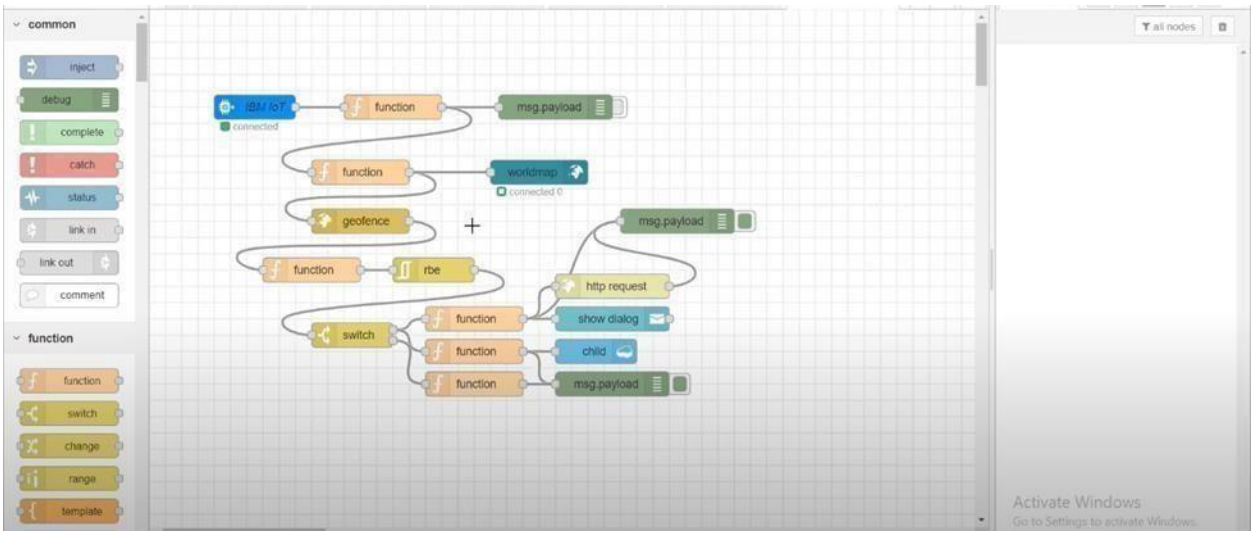
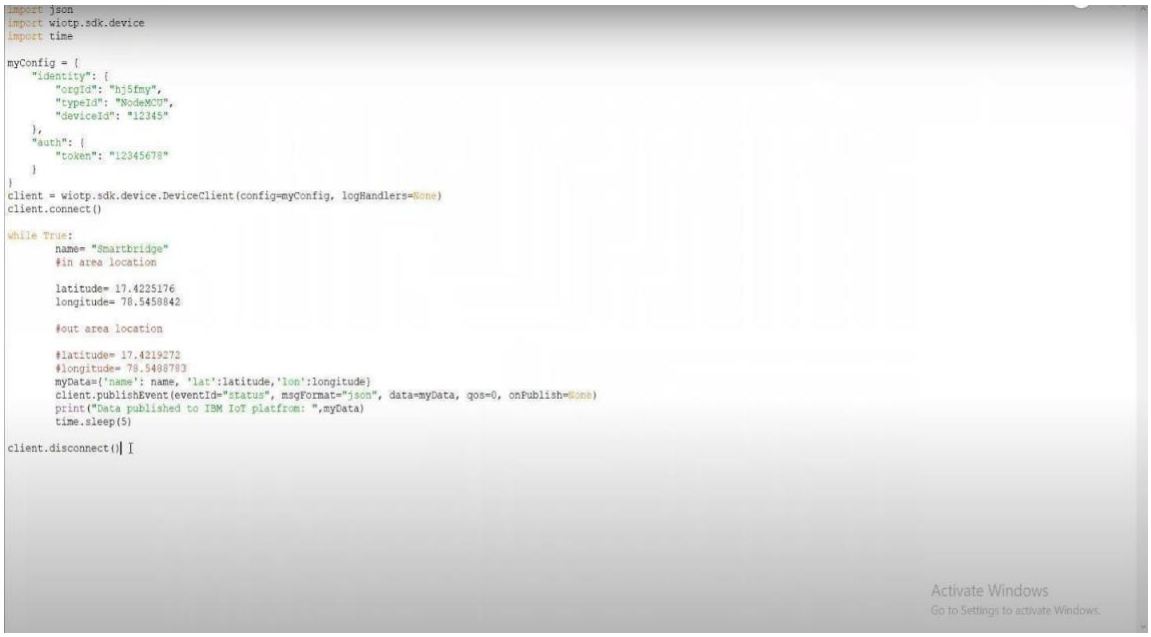
Team ID	**PNT2022TMID54021**
Project Name	**Smart Waste Management for Metropolitan Cities**

NODE RED SERVICE

Step 1: Connect the blocks.

