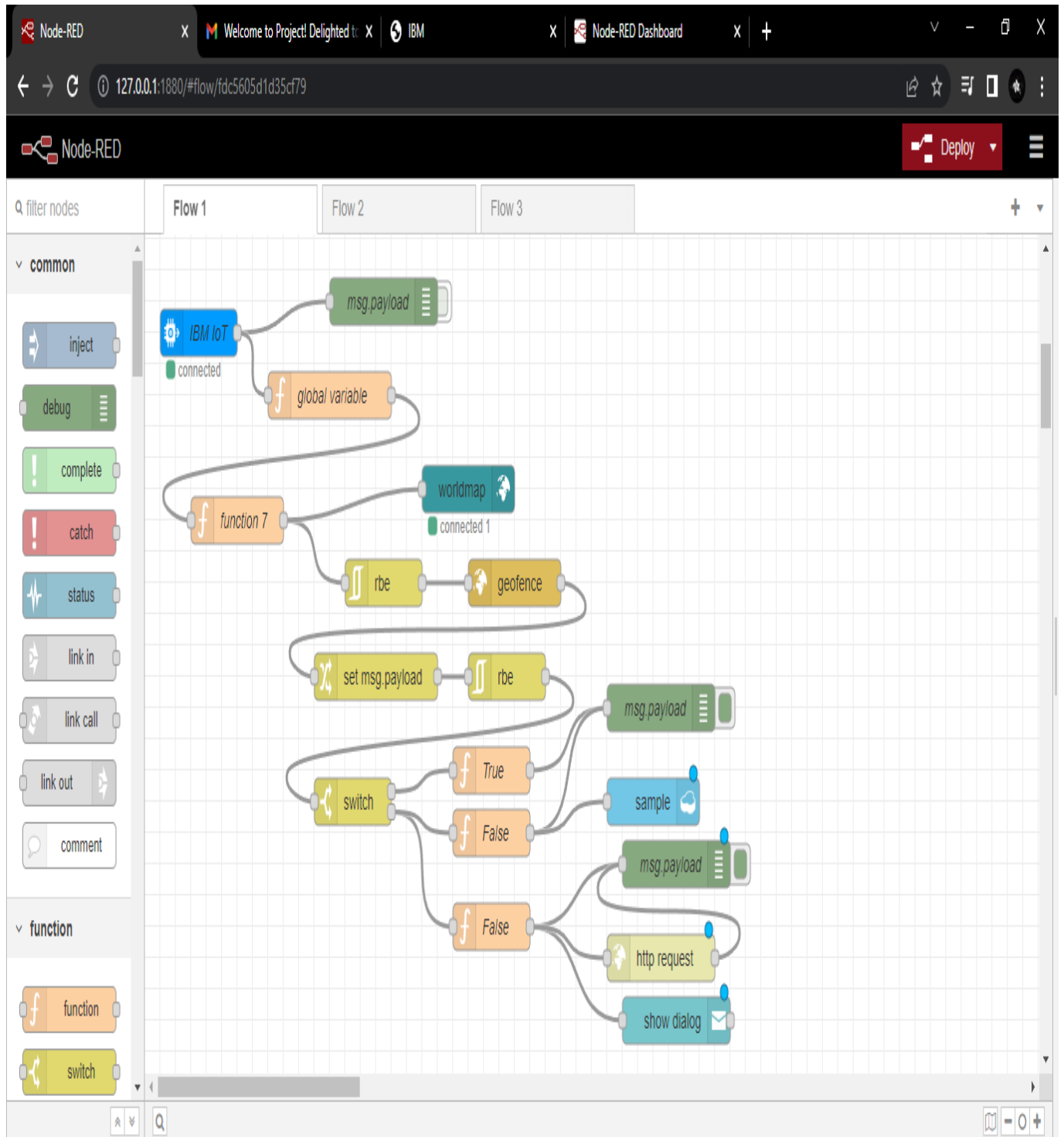


WEB APPLICATION USING NODE-RED :



CODE FOR GLOBAL VARIABLE NODE:

The screenshot displays the Node-RED web interface in a browser. The top navigation bar includes tabs for 'Service Details - IBM', 'IBM Watson IoT Platform', 'Node-RED', 'Welcome to Project!', 'IBM', and 'IBM-Project-46371-1'. The address bar shows the URL '127.0.0.1:1880/#flow/fdc5605d1d35cf79'. The main workspace shows 'Flow 1' with a sequence of nodes: 'inject', 'debug', 'complete', 'catch', 'status', 'link in', 'link call', 'link out', and 'comment'. A function node labeled 'function 7' is selected, and its configuration panel is open. The 'Name' field is set to 'global variable'. The 'On Message' tab is active, showing the following JavaScript code:

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

The 'Enabled' checkbox at the bottom of the configuration panel is checked. The right sidebar contains a 'debug' tab and a 'all nodes' dropdown menu. The Windows taskbar at the bottom shows the system clock as 8:17 PM on 11/9/2022, along with weather information (25°C Partly cloudy) and various application icons.

