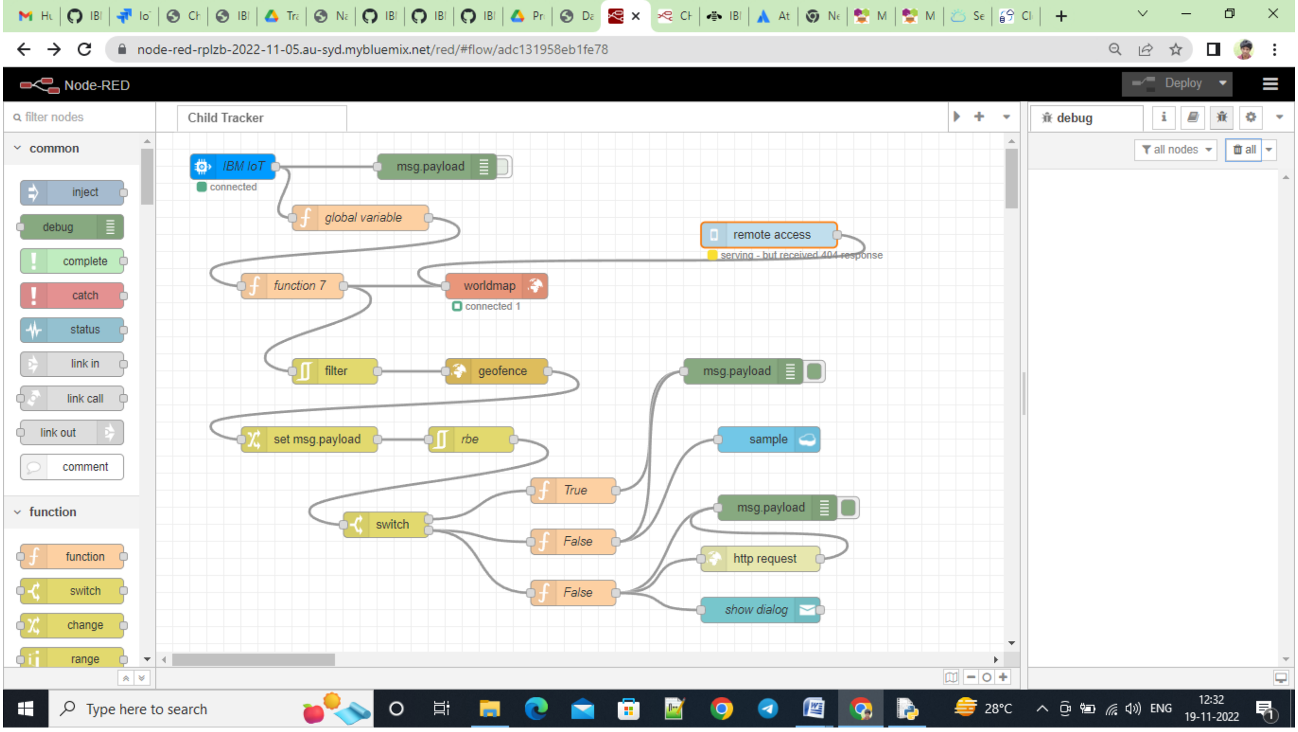
Identity | Device Information | Recent Events | State | Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
IotSensor	{"lat":11.663579,"lon":78.146254,"name":"kish...	json	a few seconds ago
IotSensor	{"lat":11.663579,"lon":78.146254,"name":"kish...	json	a few seconds ago
IotSensor	{"lat":11.663579,"lon":78.146254,"name":"kish...	json	a few seconds ago
IotSensor	{"lat":11.663579,"lon":78.146254,"name":"kish...	json	a few seconds ago
IotSensor	{"lat":11.663579,"lon":78.146254,"name":"kish...	json	a few seconds ago

