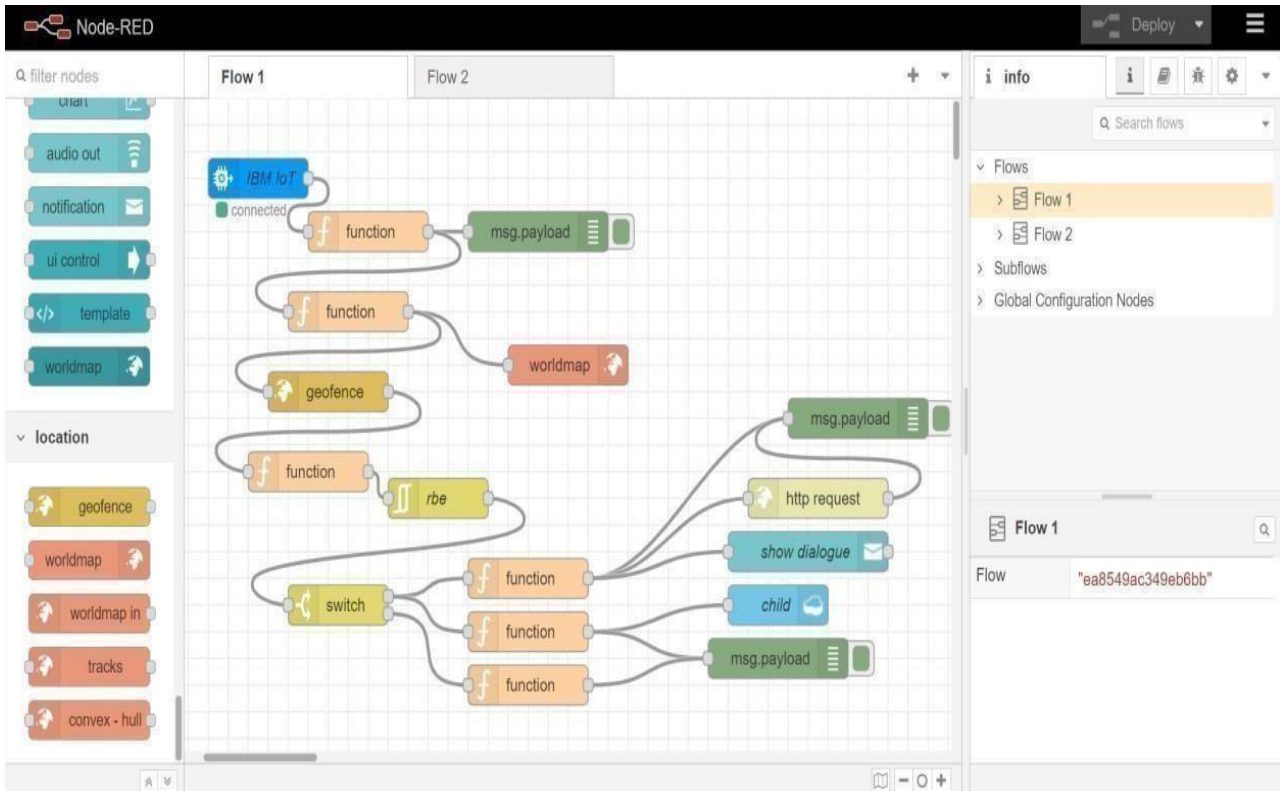


## Project Development Phase SPRINT-3

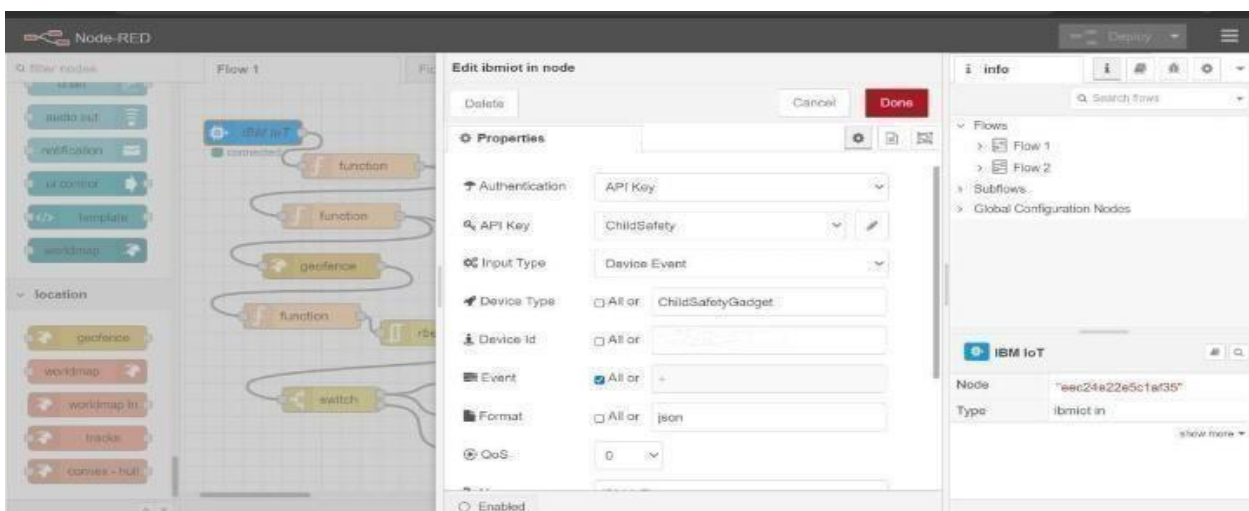
Date	8 November 2022
Team ID	PNT2022TMID31252
Project Name	Project - IOT Based Safety Gadget for Child Safety Monitoring & Notification

### NODE RED- Cloudant DB Communication:

#### Step 1: Connections



#### Step 2: Code in nodes



### Step 3: Edit function