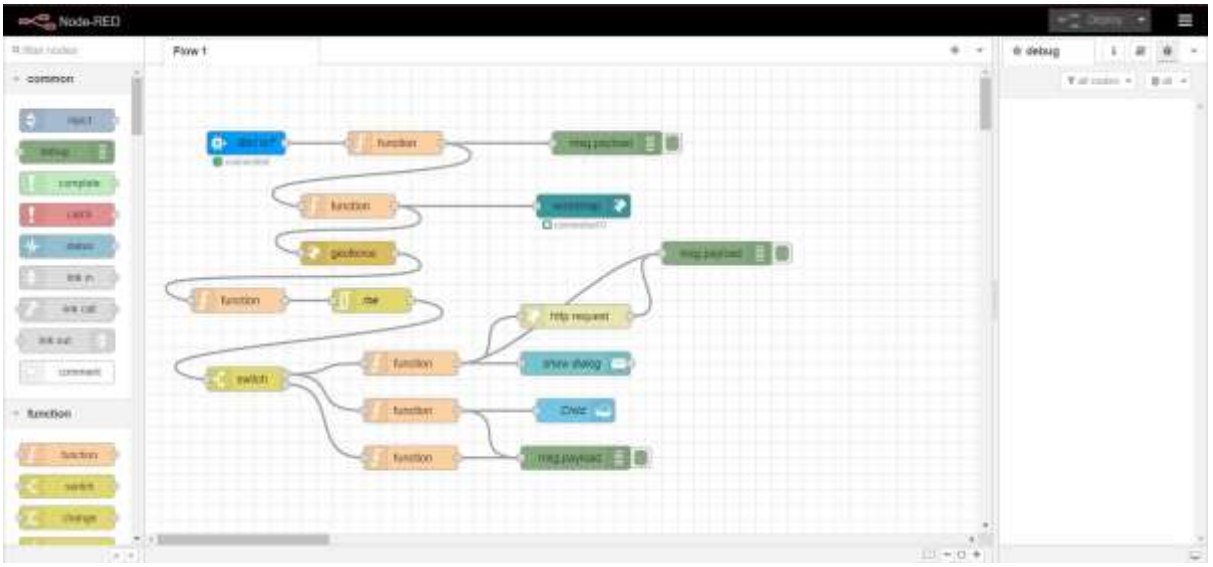
Project Development – Delivery plan sprint-3

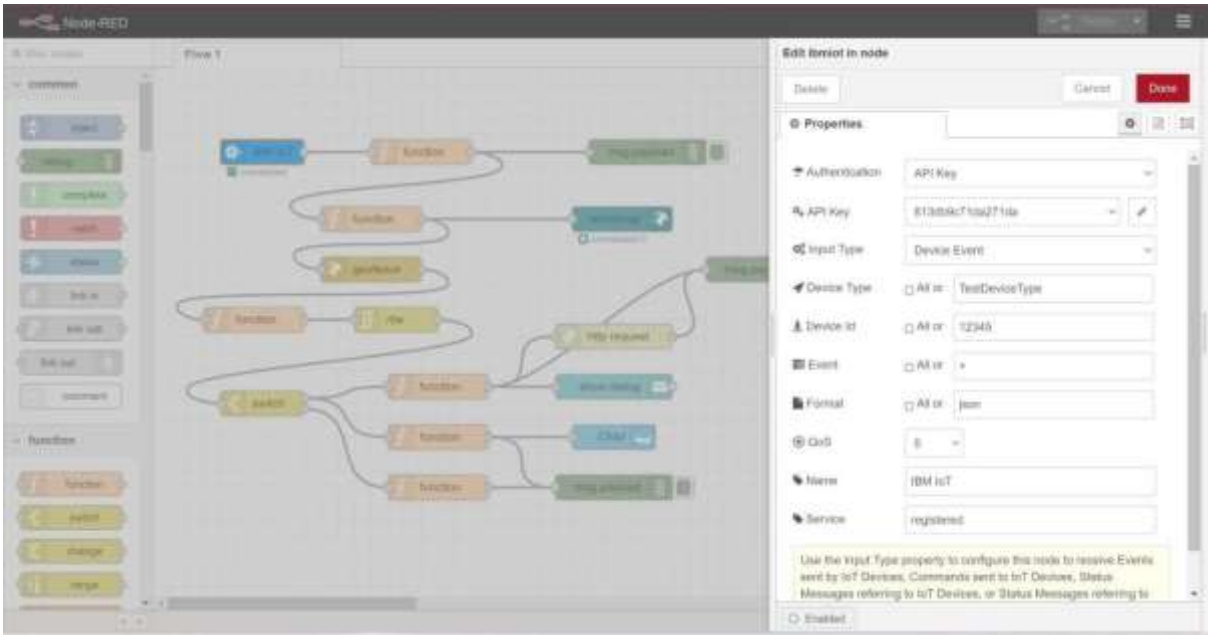
Date :	**15th Nov 2022**
Project topic :	**IoT Based Safety Gadget for Child Safety Monitoring & Notification**
Team ID :	**PNT2022TMID40778**