CODE FOR FUNCTION 7 NODE:

The screenshot displays the Node-RED web interface in a browser. The address bar shows the URL `127.0.0.1:1880/#flow/fdc5605d1d35cf79`. The interface includes a left sidebar with a node palette, a central workspace with a flow diagram, and a right sidebar with a debug console. The 'Edit function node' dialog is open, showing the configuration for 'function 7'. The 'Properties' section indicates the node is 'Enabled'. The 'On Message' tab is selected, displaying the following JavaScript code:

```
1 msg.payload={
2   'lat':global.get('latitude'),
3   'lon':global.get('longitude'),
4   'name': global.get('name'),
5 }
6 return msg;
```

The bottom of the image shows a Windows taskbar with various application icons, a search bar, and system status information including temperature (25°C), time (8:19 PM), and date (11/9/2022).

WORLD MAP:

The screenshot displays the Node-RED web interface in a browser. The top bar shows several open tabs: "Service Details - IBM", "IBM Watson IoT Platform", "Node-RED", "Welcome to Project", "IBM", and "IBM-Project-46371-16". The address bar indicates the URL "127.0.0.1:1880/#flow/fdc5605d1d35cf79".

The main workspace is titled "Node-RED" and shows a flow named "Flow 1". The flow includes an "IBM IoT" node (connected), a "global variable" node, a "function 7" node, and a "switch" node. The "function 7" node is connected to the "global variable" node, which is connected to the "switch" node. The "switch" node is connected to the "set msg.payload" node, which is connected to the "msg.payload" node.

The "Edit worldmap node" panel is open, showing the configuration for the world map node. The configuration includes:

- Group:** [Child Tracker] Map
- Size:** auto
- Start:** Latitude: 11.442882, Longitude: 78.1792434, Zoom: 9
- Map list:** 1 selected
- Base map:** OpenStreetMap
- Overlays:** 6 selected
- Cluster when zoom level is less than:** 0 (0, off - 19)
- Max age:** Remove markers after 600 seconds
- User menu:** Show
- Layer menu:** Hide
- Enabled:** ☐ Enabled

The bottom of the screen shows the Windows taskbar with the search bar and various application icons. The system tray on the right shows the temperature (25°C), time (8:20 PM), and date (11/9/2022).

GEO FENCE:

Service Details - IBM | IBM Watson IoT Platform | Node-RED | Welcome to Project | IBM | IBM-Project-46371-1

127.0.0.1:1880/#flow/fdc5605d1d35c79

Node-RED

Flow 1

filter nodes

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

switch

IBM IoT

connected

global v

function 7

Edit geofence node

Delete

Cancel

Done

Properties

Map

Ernapuram

Chinna Muthalai

Muthugapatty

Karupattipalayam

Anbu Nagar

Pattai

Poonga Nagar

Vettambadi

hindamangalam

Namakkal

Kuppampalayam

Murugan Nagar

Kavettipatti

Bharathi Nagar

Palayapalayam

Veetuvampalayam

Singilipatti

Perumapatti

Keerampur

Maniyarampudur

Veppanam

Bodinayaki

Jampalayam

Konur

Rasampalayam

Kanavaipatti

Vasanthapuram

Alangar

Thathipalayam

Valliappampatti

Ladduvadi

Kosavampatty

Pudur

Madakasampatti

Mel Eruchavari

Puthupatti

Kaalichetti

Leaflet | Map data © OpenStreetMap contributors

_Floor ground

_Ceiling infinity

Action add "inarea" property

Enable output of zones to WorldMap node

Enabled

debug

all nodes

all

Type here to search

25°C

8:21 PM

11/9/2022

SET.MSG.PAYLOAD:

The screenshot displays the Node-RED web interface in a browser. The top bar shows several open tabs: 'Service Details - IBM', 'IBM Watson IoT Platform', 'Node-RED', 'Welcome to Project', 'IBM', and 'IBM-Project-46371-16'. The address bar indicates the URL '127.0.0.1:1880/#flow/fdc5605d1d35cf79'. The main workspace shows 'Flow 1' with a sequence of nodes: 'IBM IoT' (connected), 'global variable', 'function 7', 'rbe', 'set msg.payload', and 'switch'. The 'set msg.payload' node is selected, and the 'Edit change node' dialog is open. The dialog has a 'Delete' button, 'Cancel' and 'Done' buttons, and a 'Properties' tab. Under the 'Properties' tab, the 'Name' field is empty. The 'Rules' section shows a 'Set' operation on 'msg.payload' to the value 'msg.location.inarea', with a 'Deep copy value' checkbox. The 'Enabled' checkbox at the bottom is unchecked. On the right, a 'debug' sidebar is visible with 'all nodes' and 'all' filters. The Windows taskbar at the bottom shows the search bar, task view, and various application icons, with the system clock indicating 8:22 PM on 11/9/2022.