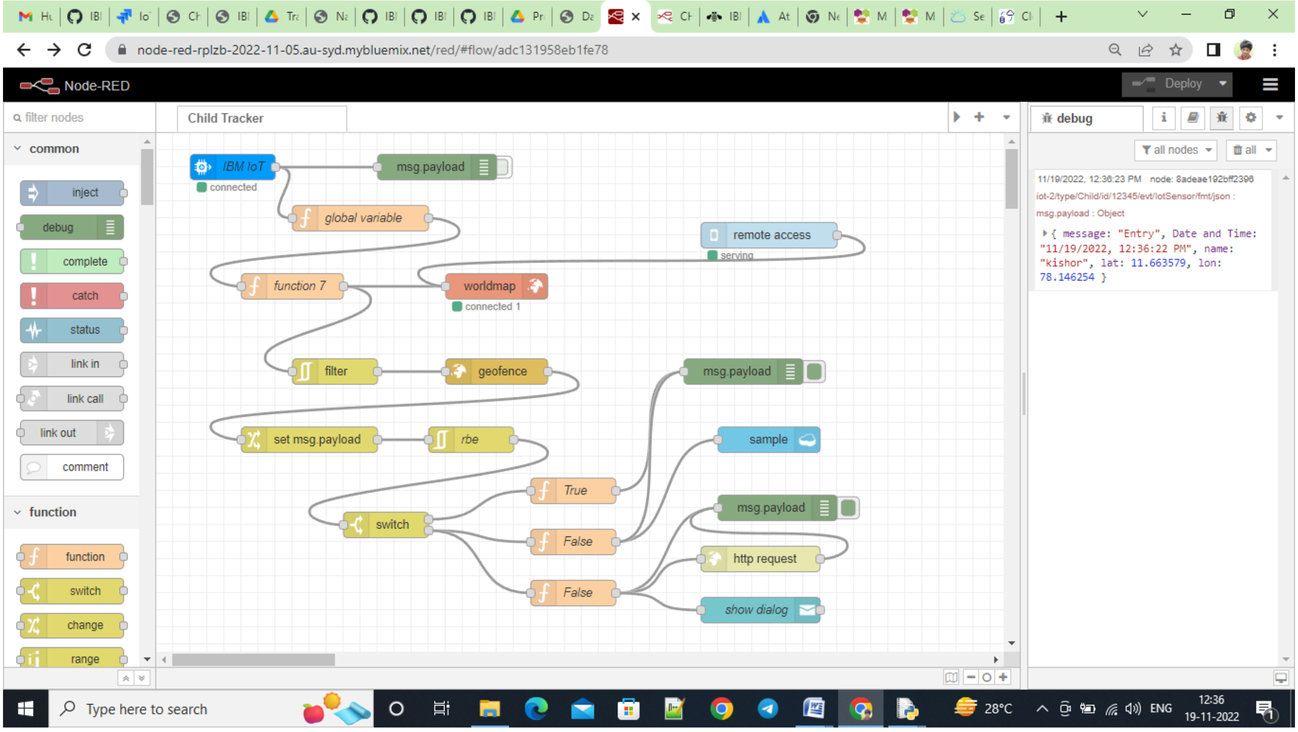
1 Simulation running

WEB APPLICATION USING NODE-RED:



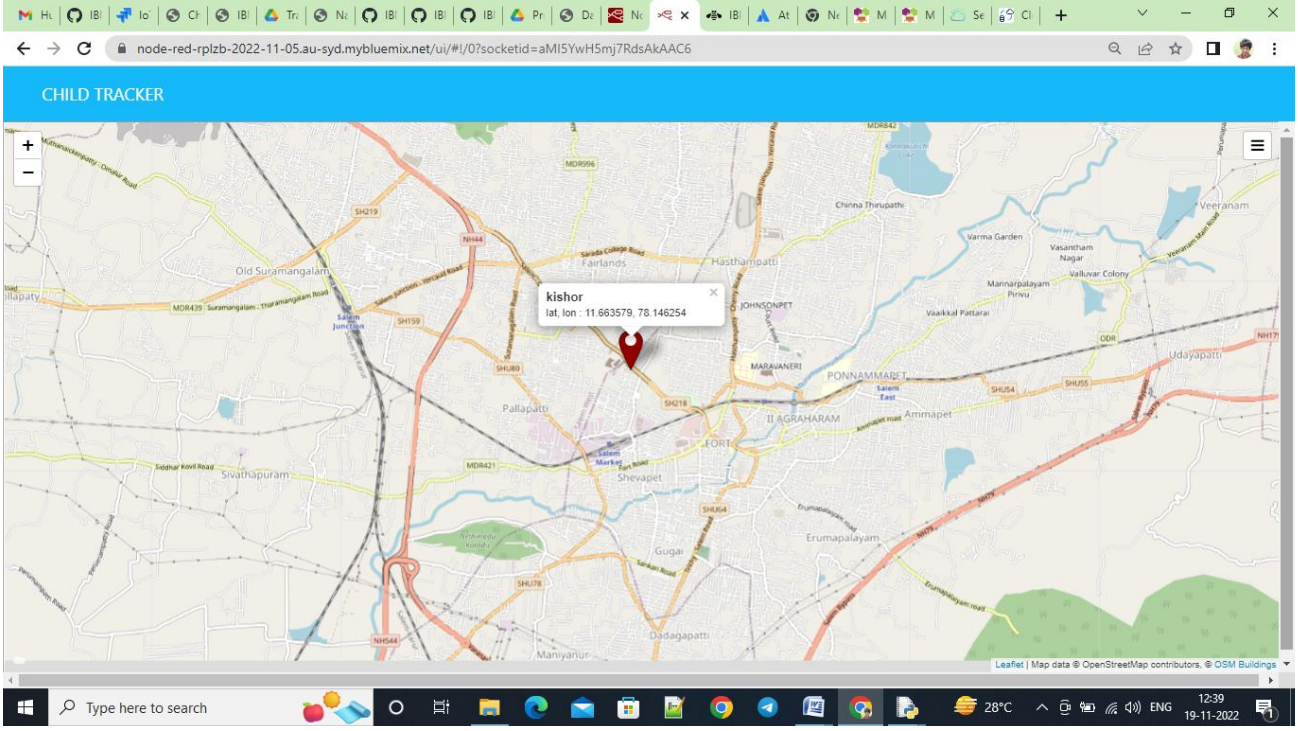
node-red-rplzb-2022-11-05.au-syd.mybluemix.net/red/#flow/adc131958eb1fe78