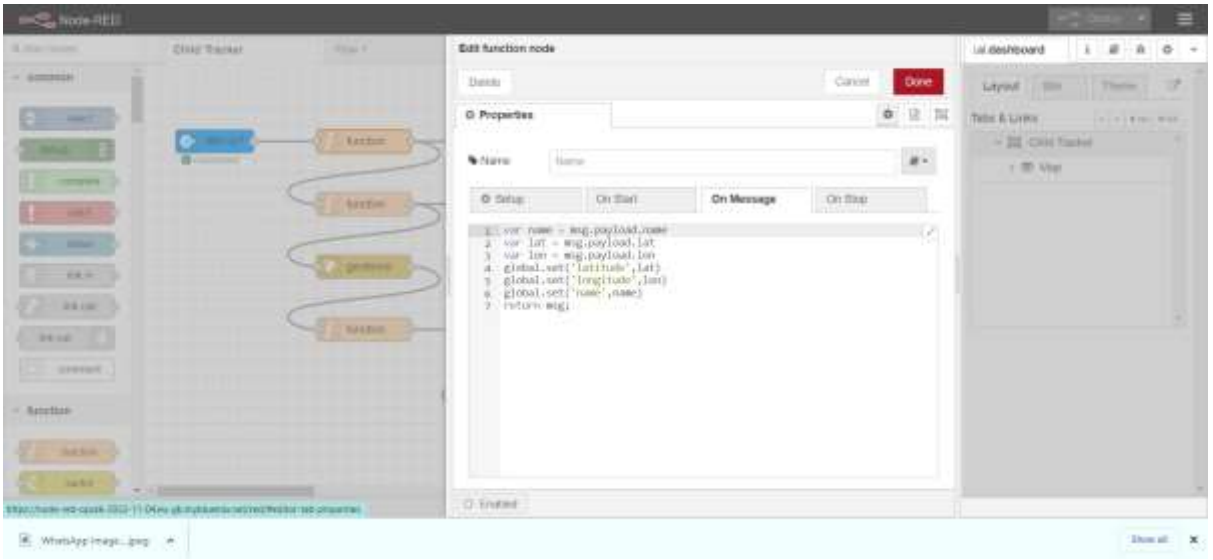
Creating Node-Red service and connecting with IBM cloud

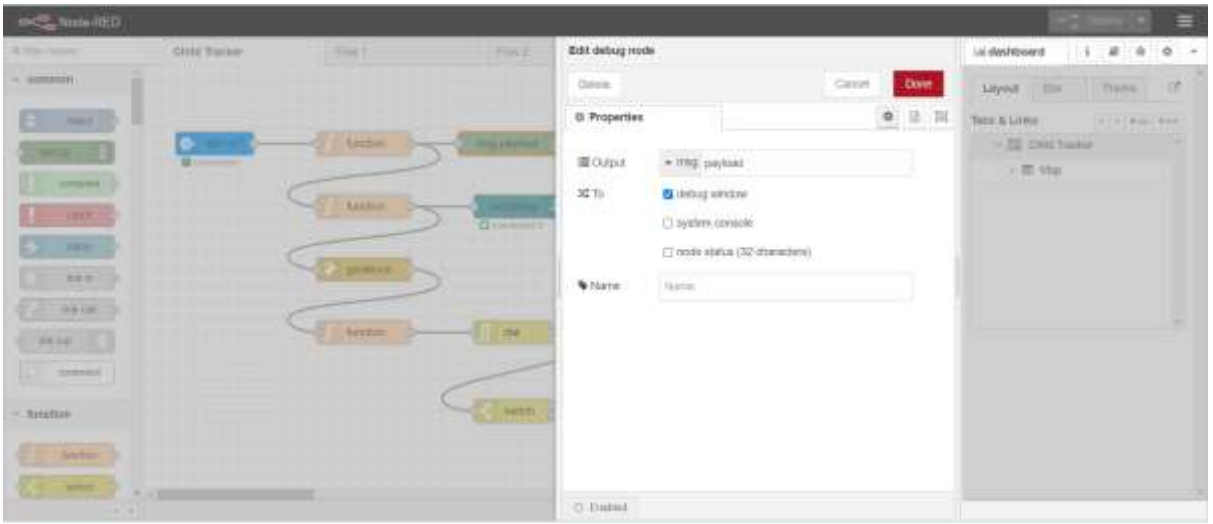
Creating Node-Red service:

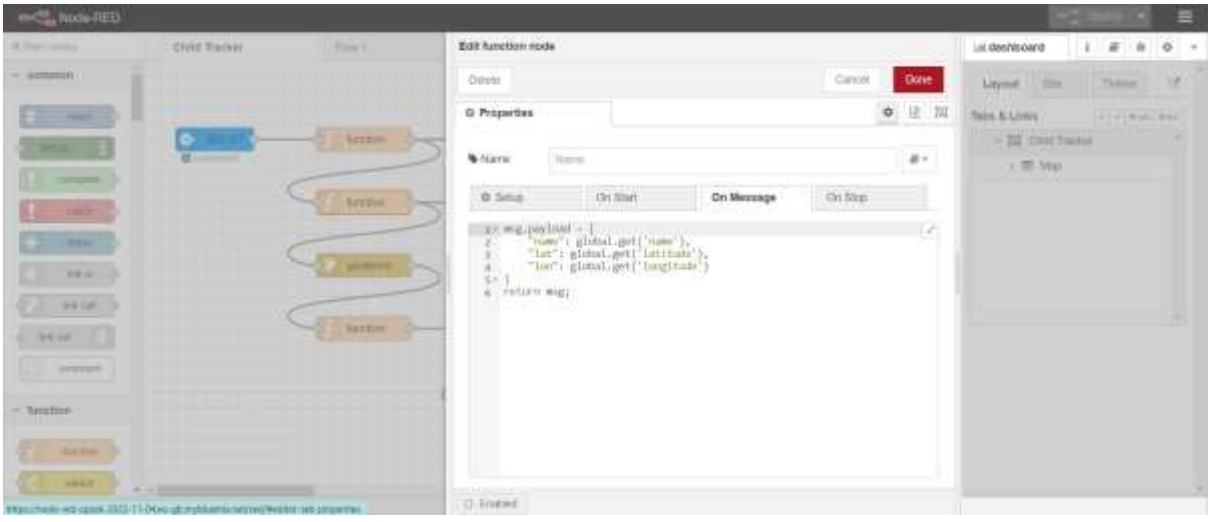


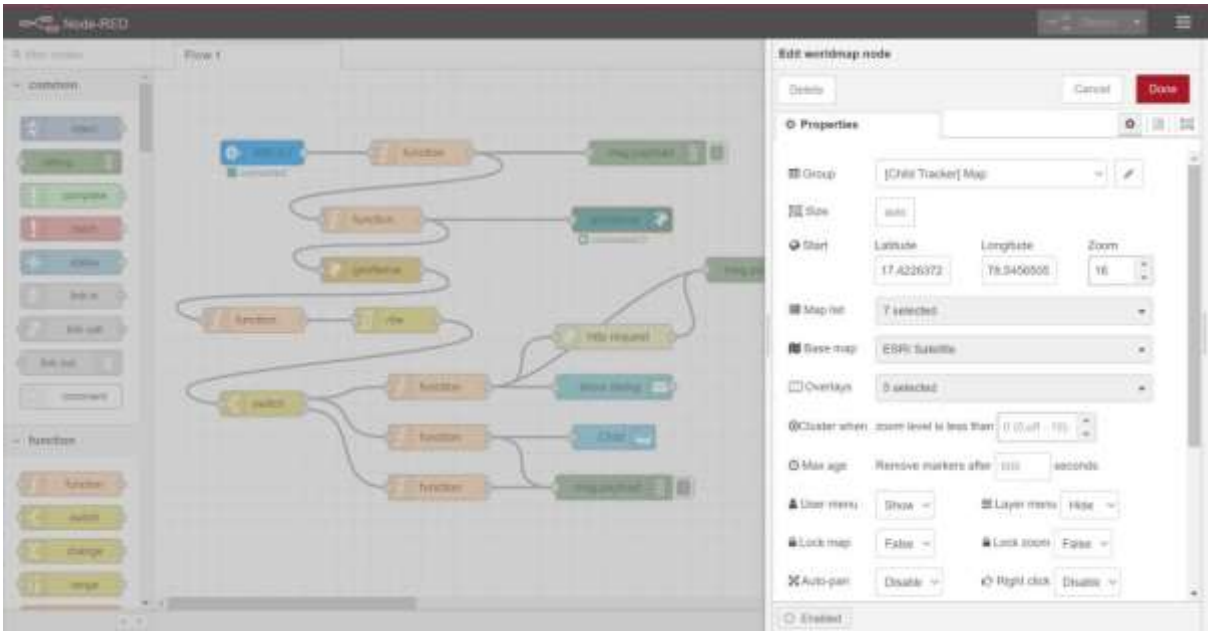
Codes in each Node:

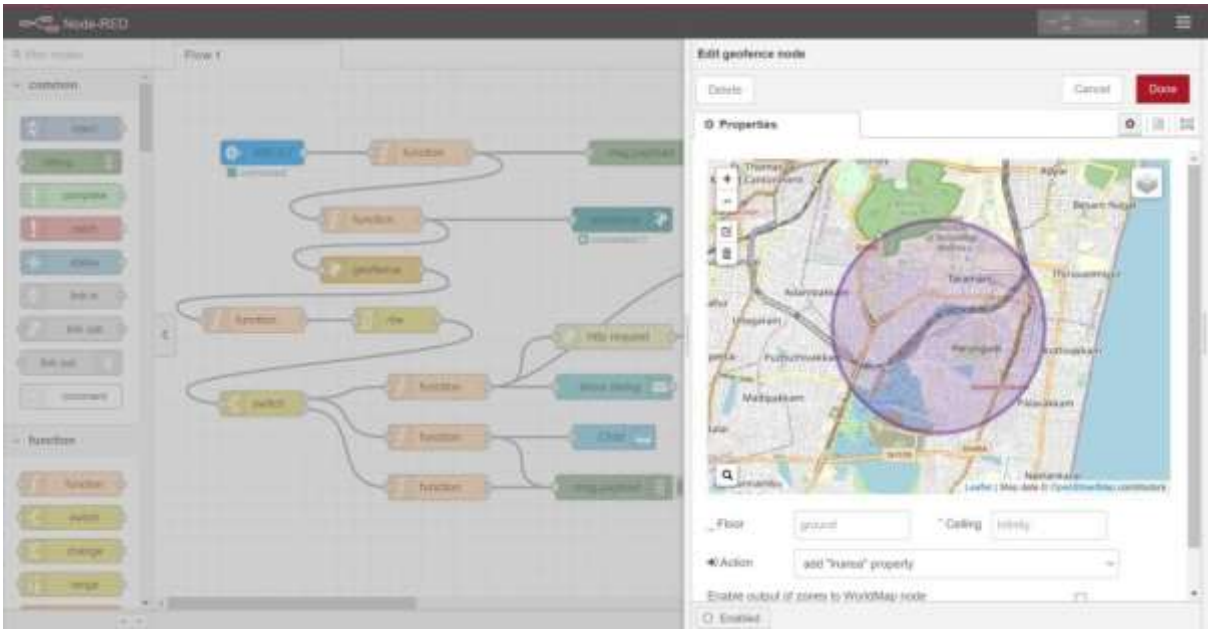


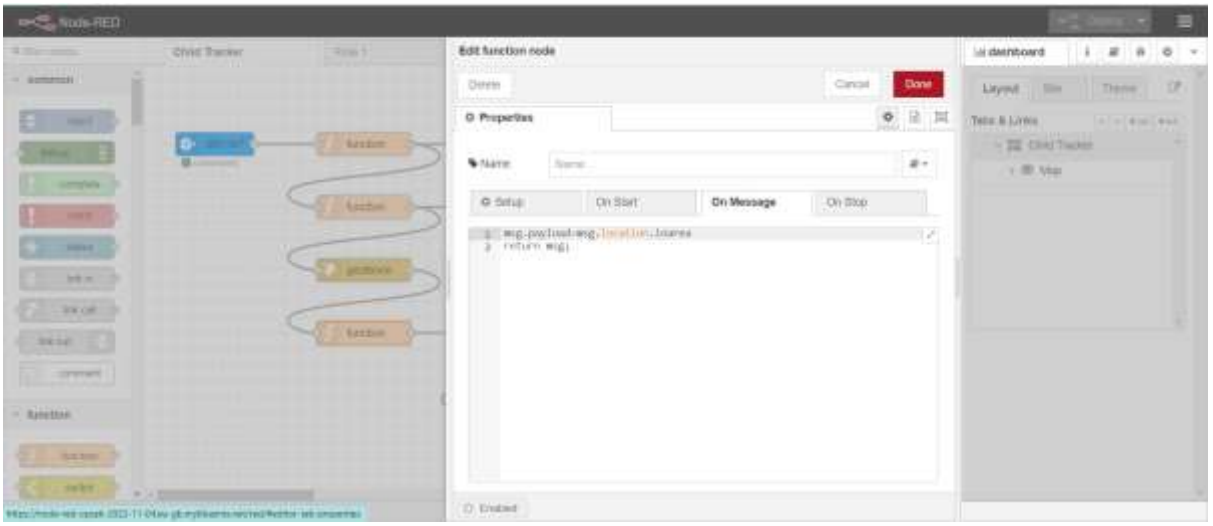

Node-RED
Child Tracker
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
var name = msg.payload.name
var lat = msg.payload.lat
var lon = msg.payload.lon
global.set('latitude',Lat)
global.set('longitude',lon)
global.set('name',name)
return msg;
Enabled
ui dashboard
Layout
Tabs & Links
Child Tracker
Map

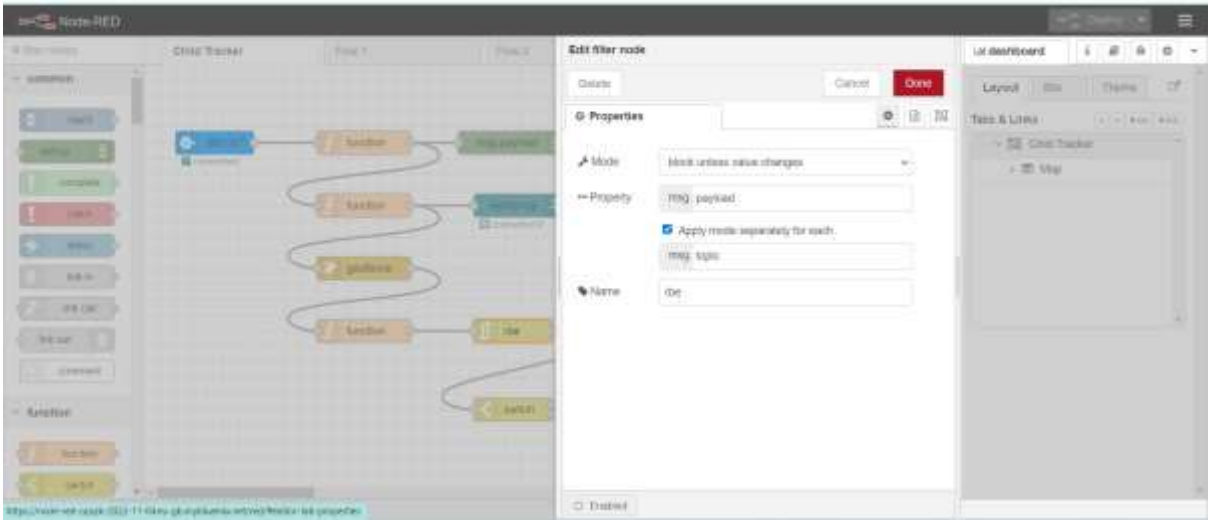

Node-RED
Child Tracker
Edit debug node
Delete
Cancel
Done
Properties
Output
msg. payload
To
debug window
system console
node status (32 characters)
Name
Enabled
ui dashboard
Layout
Tabs & Links
Child Tracker
Map