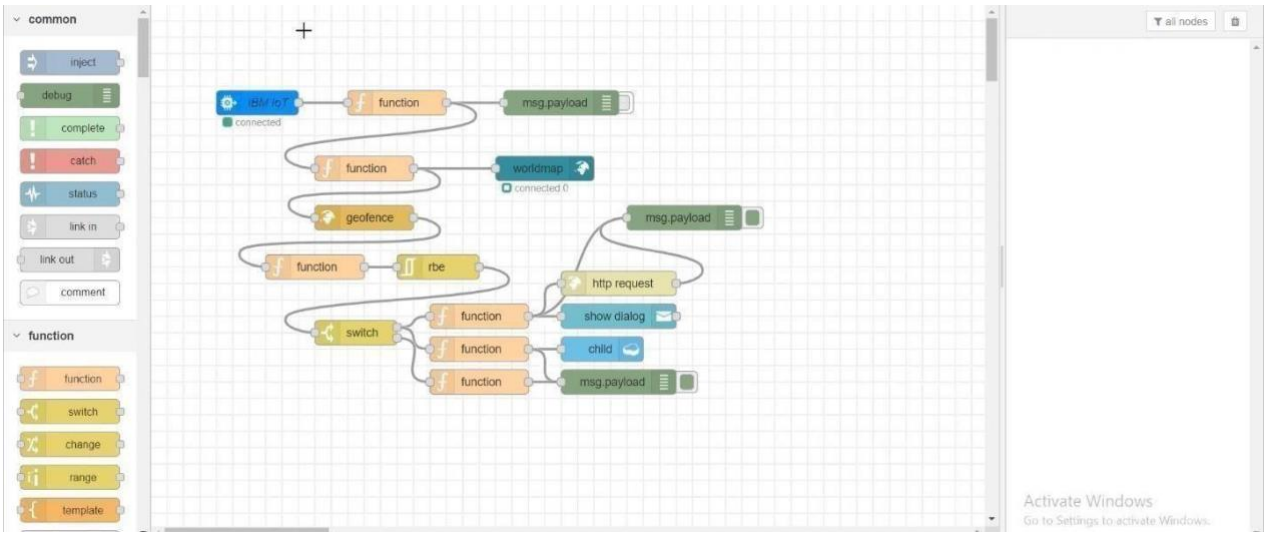




```
import json
import wiotp.sdk.device
import time

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= 78.5498703
        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()
```

