

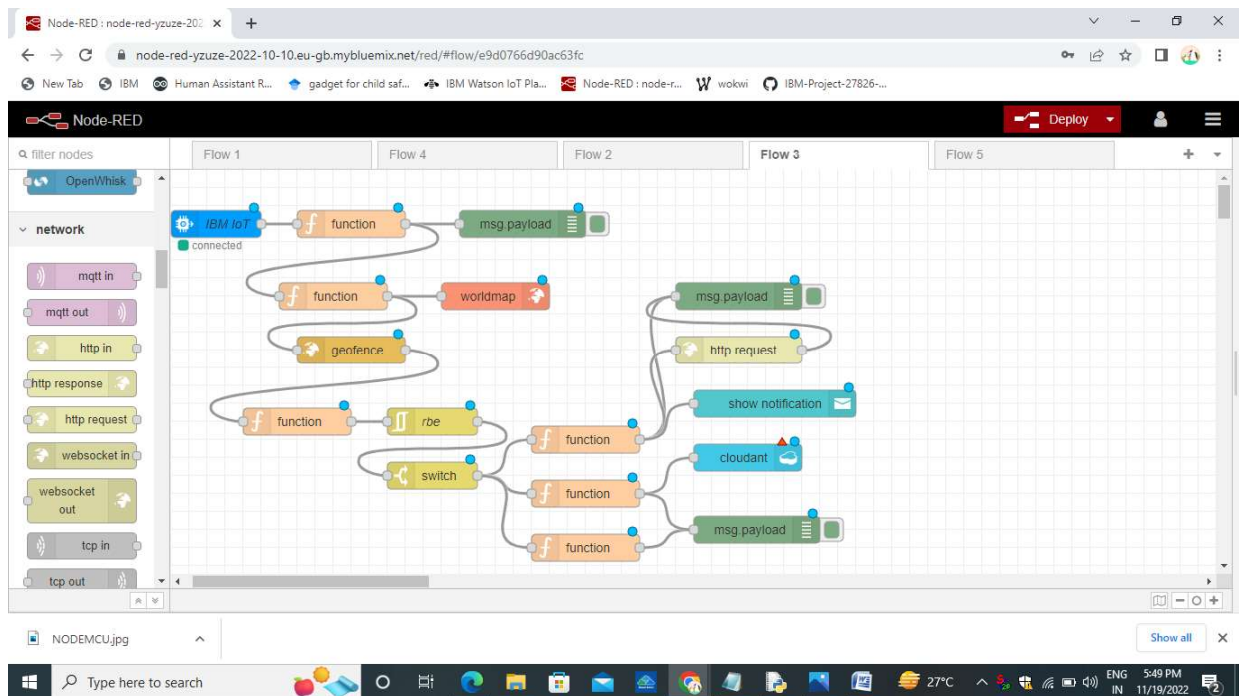
Project Development Phase

Delivery of Sprint – 4

Date	8 November 2022
Team ID	PNT2022TMID49797
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification

NODE-RED-CLOUDANT DB COMMUNICATION

STEP1:NODE CONNECTION



STEP2:CODE THE NODES

Node-RED: node-red-2022-10-10-eu-gb.mybluemix.net/red/#flow/e9d0766d90ac63fc

Filter nodes: network

Flow 1: ibmiot in (connected) → function → msg payload

Flow 4: function → worldmap → geofence → function → rbe → switch → function → function → function

Flow 2: msg payload → http request → show → cloud → msg payload

Edit ibmiot in node

Properties:

- Authentication: API Key
- API Key: IOT
- Input Type: Device Event
- Device Type: ☐ All or CHILDTRACKING
- Device Id: ☐ All or TRACK
- Event: ☒ All or +
- Format: ☐ All or json
- QoS: 0
- ☐ Enabled

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STEP3:CODE THE FUNCTION NODE

Node-RED: node-red-2022-10-10-eu-gb.mybluemix.net/red/#flow/e9d0766d90ac63fc

Filter nodes: network

Flow 1: ibmiot in (connected) → function → msg payload

Flow 4: function → worldmap → geofence → function → rbe → switch → function → function → function