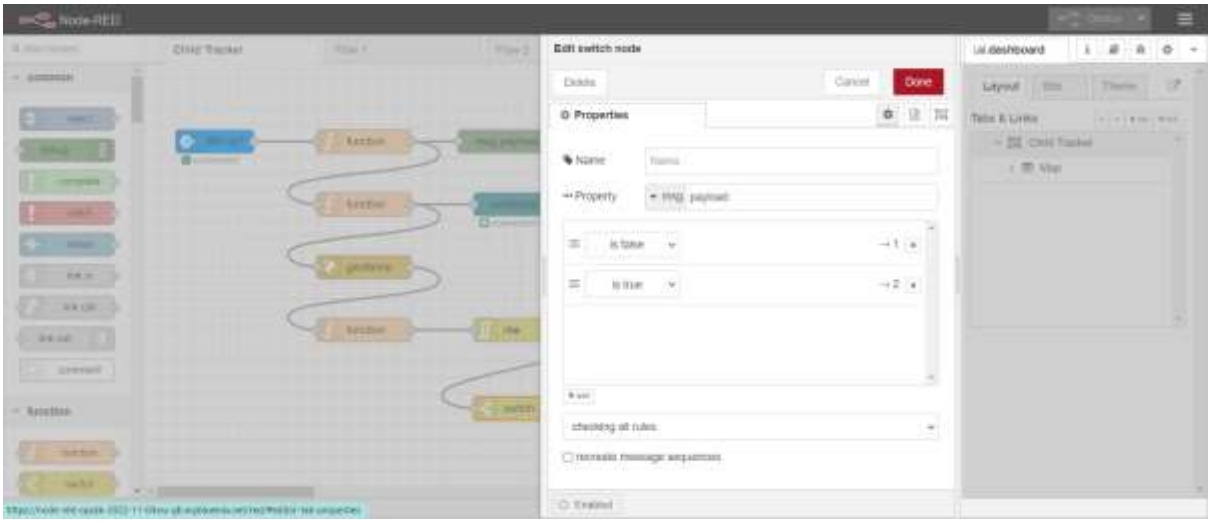

Node-RED
Child Tracker
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
msg.payload = {
"name": global.get('name'),
"lat": global.get('latitude'),
"lon": global.get('longitude')
}
return msg;
Enabled
ui dashboard
Layout
Tabs & Links
Child Tracker
Map

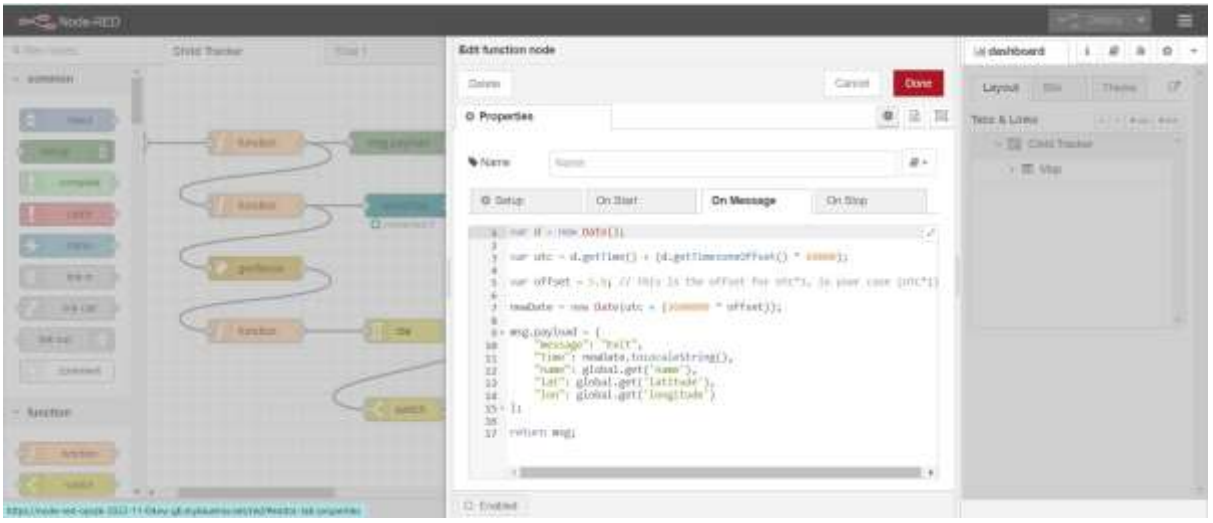

Node-RED
Flow 1
Edit worldmap node
Delete
Cancel
Done
Properties
Group
[Child Tracker] Map
Size
Start
Latitude
Longitude
Zoom
Map list
7 selected
Base map
ESRI Satellite
Overlays
3 selected
Cluster when
Max age
Remove markers after
seconds
User menu
Show
Layer menu
Hide
Lock map
False
Lock zoom
False
Auto-pan
Disable
Right click
Disable
Enabled