WHEN WE GIVE IN AREA LOCATION:



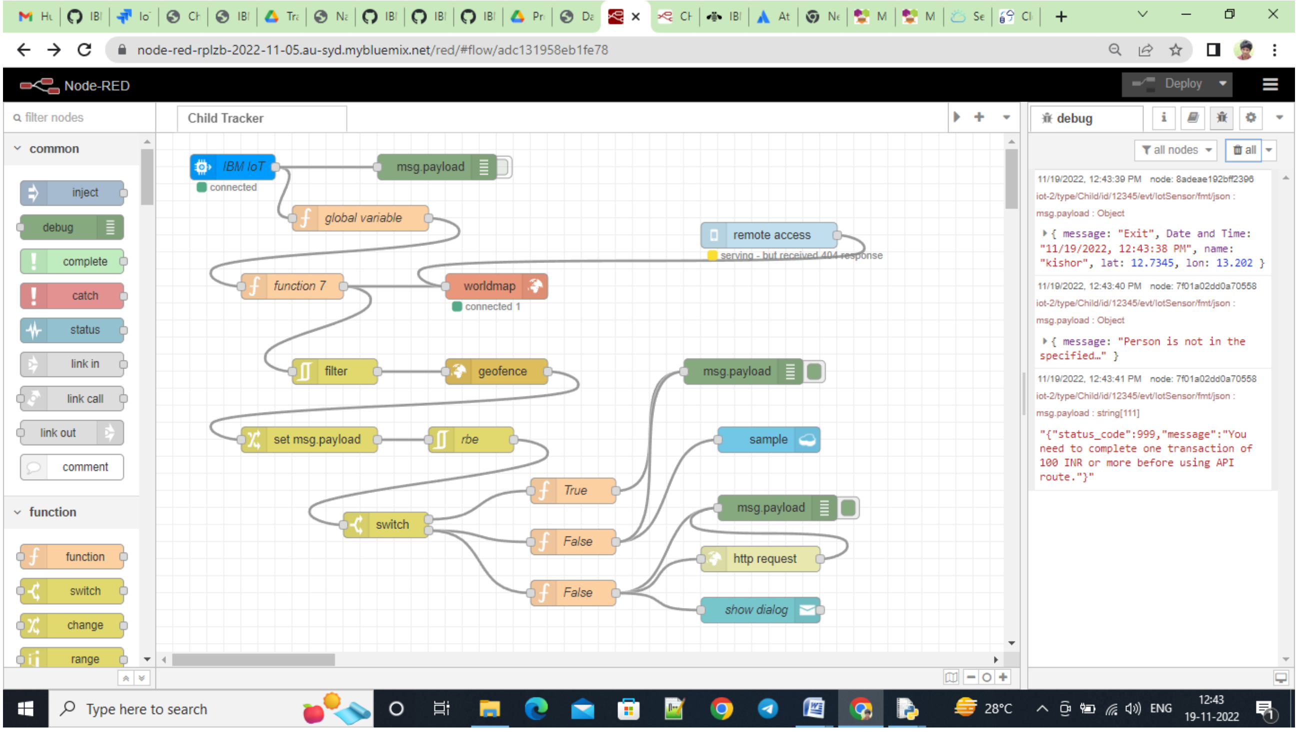
```
11/19/2022, 12:36:23 PM   node: 8adeae192bff2396
iot-2/type/Child/id/12345/evt/IotSensor/fmt/json :
msg.payload : Object
▸{ message: "Entry", Date and Time:
"11/19/2022, 12:36:22 PM", name:
"kishor", lat: 11.663579, lon:
78.146254 }
```