SWITCH:

Service Details - IBM x IBM Watson IoT Platform x Node-RED x Welcome to Project! x IBM x IBM-Project-46371-16 x +

127.0.0.1:1880/#flow/fdc5605d1d35ct79

Node-RED

Deploy

filter nodes

Flow 1

Flow 2

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

IBM IoT

connected

msg.payload

global variable

function 7

rbe

set msg.payload

switch

Edit switch node

Delete

Cancel

Done

Properties

Name

Property

msg. payload

is true

→ 1

is false

→ 2

add

checking all rules

recreate message sequences

Enabled

debug

all nodes

all

Type here to search

25°C

8:22 PM

11/9/2022

TRUE NODE:

The screenshot displays the Node-RED web interface in a browser. The top navigation bar includes tabs for 'Service Details - IBM', 'IBM Watson IoT Platform', 'Node-RED', 'Welcome to Project', 'IBM', and 'IBM-Project-46371-16'. The address bar shows the URL '127.0.0.1:1880/#flow/fdc5605d1d35cf79'. The Node-RED interface features a left sidebar with a 'filter nodes' search bar and two categories: 'common' (containing nodes like inject, debug, complete, catch, status, link in, link call, link out, and comment) and 'function' (containing function and switch nodes). The main workspace, labeled 'Flow 1', contains an 'IBM IoT' node (status: connected), a 'function' node, and a 'function 7' node. The 'function 7' node is selected, and its 'Edit function node' dialog is open. The dialog has tabs for 'Properties', 'Setup', 'On Start', 'On Message', and 'On Stop'. The 'On Message' tab is active, showing a JavaScript function that generates a message payload. The function code is as follows:

```
1 var d = new Date();
2 var utc = d.getTime() + (d.getTimezoneOffset() * 60000);
3 var offset = 5.5;
4 var newDate = new Date(utc + (3600000 * offset));
5 msg.payload = {
6   "message": "Entry",
7   "Date and Time": newDate.toLocaleString(),
8   "name": global.get('name'),
9   "lat": global.get('latitude'),
10  "lon": global.get('longitude')
11 };
12 return msg;
```

At the bottom of the dialog, there is an 'Enabled' checkbox. To the right of the dialog is a 'debug' sidebar with icons for information, console, and settings, and a dropdown menu for 'all nodes'.

The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates a temperature of 25°C, volume, network status, and the date/time: 8:23 PM, 11/9/2022.

FALSE NODE:

The screenshot shows the Node-RED web interface in a browser. The browser's address bar displays the URL `127.0.0.1:1880/#flow/fdc5605d1d35cf79`. The Node-RED interface includes a left sidebar with a node palette, a central workspace, and a right sidebar with a debug console. The node palette is divided into 'common' and 'function' categories. The 'common' category contains nodes like inject, debug, complete, catch, status, link in, link call, link out, and comment. The 'function' category contains function and switch nodes. In the workspace, a flow named 'Flow 1' is visible, featuring an 'IBM IoT' node connected to a 'function 7' node. The 'function 7' node is selected, and its configuration panel is open. The configuration panel has a 'Name' field set to 'False' and tabs for 'Setup', 'On Start', 'On Message', and 'On Stop'. The 'On Message' tab is active, showing a JavaScript code editor with the following code:

```
1 var d = new Date();
2 var utc = d.getTime() + (d.getTimezoneOffset() * 60000);
3 var offset = 5.5;
4 var newDate = new Date(utc + (3600000 * offset));
5 msg.payload = {
6   "message": "Exit",
7   "Date and Time": newDate.toLocaleString(),
8   "name": global.get('name'),
9   "lat": global.get('latitude'),
10  "lon": global.get('longitude')
11 };
12 return msg;
13
```

At the bottom of the configuration panel, there is an 'Enabled' checkbox which is currently checked. The right sidebar shows a 'debug' tab with a dropdown menu set to 'all nodes' and a trash icon. The Windows taskbar at the bottom of the screen shows the search bar, several application icons, and the system clock indicating 8:24 PM on 11/9/2022.

FALSE NODE:

The screenshot shows the Node-RED web interface in a browser. The address bar displays the URL `127.0.0.1:1880/#flow/fdc5605d1d35cf79`. The interface includes a left sidebar with a node palette, a central workspace with a flow diagram, and a right sidebar with a debug console.