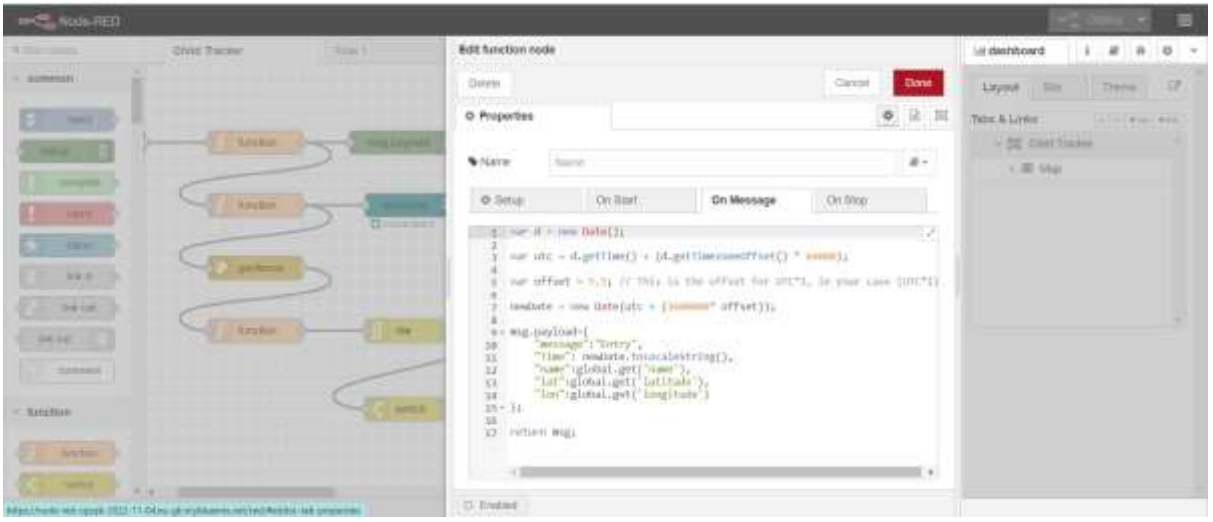

Node-RED
Flow 1
Edit geofence node
Delete
Cancel
Done
Properties
Floor
Ceiling
Action
add "inarea" property
Enable output of zones to WorldMap node
Enabled


Node-RED
Child Tracker
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
msg.payload=msg.location.inarea
return msg;
Enabled
dashboard
Layout
Site
Theme
Tabs & Links
Child Tracker
Map

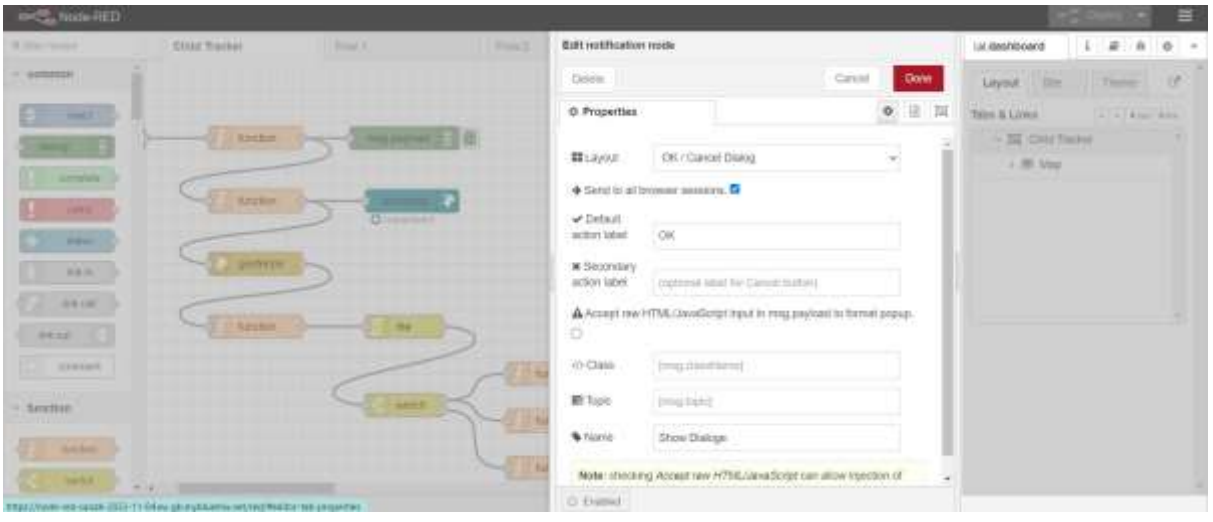

Node-RED
Edit filter node
Delete
Cancel
Done
Properties
Mode
Block unless value changes
Property
msg. payload
Apply mode separately for each
msg. topic
Name
dashboard
Layout
Theme
Tabs & Links
Child Tracker
Map
Enabled