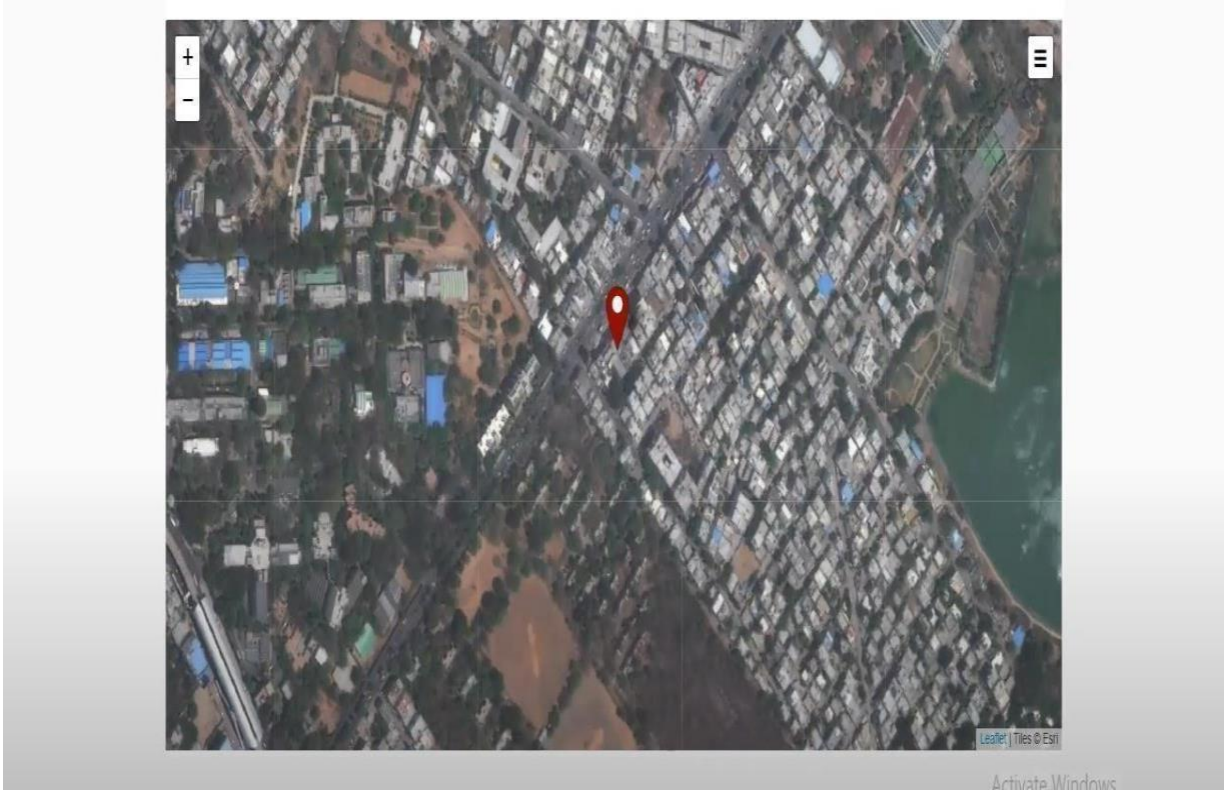
Step 2: Create python code.

Step 3: Click the geo-fence node.

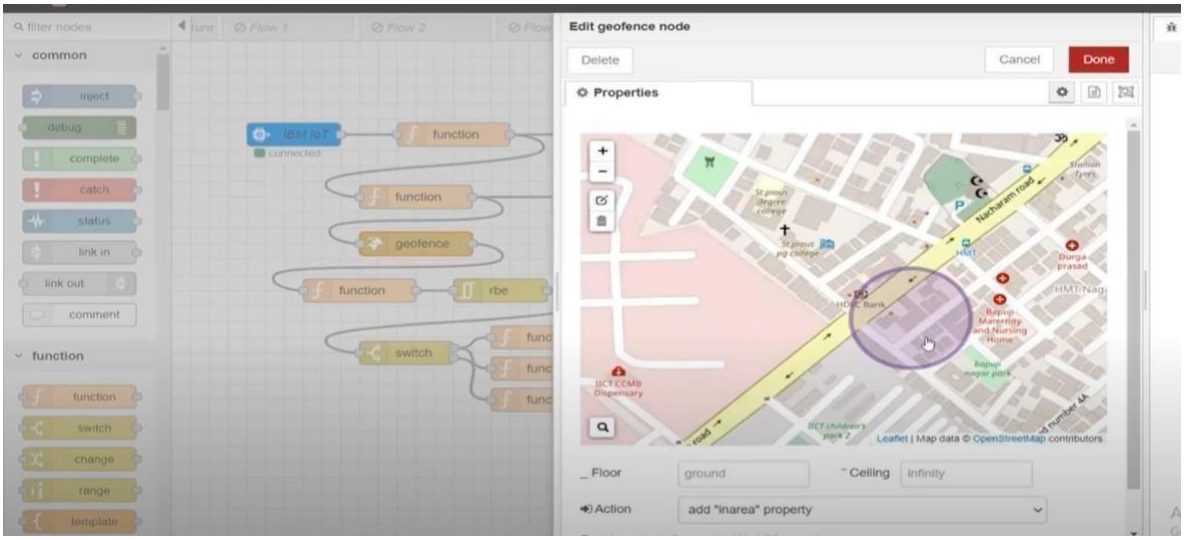


Step 4: Create the geo-fence area in the map.