The **Edit function node** dialog is open for a node named **False**. The dialog has a **Properties** section with a **Name** field containing the text **False**. Below this are four tabs: **Setup**, **On Start**, **On Message** (which is selected), and **On Stop**. The **On Message** tab contains the following JavaScript code:

```
1 msg.payload = {  
2   "message": "Person is not in the specified area"  
3 };  
4 return msg;
```

At the bottom of the dialog, there is an **Enabled** checkbox which is currently checked. The right sidebar shows a **debug** tab and a list of nodes.

SAMPLE NODE:

The screenshot displays the Node-RED web interface in a browser. The browser's address bar shows the URL `127.0.0.1:1880/#flow/fdc5605d1d35cf79`. The Node-RED interface includes a top bar with a "Deploy" button and a sidebar on the left with a "filter nodes" search bar and a list of node categories: "common" (inject, debug, complete, catch, status, link in, link call, link out, comment) and "function" (function, switch). The main workspace shows a flow with nodes: "global variable", "function 7", "rbe", "set msg payload", and "switch". A configuration panel for the "cloudant out" node is open, showing fields for Host, Username, Password, and Name. The Host field contains `https://apikey-v2-21m0n00eyc0gearojre4cacrhjx`, the Username field contains `apikey-v2-21m0n00eyc0gearojre4cacrhjx8kdilbp`, the Password field is masked with dots, and the Name field contains `Name`. The panel also includes "Delete", "Cancel", and "Update" buttons, a "Properties" section, and a status bar at the bottom indicating "Enabled" and "1 node uses this config". The Windows taskbar at the bottom shows the system clock as 8:26 PM on 11/9/2022.

Service Details - IBM x IBM Watson IoT Platf x Node-RED x Welcome to Project! x IBM x IBM-Project-46371-16 x

127.0.0.1:1880/#flow/fdc5605d1d35cf79

Node-RED Deploy

filter nodes

Flow 1 Flow 2

common

- inject
- debug
- complete
- catch
- status
- link in
- link call
- link out
- comment

function

- function
- switch

global variable

function 7

rbe

set msg payload

switch

Edit cloudant out node > Edit cloudant node

Delete Cancel Update

Properties

Host `https://apikey-v2-21m0n00eyc0gearojre4cacrhjx`

Username `apikey-v2-21m0n00eyc0gearojre4cacrhjx8kdilbp`

Password

Name `Name`

Enabled 1 node uses this config On all flows

debug

all nodes all

Type here to search

25°C 8:26 PM 11/9/2022

SHOW DIALOG NODE:

The screenshot displays the Node-RED web interface in a browser. The top navigation bar includes tabs for 'Service Details - IBM', 'IBM Watson IoT Platform', 'Node-RED', 'Welcome to Project', 'IBM', and 'IBM-Project-46371-16'. The address bar shows the URL '127.0.0.1:1880/#flow/fdc5605d1d35cf79'. The main workspace shows a flow with nodes: 'global variable', 'function 7', 'rbe', 'set msg.payload', and 'switch'. The 'Edit notification node' dialog is open, showing the following configuration:

- Delete** button
- Cancel** button
- Done** button
- Properties** section:
 - 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**: ☐
 - Class**: [msg.className]
 - Topic**: person is not in the specified area
 - Name**: Name
- Note**: checking *Accept raw HTML/JavaScript* can allow injection of
- Enabled** checkbox

The bottom of the screen shows the Windows taskbar with the search bar, task icons, system tray (25°C, 8:25 PM, 11/9/2022), and notification area (3).

HTTP REQUEST NODE:

The screenshot displays the Node-RED web interface in a browser. The top navigation bar includes tabs for 'Service Details - IBM', 'IBM Watson IoT Platform', 'Node-RED', 'Welcome to Project', 'IBM', and 'IBM-Project-46371-16'. The address bar shows the URL '127.0.0.1:1880/#flow/fdc5605d1d35cf79'. The main workspace shows 'Flow 1' with a sequence of nodes: 'global variable', 'function 7', 'rbe', 'set msg.payload', and 'switch'. The left sidebar contains a 'filter nodes' search bar and two categories of nodes: 'common' (inject, debug, complete, catch, status, link in, link call, link out, comment) and 'function' (function, switch). The right sidebar features a 'debug' tab and filters for 'all nodes' and 'all'. The 'Edit http request node' configuration panel is open, showing the following settings:

- Method:** GET
- URL:** <https://www.fast2sms.com/dev/bulkV2?authorizati>
- Payload:** Send as request body
- ☐ Enable secure (SSL/TLS) connection
- ☐ Use authentication
- ☐ Enable connection keep-alive
- ☐ Use proxy
- ☐ Only send non-2xx responses to Catch node
- ☐ Disable strict HTTP parsing
- Return:** a UTF-8 string
- Headers:** (empty list)
- ☐ Enabled

The bottom of the image shows the Windows taskbar with the search bar, task view icon, and various application icons. The system tray on the right indicates a temperature of 25°C, volume, network status, and the date/time: 8:26 PM, 11/9/2022.