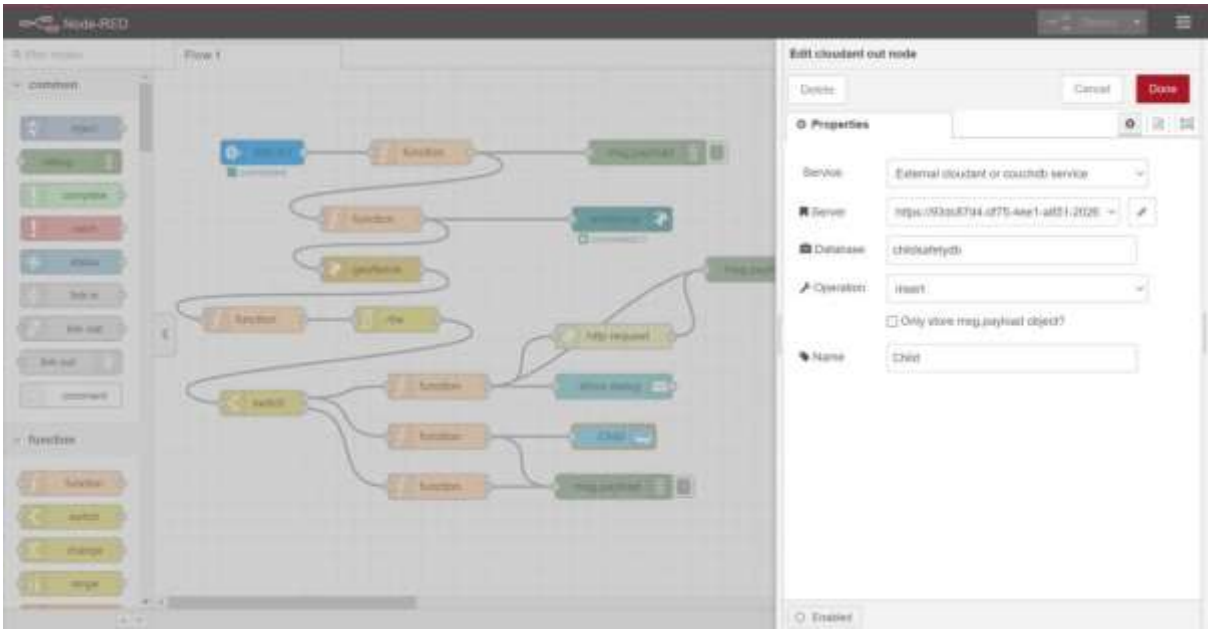

Node-RED
Edit switch node
Delete
Cancel
Done
Properties
Name
Property
msg. payload
is false
is true
checking all rules
repeats message sequences
dashboard
Layout
Theme
Tabs & Links
Child Tracker
Map
Enabled


Node-RED
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
var d = new Date();
var utc = d.getTime() + (d.getTimezoneOffset() * 60000);
var offset = 5.5; // this is the offset for UTC, in your case (UTC+1)
var newDate = new Date(utc + (3600000 * offset));
msg.payload = {
"message": "Exit",
"Time": newDate.toLocaleString(),
"name": global.get('name'),
"lat": global.get('latitude'),
"lon": global.get('longitude')
};
return msg;
dashboard
Layout
Theme
Tabs & Links
Child Tracker
Map
Enabled

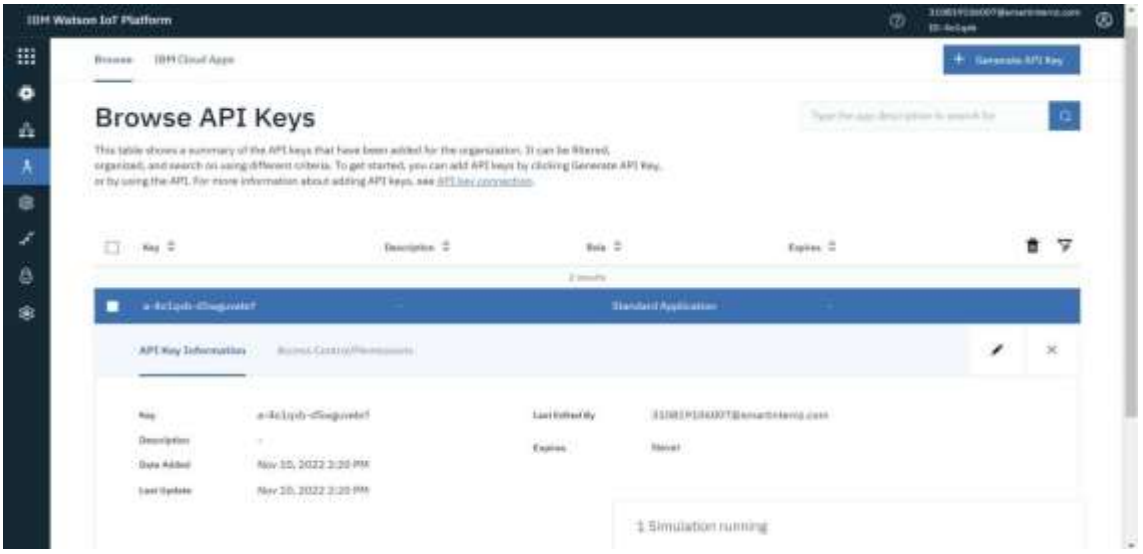

Node-RED
Edit function node
Done
Properties
Name
Setup
On Start
On Message
On Stop
dashboard