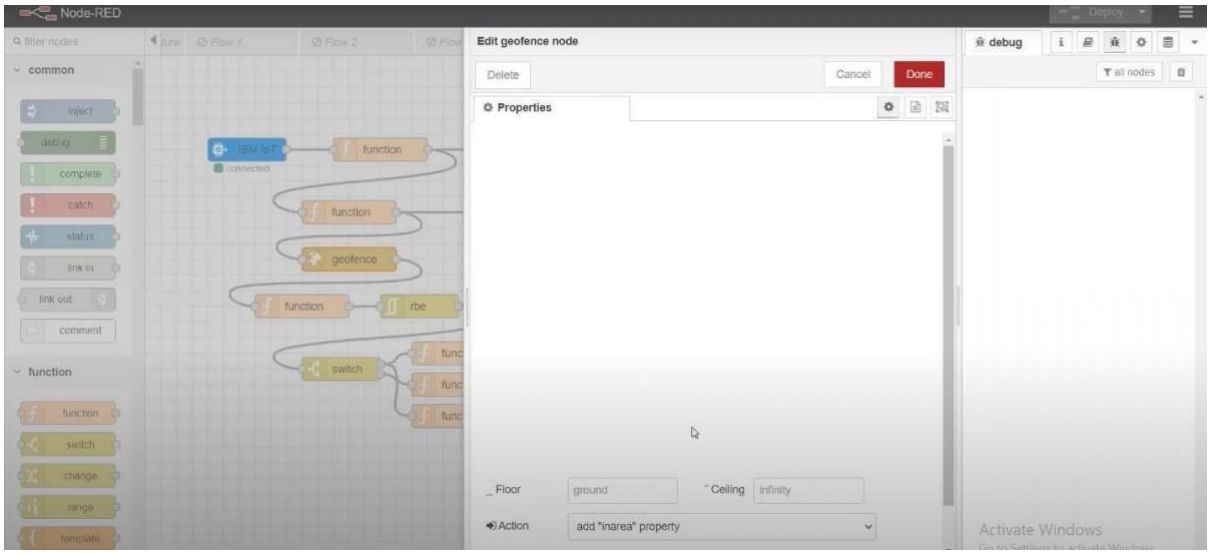
Step



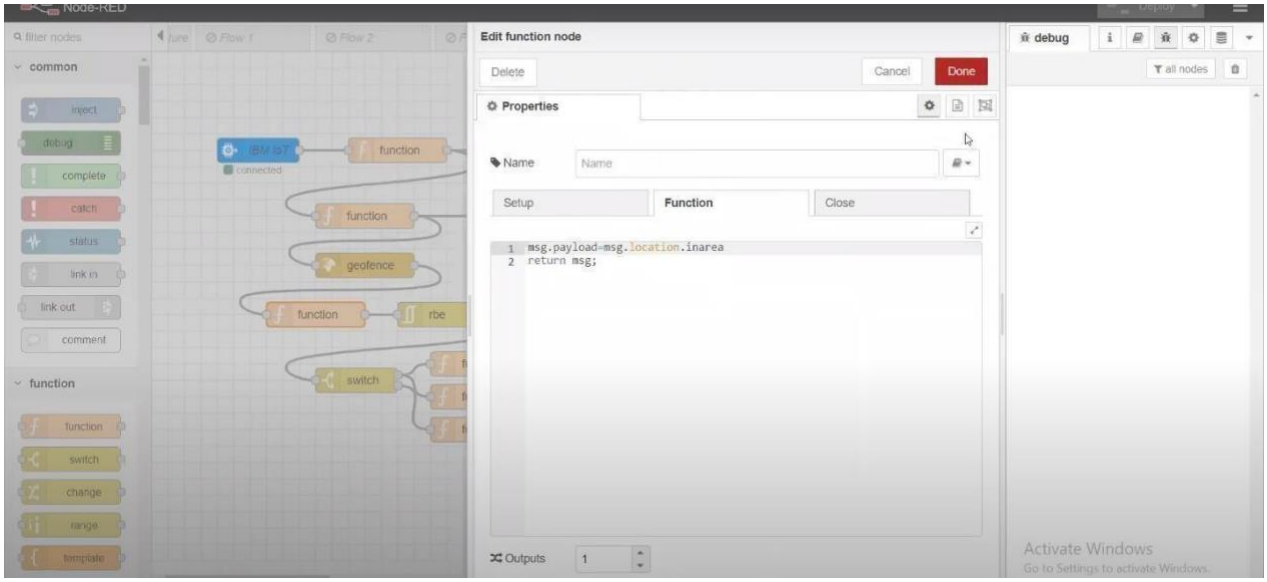
5: Create geo-fence in a particular area.