Flow 2: msg payload → http request → show → cloud → msg payload

Edit function node

Properties:

- Name: Name
- Setup: ☐ On Start: ☐ On Message: ☐ On Stop: ☐

```

1 var name = msg.payload.name
2 var lat=msg.payload.lat
3 var lon = msg.payload.lon
4 global.set('latitude',lat)
5 global.set('longitude',lon)
6 global.set('name',name)
7 return msg;

```

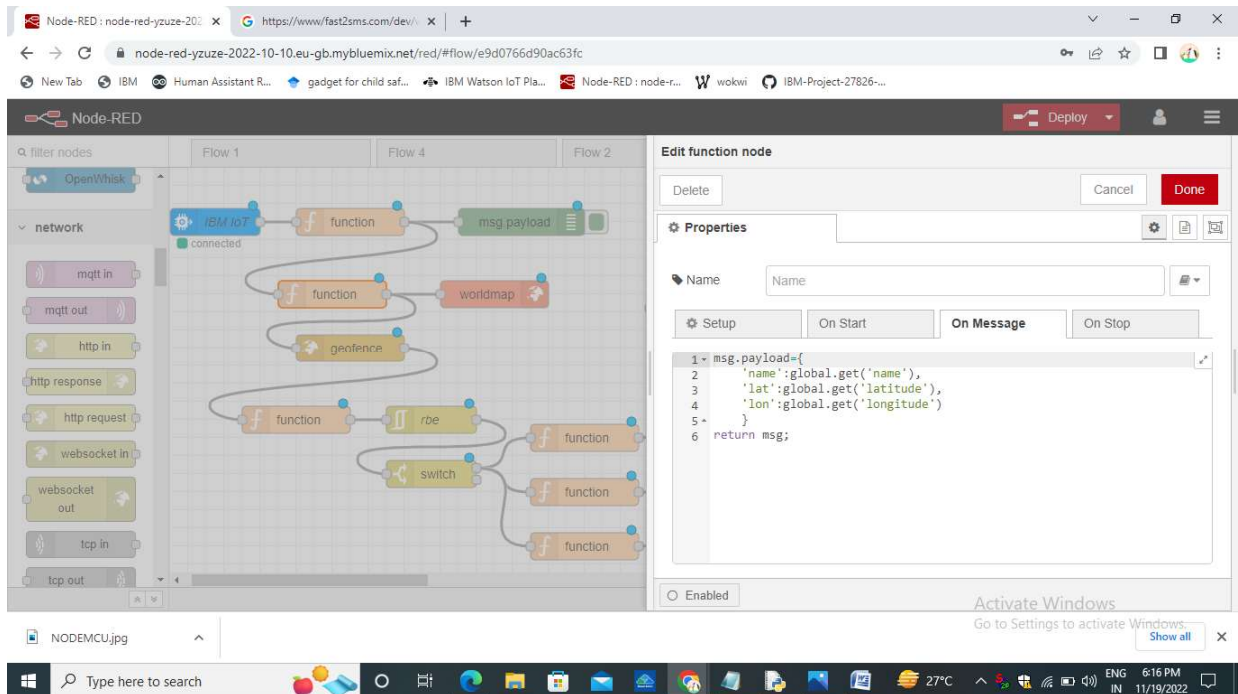
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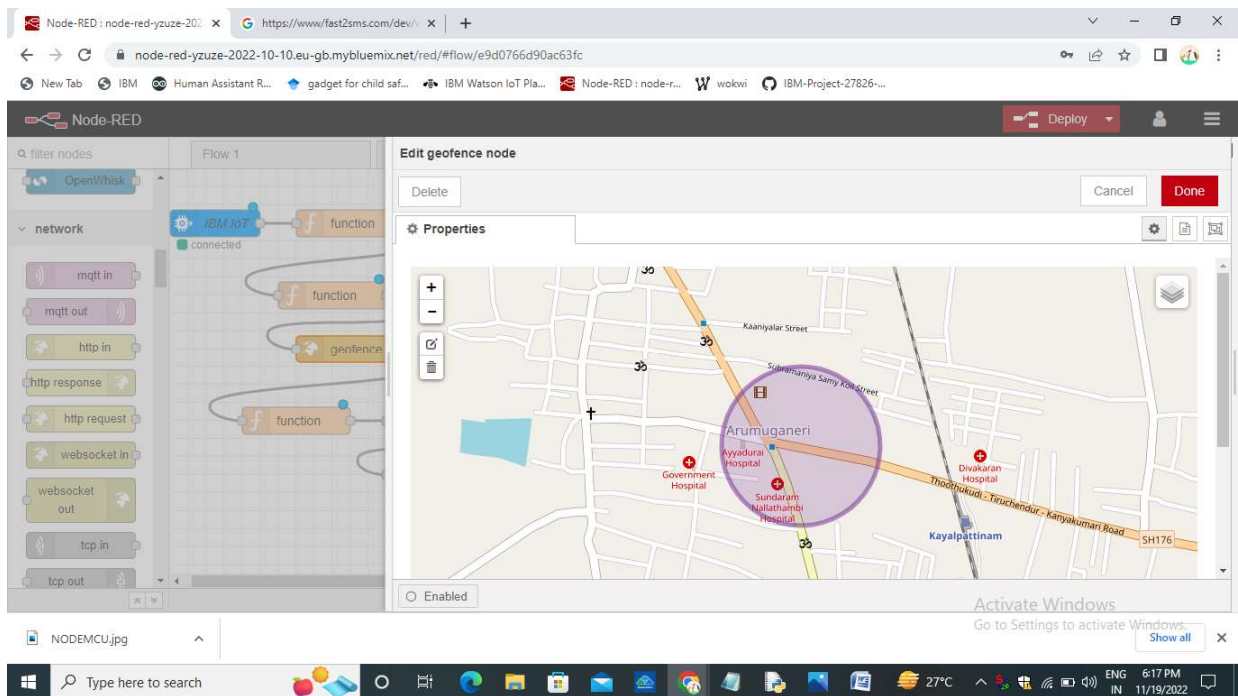
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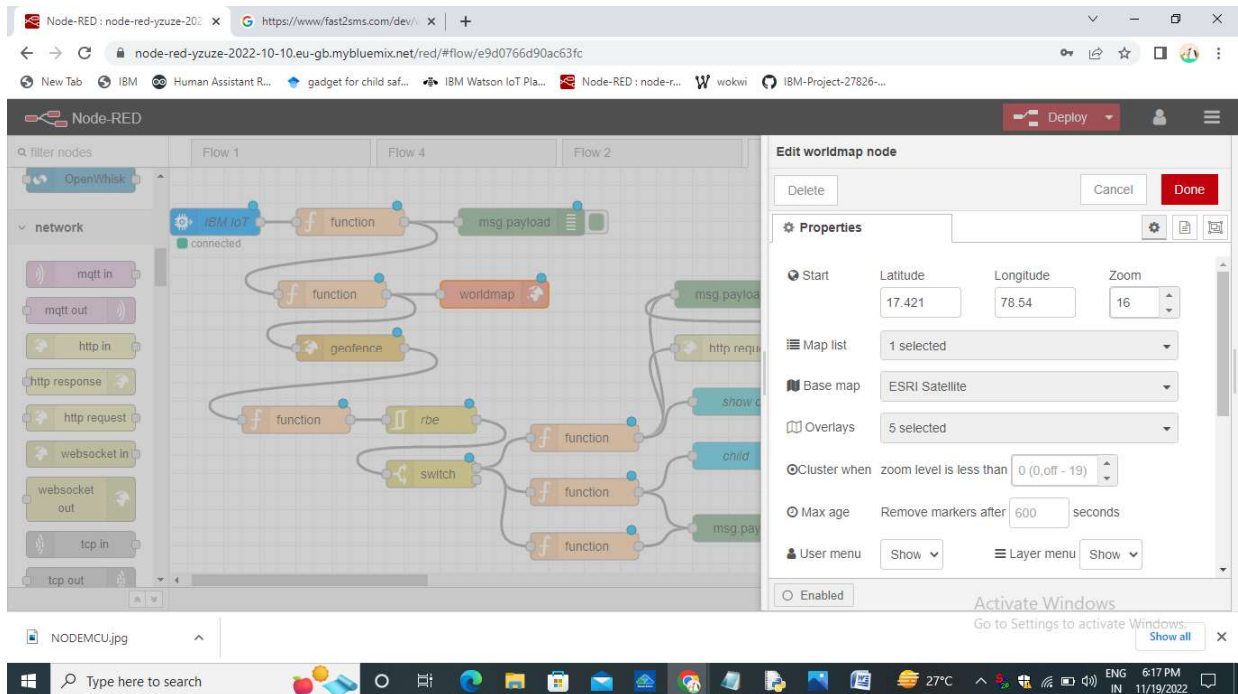
STEP 4: VARIOUS FUNCTION NODES