mode(code)

The screenshot shows the Node-RED interface with the 'Edit function node' panel open. The function code is as follows:

```
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;
```

The 'On Message' tab is selected. The right sidebar shows the 'Info' panel with the node ID '76ec77ccd270c2c7' and type 'function'.

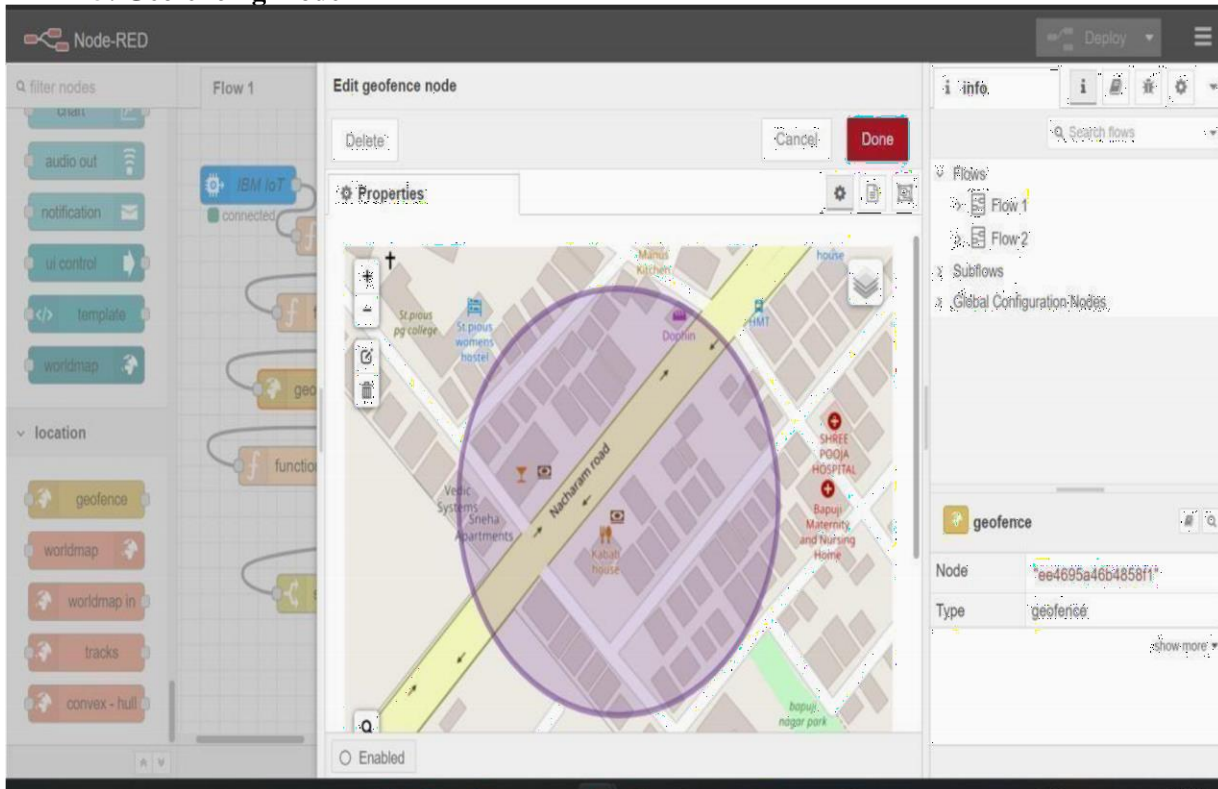
### Step 4:

The screenshot shows the Node-RED interface with the 'Edit function node' panel open. The function code is as follows:

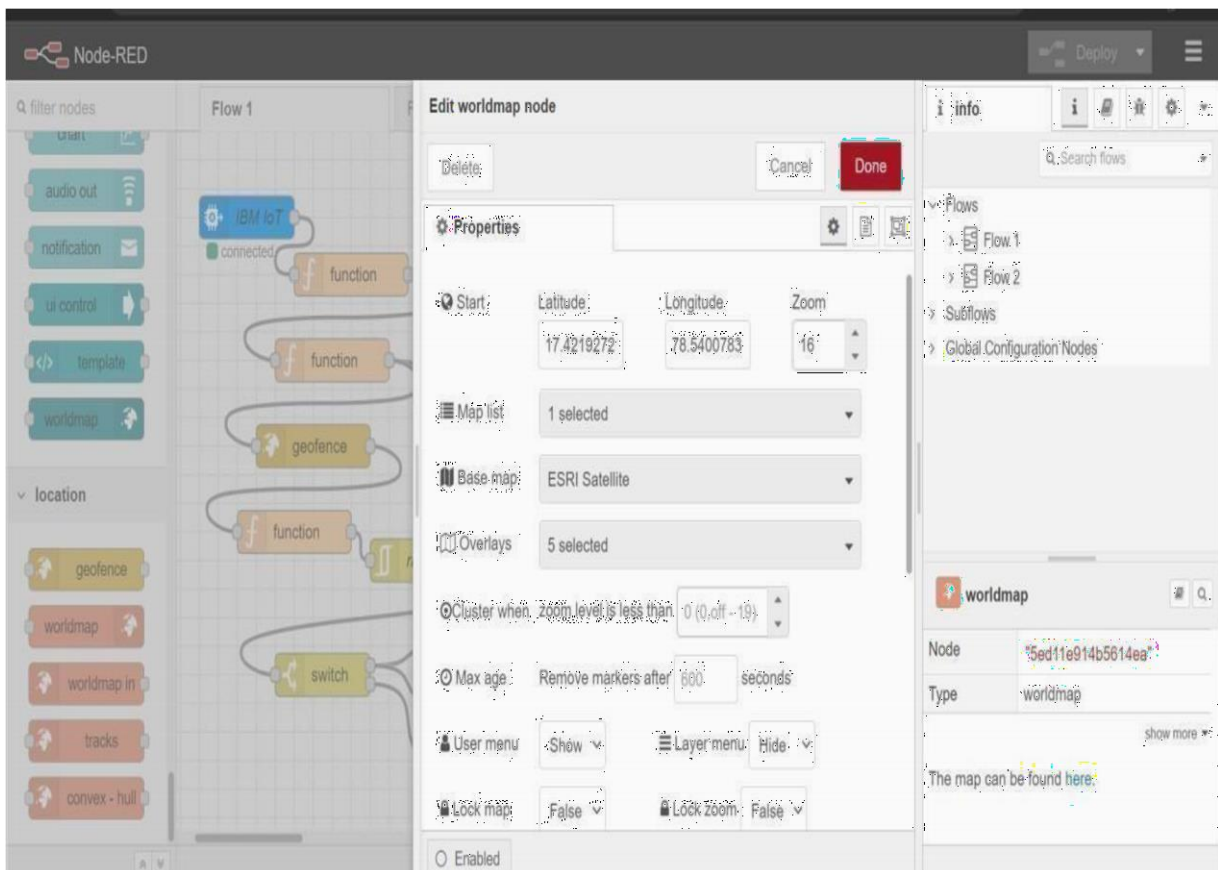
```
1 msg.payload={
2   name:global.get('name'),
3   lat:global.get('latitude'),
4   lon:global.get('longitude')
5 }
6 return msg;
```