Step 6: Select the function block.

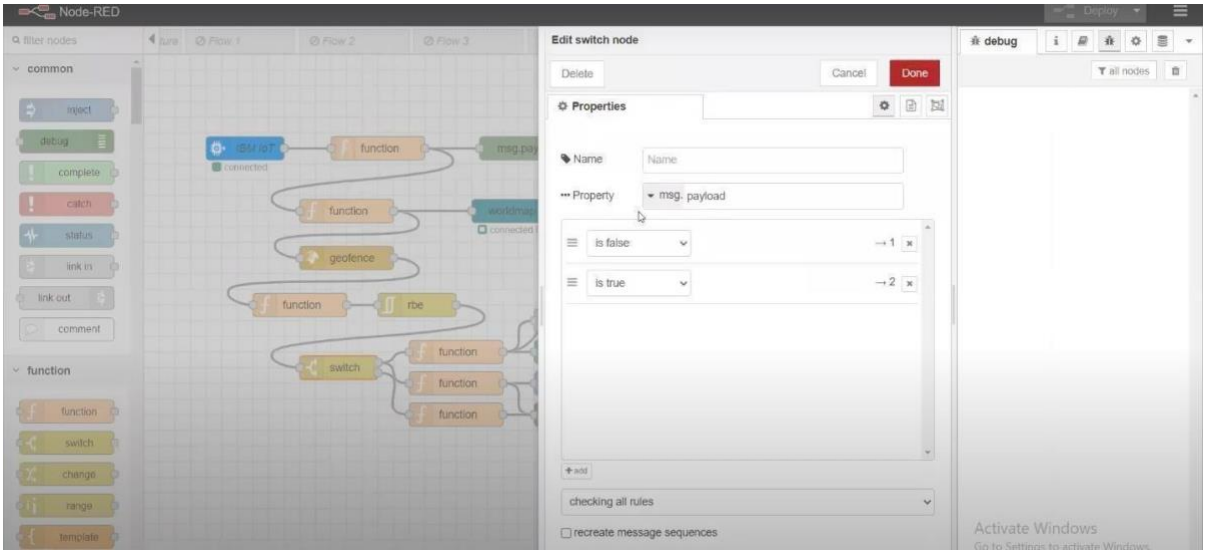


Step 7: Select the message payload.

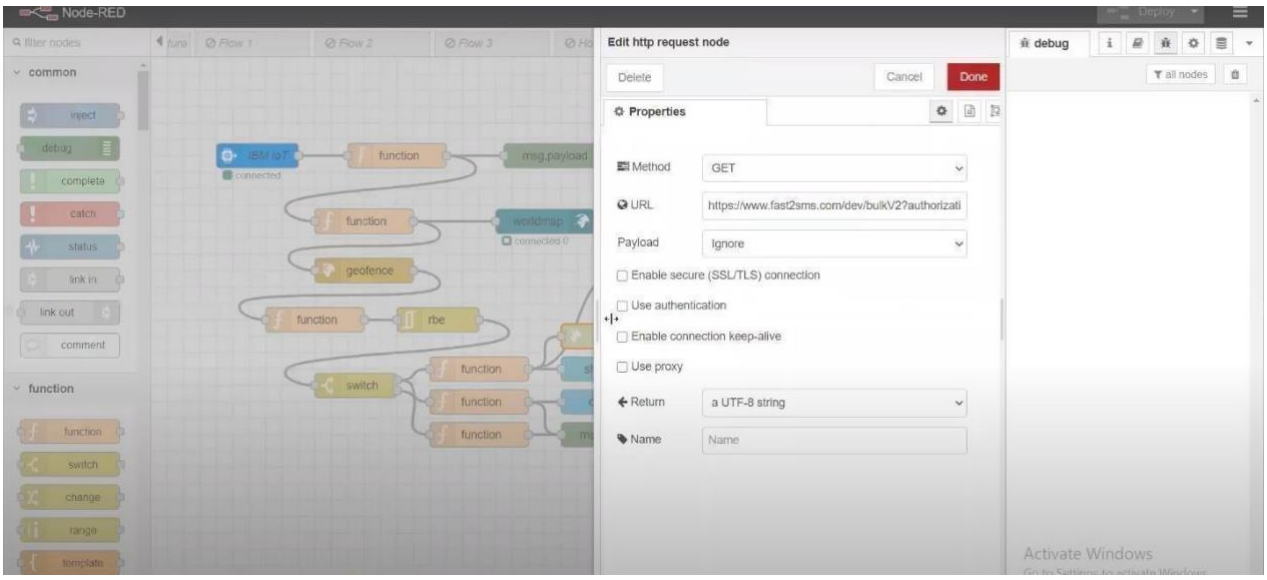


Step 8: To identify the person in area.