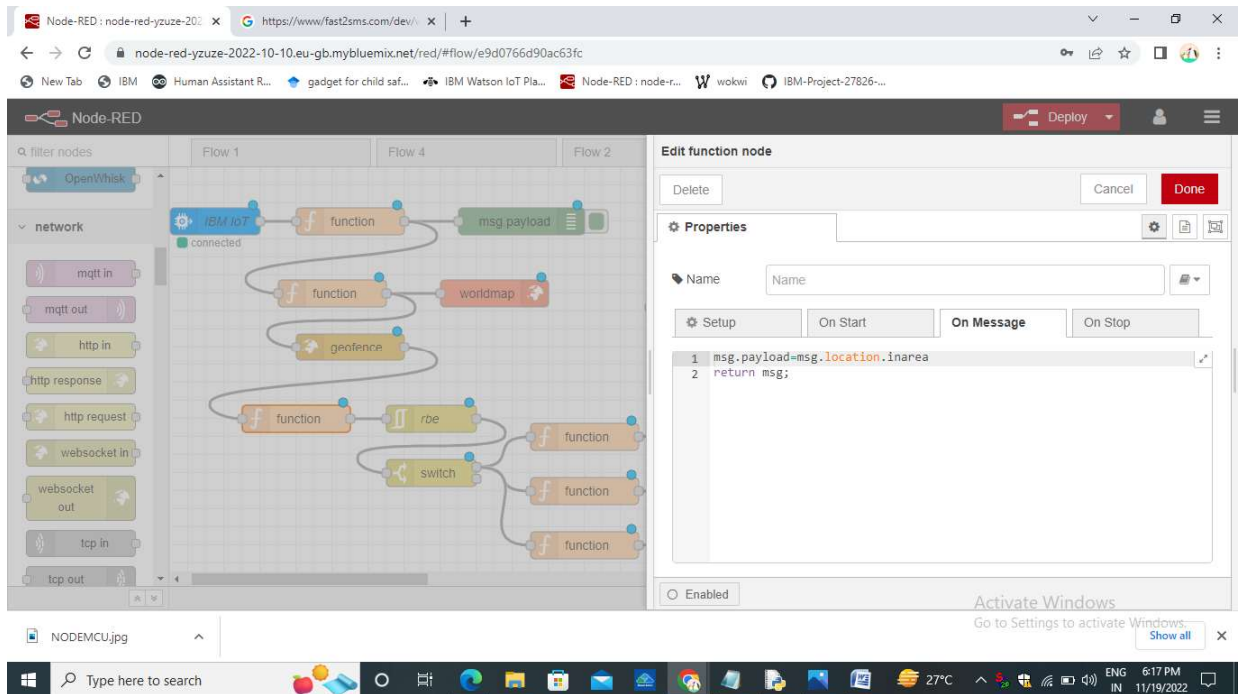
STEP 5:GEOFENCE MODE



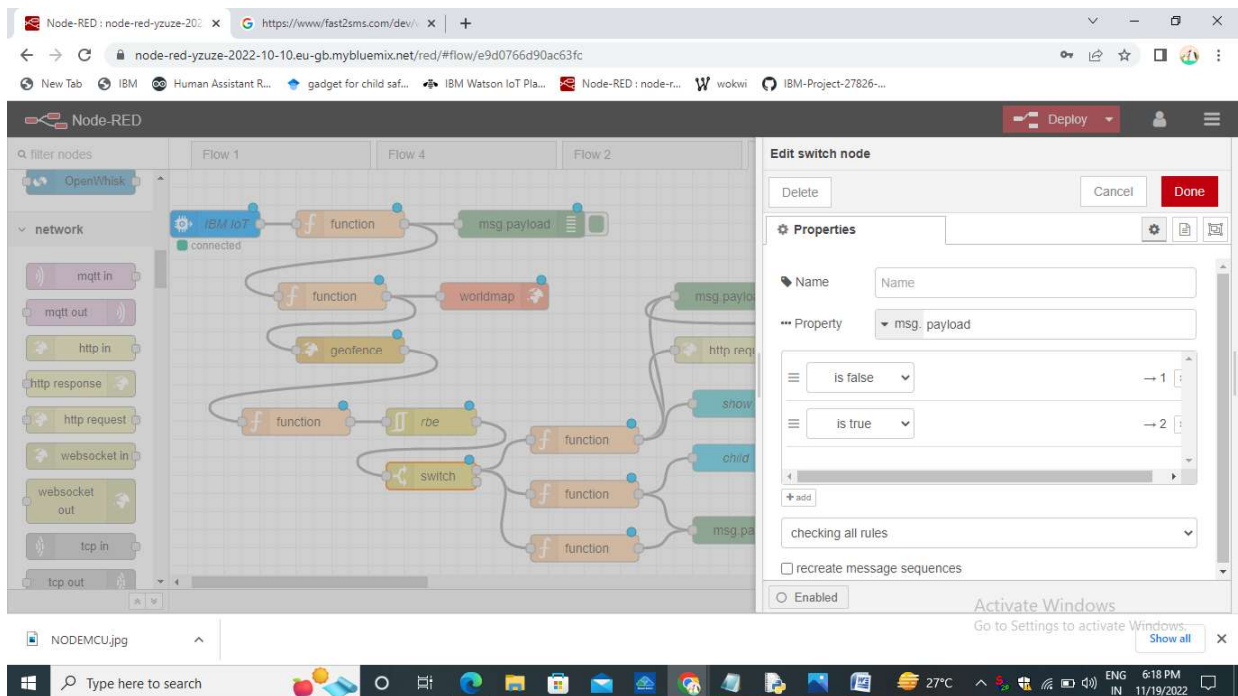