The 'On Message' tab is selected. The right sidebar shows the 'Info' panel with the node ID '77b707bf262aa6f4' and type 'function'.

## 5: Geofencing mode



## Step 6: World map node with properties



## 7: Apply the code with different node

The screenshot shows the Node-RED web interface. On the left, a palette of nodes is visible, including 'audio out', 'notification', 'ui control', 'template', 'worldmap', and a 'location' category with 'geofence', 'worldmap', 'worldmap in', 'tracks', and 'convex-hull'. The main workspace shows a flow starting with an 'IBM IoT' node connected to a 'function' node. The 'Edit function node' dialog is open, displaying the following code:

```
1 msg.payload=msg.location.inarea
2 return msg;
```

The dialog also shows tabs for 'Properties', 'Setup', 'On Start', 'On Message', and 'On Stop'. The 'On Message' tab is selected. The 'info' sidebar on the right shows the node's details: Node ID '3585a4ac8098085f' and Type 'function'.

## Step 8: Code with different node

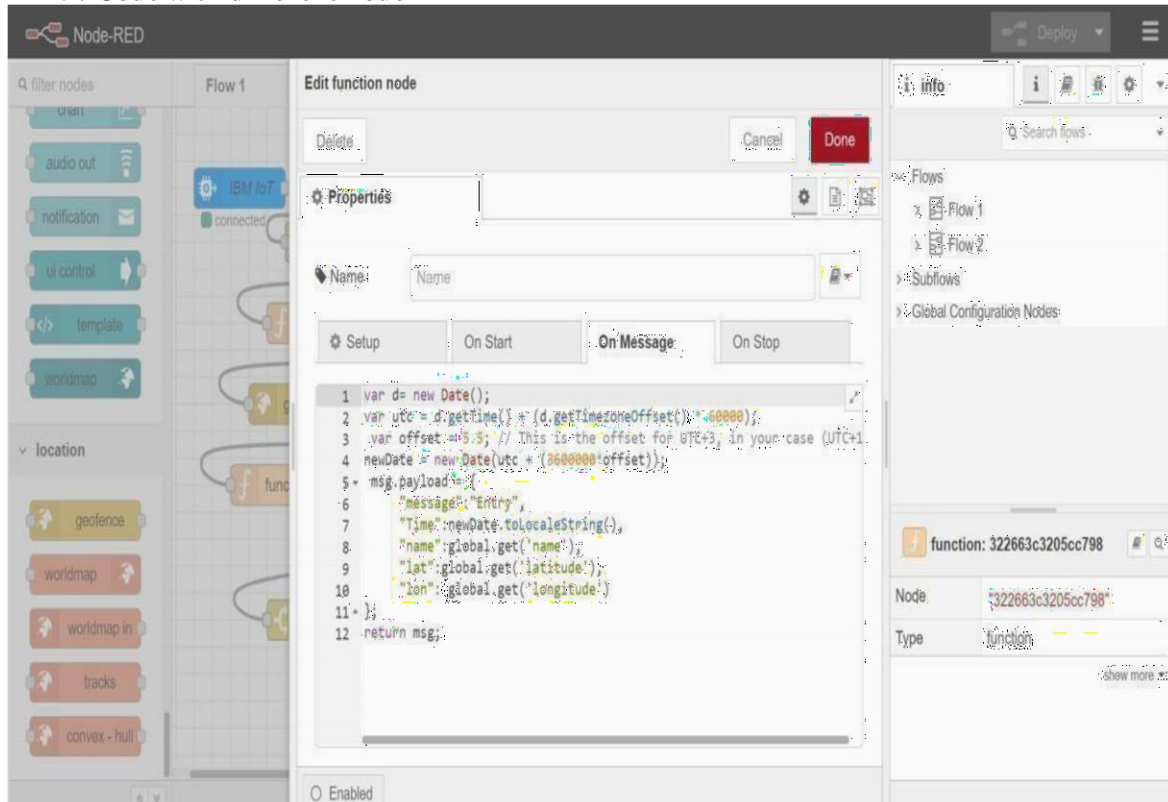
The screenshot shows the Node-RED web interface with the same flow as before. The 'function' node is now connected to a 'switch' node. The 'Edit switch node' dialog is open, showing the following configuration:

- Property: `msg.payload`
- Rule 1: `is false` → 1
- Rule 2: `is true` → 2
- Options: `checking all rules` (selected), `recreate message sequences` (unchecked)

The 'info' sidebar on the right shows the node's details: Node ID '16b63596382b4cc6' and Type 'switch'.



## 9: Code with different node

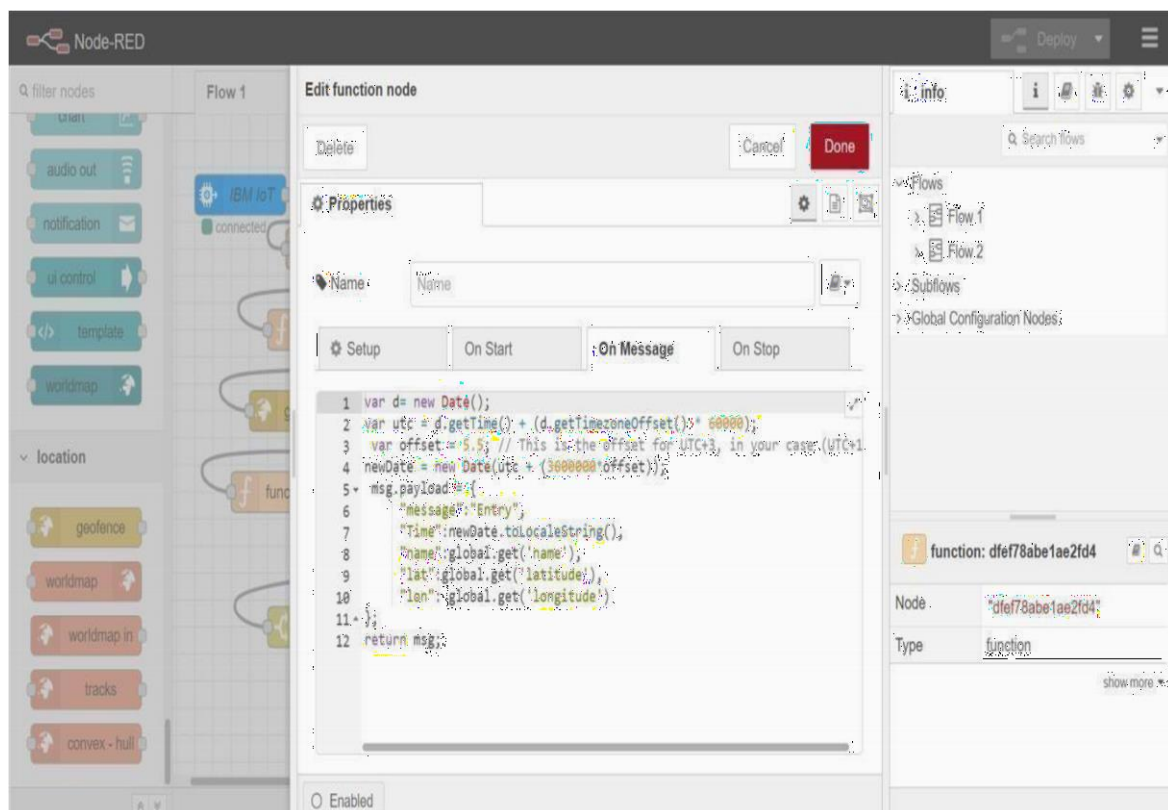


The screenshot shows the Node-RED web interface. On the left, a sidebar contains various nodes categorized by type. The main workspace displays a flow with a function node. The 'Edit function node' dialog is open, showing the following JavaScript code:

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

The right sidebar shows the 'info' tab, displaying the node's ID (322663c3205cc798) and type (function).

## Step 10: code with different node



This screenshot is identical to the previous one, showing the same JavaScript code in the 'Edit function node' dialog. The only difference is the node ID displayed in the right sidebar, which is now dfe78abe1ae2fd4.

## Step 11: Code with different node

Node-RED interface showing the 'Edit function node' dialog. The code in the function node is as follows:

```
1 var d = new Date();
2 var utc = d.getTime() + (d.getTimezoneOffset() * 60000);
3 var offset = 5.5; // This is the offset for UTC+3, in your case: (UTC+1
4 newDate = new Date(utc + (360000 * offset));
5 msg.payload = {
6   'message': 'Entry',
7   'time': newDate.toISOString(),
8   'name': global.get('name'),
9   'lat': global.get('latitude'),
10  'lon': global.get('longitude')
11 };
12 return msg;
```

The right sidebar shows the 'Info' panel for the function node with ID 36df960dbd4f874.

## Step 12: Http request node->properties

Node-RED interface showing the 'Edit http request node' dialog. The properties are:

- Method: GET
- URL: <https://www.fast2sms.com/dev/wallet?authenizat>
- Payload: ignore
- ☐ Enable secure (SSL/TLS) connection
- ☒ Use authentication
- ☐ Enable connection keep-alive
- ☒ Use proxy
- ☐ Only send non-2xx responses to Catch node
- Return: a UTF-8 string

The right sidebar shows the 'Info' panel for the http request node with ID a43ddb0b4716e38d.

### Step 13: Notification node

The screenshot shows the Node-RED web interface. On the left, a palette of nodes is visible, including 'notification'. The main workspace shows a flow with several nodes: 'IBM IoT' (connected), 'function', 'geofence', 'function', 'switch', and 'function'. The 'Edit notification node' dialog is open in the center. It has tabs for 'Delete', 'Properties', and 'Info'. The 'Properties' tab is active, showing options for '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 Terminal popup', 'Class' (msg.className), 'Topic' (msg.topic), and 'Name' (show dialogue). The 'Info' tab on the right shows the node's details: 'Node' (388bcb2648d1348b) and 'Type' (ui\_toast).

### Step 14: Cloudant node

The screenshot shows the Node-RED web interface. On the left, a palette of nodes is visible, including 'cloudant out'. The main workspace shows a flow with several nodes: 'IBM IoT' (connected), 'function', 'geofence', 'function', 'switch', and 'function'. The 'Edit cloudant out node' dialog is open in the center. It has tabs for 'Delete', 'Properties', and 'Info'. The 'Properties' tab is active, showing options for 'Service' (Cloudant-pn-99850), 'Database' (noderedapqzh28221108), 'Operation' (insert), 'Only store msg.payload object?' (unchecked), and 'Name' (child). The 'Info' tab on the right shows the node's details: 'Node' (7f199a311bbfac36) and 'Type' (cloudant out).