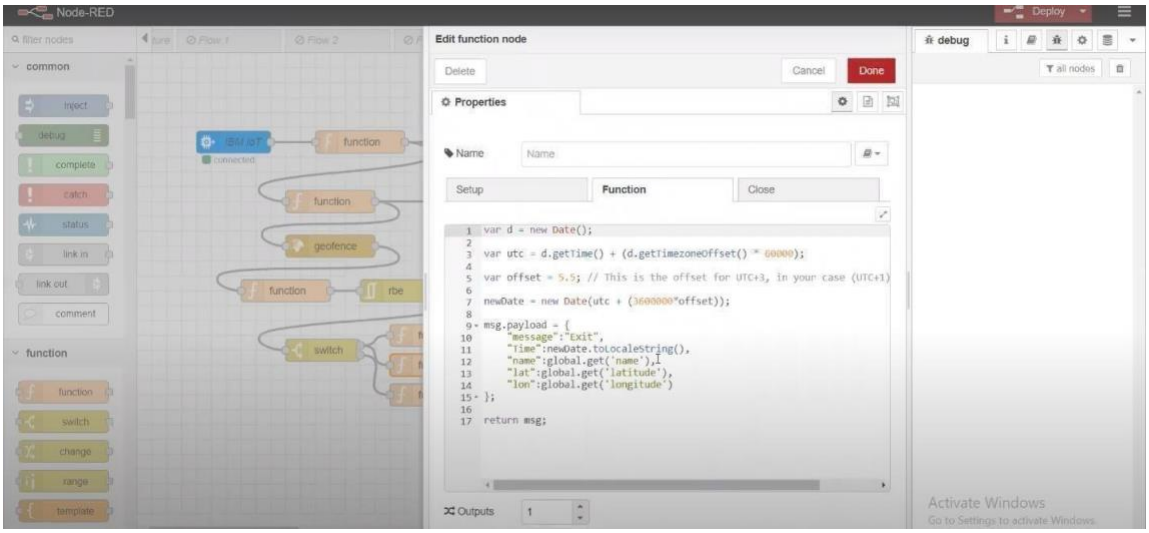
Step



9: Select the http request to send message to parent or guardian.

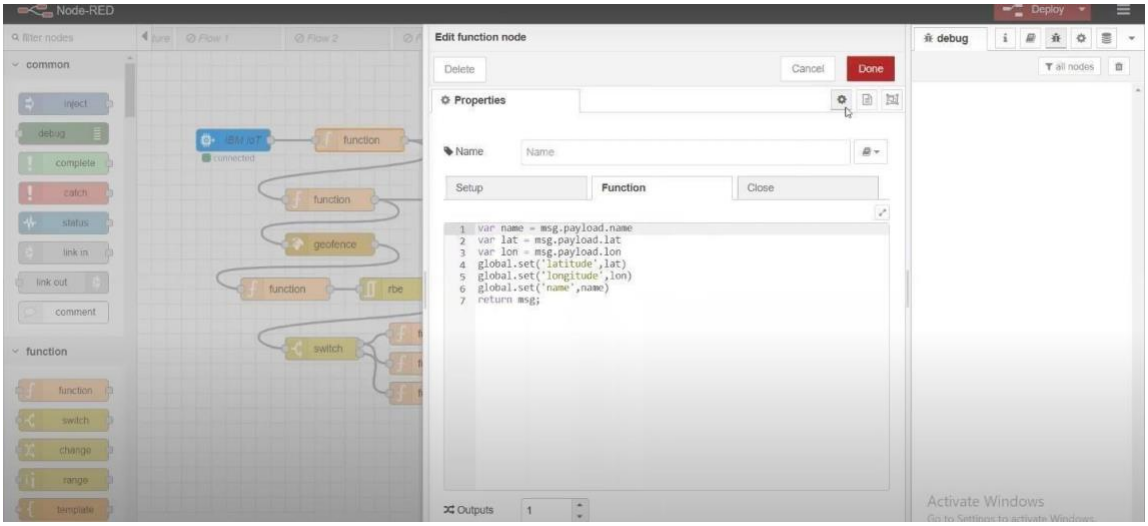


Step 10: For sending the message with time.