OUTPUT:



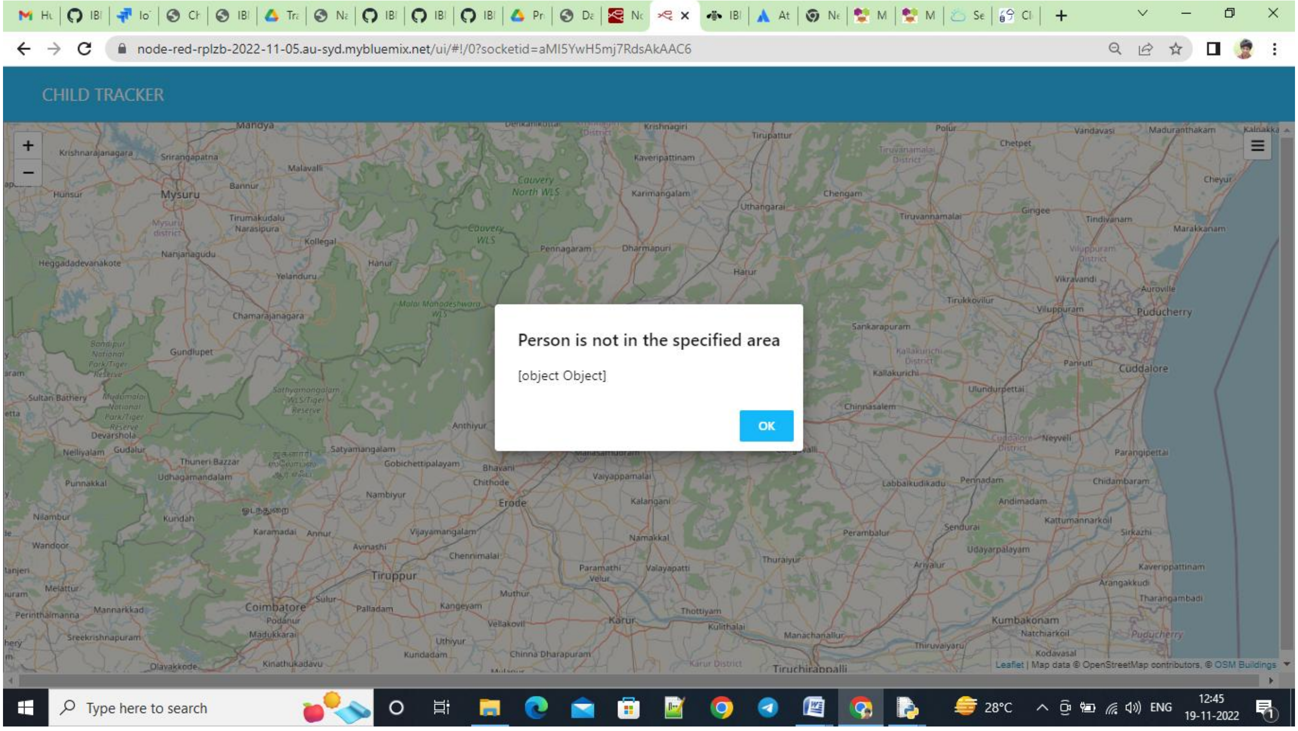
kishor
lat, lon : 11.663579, 78.146254

WHEN WE GIVE OUT AREA LOCATION:



```
11/19/2022, 12:43:39 PM   node: 8adeae192bff2396
iot-2/type/Child/id/12345/evt/IotSensor/fmt/json :
msg.payload : Object
▸{ message: "Exit", Date and Time:
"11/19/2022, 12:43:38 PM", name:
"kishor", lat: 12.7345, lon: 13.202 }

11/19/2022, 12:43:40 PM   node: 7f01a02dd0a70558
iot-2/type/Child/id/12345/evt/IotSensor/fmt/json :
msg.payload : Object
▸{ message: "Person is not in the
specified…" }

11/19/2022, 12:43:41 PM   node: 7f01a02dd0a70558
iot-2/type/Child/id/12345/evt/IotSensor/fmt/json :
msg.payload : string[111]
"{"status_code":999,"message":"You
need to complete one transaction of
100 INR or more before using API
route."}"
```