STEP 6: WORLD MAP



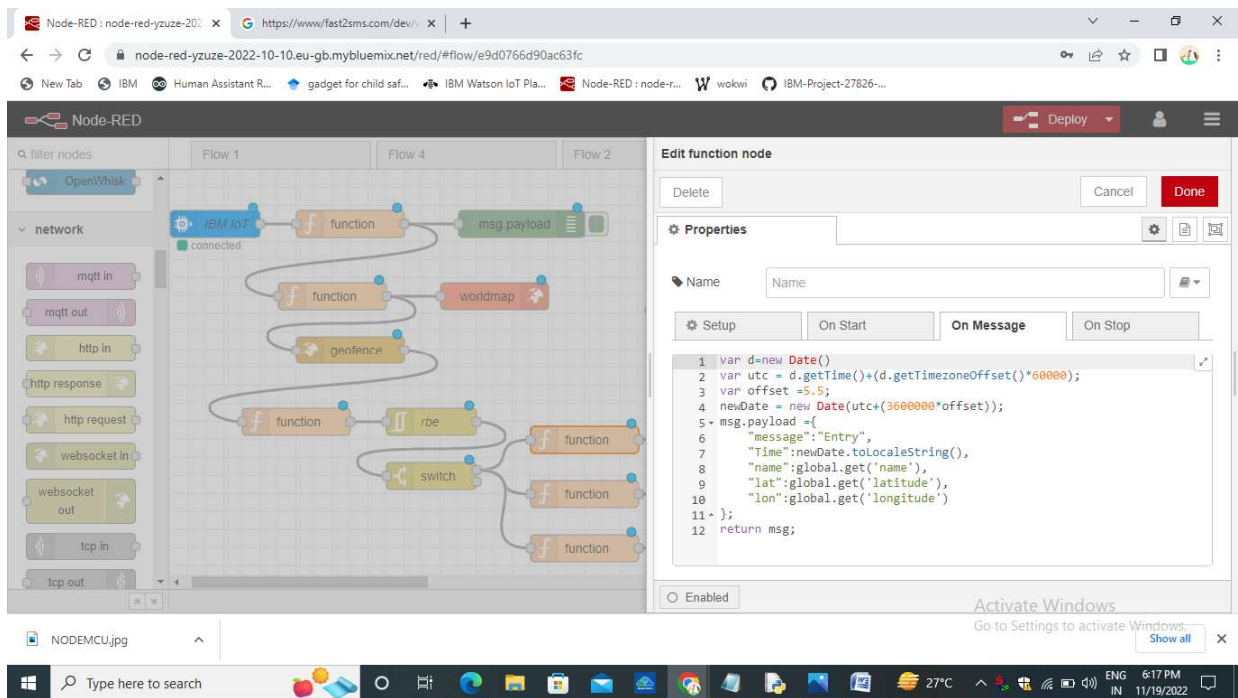
STEP 7: VARIOUS FUNCTION NODE