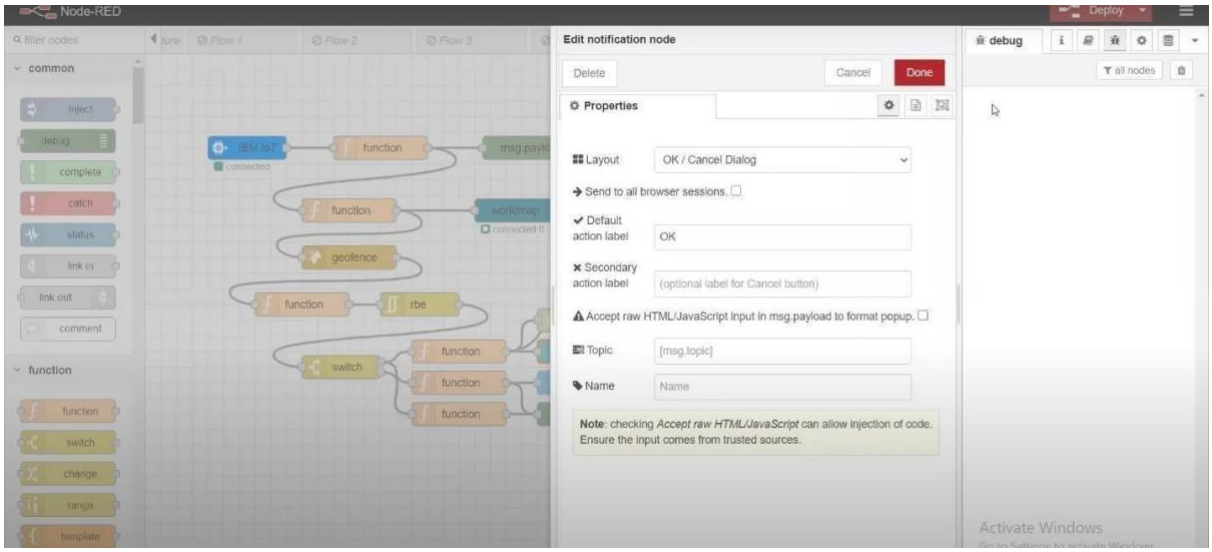

Node-RED
Deploy
filter nodes
common
inject
debug
complete
catch
status
link in
link out
comment
function
function
switch
change
range
template
Flow 1
Flow 2
IBM IoT
connected
function
function
geofence
function
rbe
switch
Edit function node
Delete
Cancel
Done
Properties
Name
Name
Setup
Function
Close
1 var d = new Date();
2
3 var utc = d.getTime() + (d.getTimezoneOffset() * 60000);
4
5 var offset = 5.5; // This is the offset for UTC+3, in your case (UTC+1)
6
7 newDate = new Date(utc + (3600000*offset));
8
9 msg.payload = {
10 "message":"Exit",
11 "time":newDate.toLocaleString(),
12 "name":global.get('name'),
13 "lat":global.get('latitude'),
14 "lon":global.get('longitude')
15 };
16
17 return msg;
Outputs
1
debug
all nodes
Activate Windows
Go to Settings to activate Windows.

Step

10: Click show dialog for notifying the popup alert.



Step


Node-RED
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function
function
switch
change
range
template
function
function
msg.payl
function
worldmap
geofence
function
rbe
switch
function
function
function
connected
Edit notification node
Delete
Cancel
Done
Properties
Layout
OK / Cancel Dialog
Send to all browser sessions.
Default action label
OK
Secondary action label
(optional label for Cancel button)
Accept raw HTML/JavaScript input in msg.payload to format popup.
Topic
[msg.topic]
Name
Name
Note: checking Accept raw HTML/JavaScript can allow injection of code. Ensure the input comes from trusted sources.
debug
all nodes
Activate Windows

Step

Step 11: Create another payload and to pass the data to geo-fence and world map.

Step

12: Click the world map to see the location.