OUTPUT :

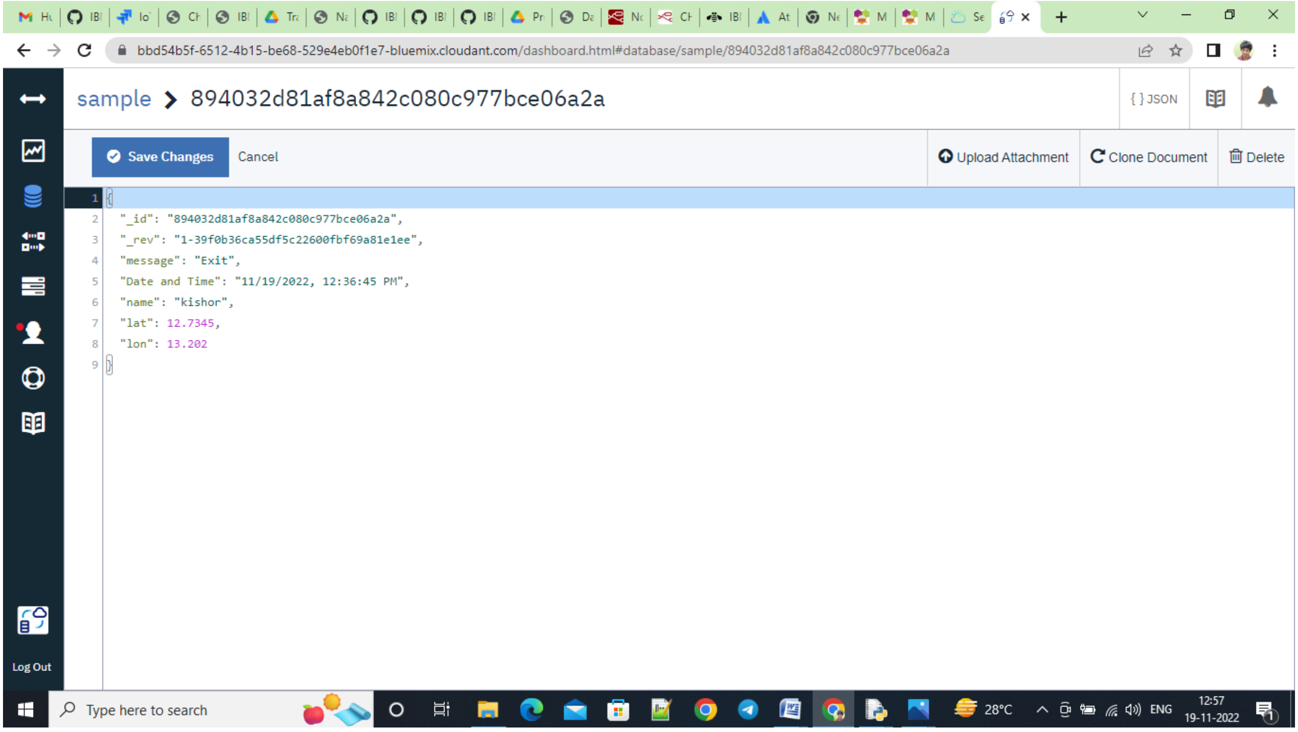

node-red-rplzb-2022-11-05.au-syd.mybluemix.net/ui/#!/0?socketid=aMI5YwH5mj7RdsAkAAC6
CHILD TRACKER
Mysuru
Erode
Tiruppur
Coimbatore
Karur
Puducherry
Cuddalore
Leaflet | Map data © OpenStreetMap contributors, © OSM Buildings
Type here to search
28°C
ENG
12:45
19-11-2022

Person is not in the specified area

[object Object]

OK

STORED DATA IN THE DATABASE WE HAVE CREATED:



bbd54b5f-6512-4b15-be68-529e4eb0f1e7-bluemix.cloudant.com/dashboard.html#database/sample/894032d81af8a842c080c977bce06a2a
sample
894032d81af8a842c080c977bce06a2a
{ } JSON
Save Changes
Cancel
Upload Attachment
Clone Document
Delete
Log Out
Type here to search
28°C
ENG
12:57
19-11-2022

```
{
  "_id": "894032d81af8a842c080c977bce06a2a",
  "_rev": "1-39f0b36ca55df5c22600fbf69a81e1ee",
  "message": "Exit",
  "Date and Time": "11/19/2022, 12:36:45 PM",
  "name": "kishor",
  "lat": 12.7345,
  "lon": 13.202
}
```