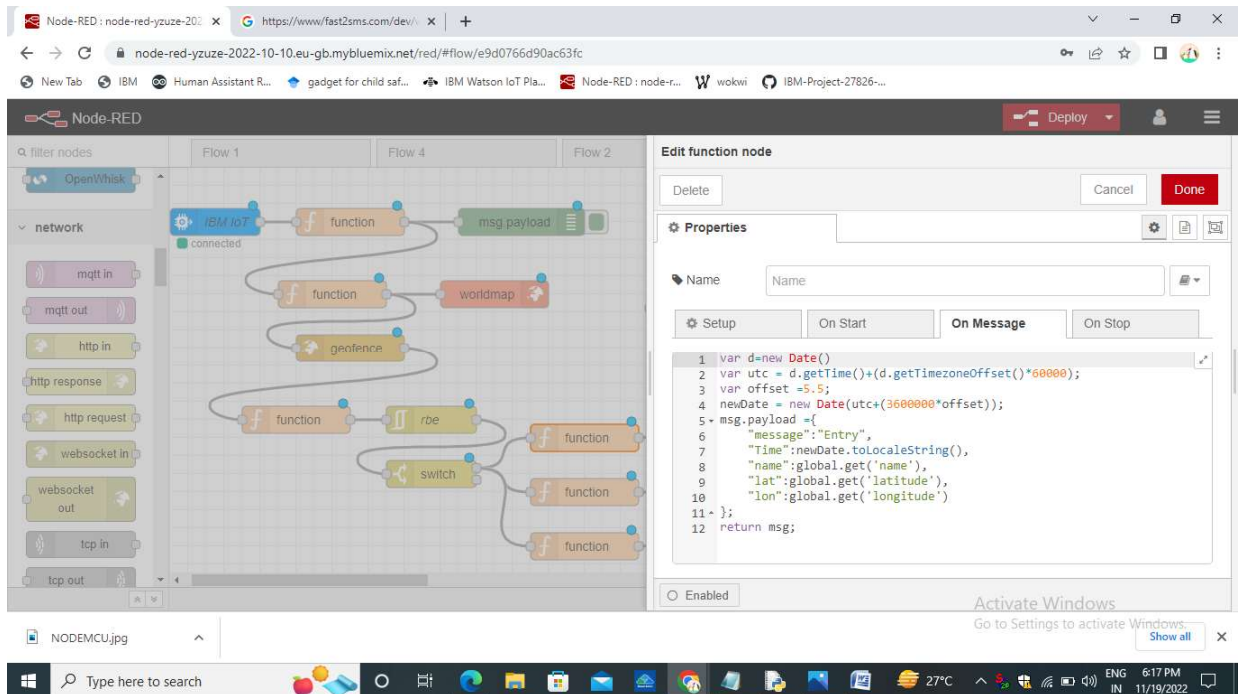
STEP 8: DIFFERENT FUNCTION NODES



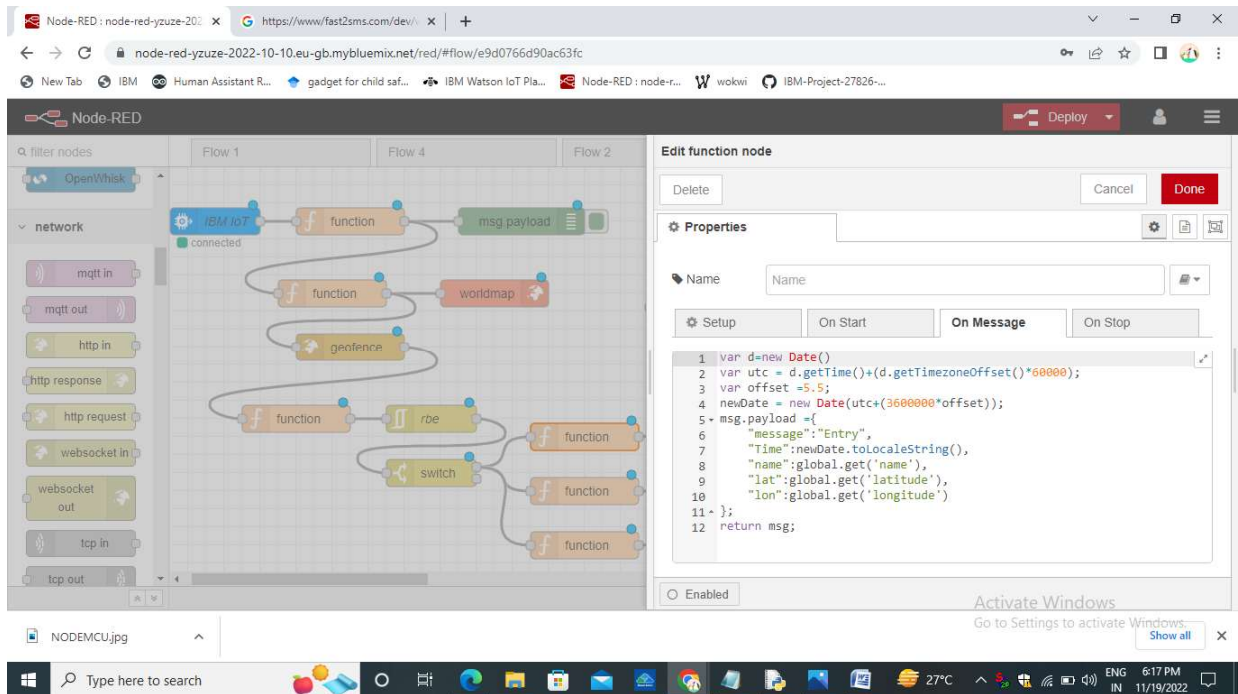
STEP 9: CODING THE FUNCTION NODES



STEP 10:



STEP11:



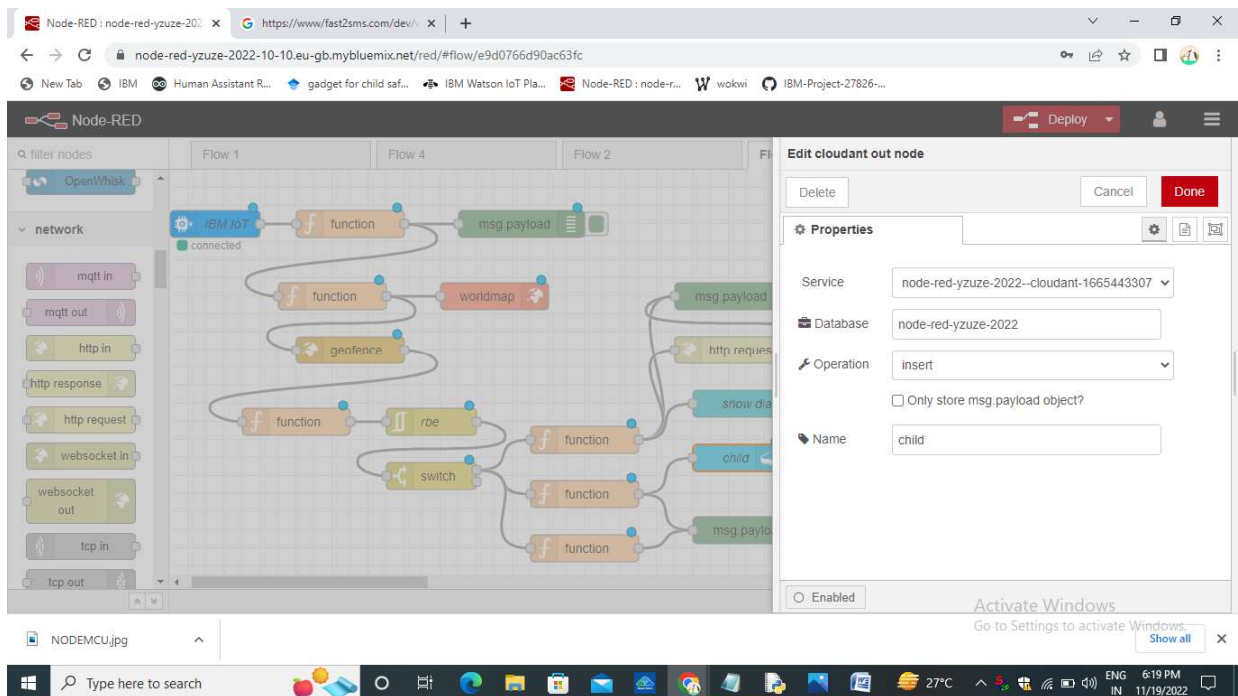
STEP 12: HTTP REQUEST

The screenshot shows the Node-RED web interface in a browser. The main workspace displays a flow with several nodes: an 'IBM IoT' node (connected), followed by a 'function' node, then a 'msg.payload' node, and a 'worldmap' node. There are also 'geofence' and 'rbe' nodes. The right sidebar shows the 'Edit http request node' dialog. The 'Properties' section is visible, showing the 'Method' set to 'GET', the 'URL' set to 'https://www.fast2sms.com/dev/wallet?authorizat', and the 'Payload' set to 'Ignore'. The 'Return' type is set to 'a UTF-8 string'. The 'Enabled' checkbox is checked.

STEP 13:NOTIFICATION NODE

The screenshot shows the Node-RED web interface in a browser. The main workspace displays a flow with several nodes: an 'IBM IoT' node (connected), followed by a 'function' node, then a 'msg.payload' node, and a 'worldmap' node. There are also 'geofence' and 'rbe' nodes. The right sidebar shows the 'Edit notification node' dialog. The 'Properties' section is visible, showing the 'Layout' set to 'OK / Cancel Dialog', the 'Send to all browser sessions' checkbox checked, the 'Default action label' set to 'OK', and the 'Secondary action label' set to '(optional label for Cancel button)'. The 'Accept raw HTML/JavaScript input in msg.payload to format popup.' checkbox is unchecked. The 'Class' is set to '[msg.className]' and the 'Topic' is set to '[msg.topic]'. The 'Enabled' checkbox is checked.

STEP 14:CLOUDANT NODE



RESULT:

THUS THE NODE-RED WEB APPLICATION USING GEOFENCE FOR CHILD SAFETY MONITORING WAS CREATED SUCCESSFULLY.