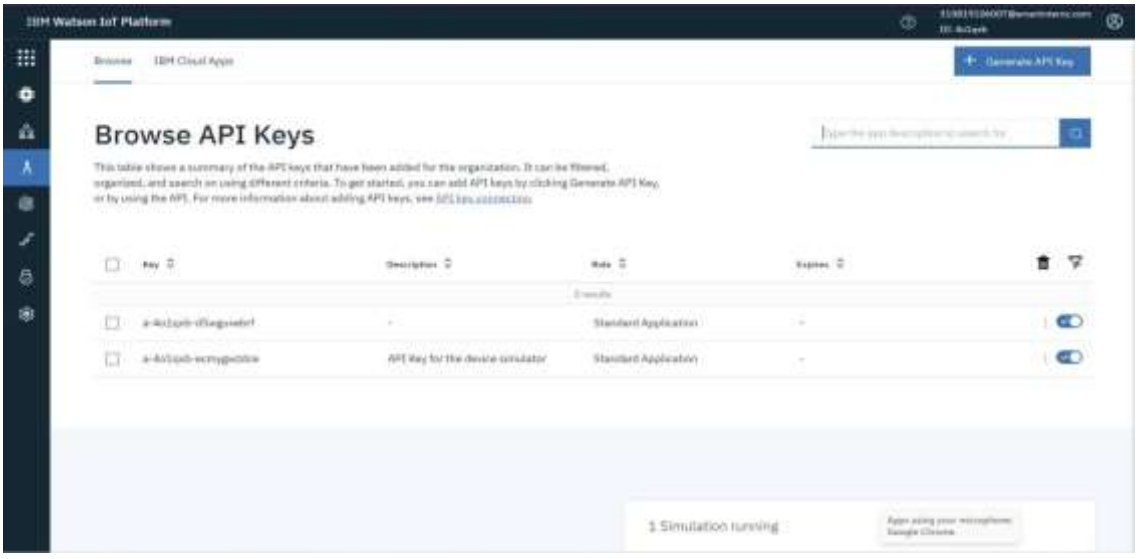

Node-RED
Edit http request node
Done
Properties
Method
GET
URL
Payload
ignore
Return
a UTF-8 string
Name


Node-RED
Edit notification node
Done
Properties
Layout
OK / Cancel Dialog
Default action label
OK
Secondary action label
Topic
Name
Show Dialogs
dashboard

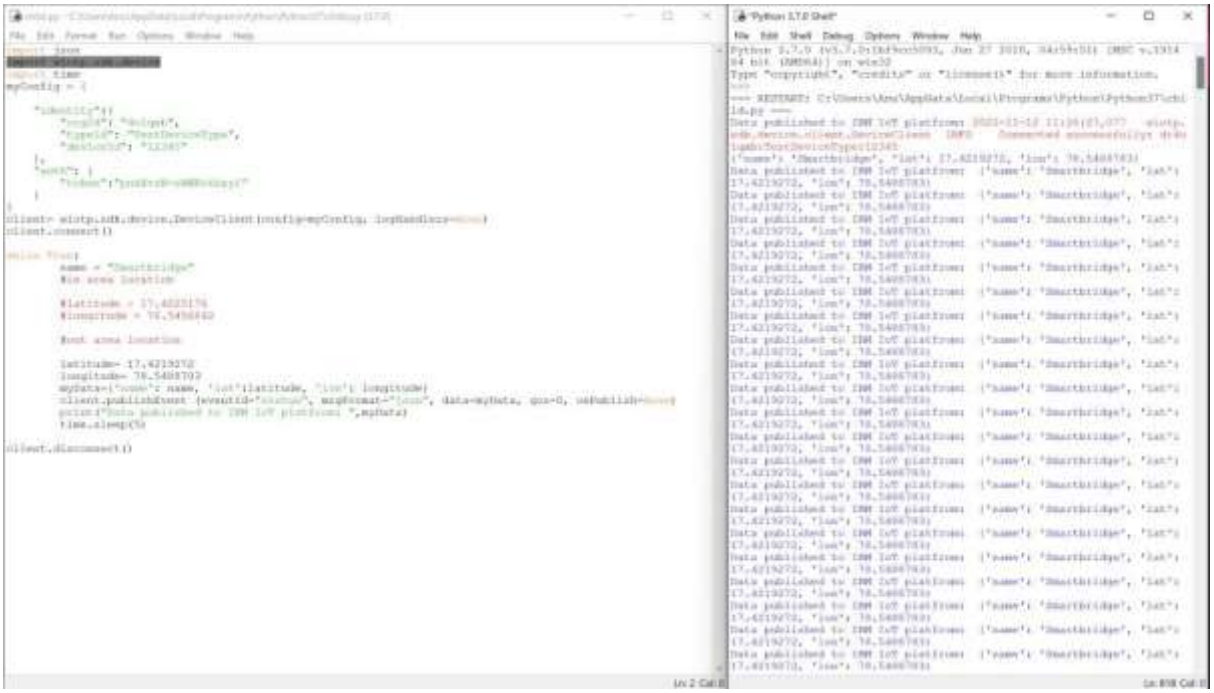


Connecting with IBM Cloud: Using IBM IOT node through the APIkey :


IBM Watson IoT Platform
Browse
IBM Cloud Apps
Generate API Key
Browse API Keys
This table shows a summary of the API keys that have been added for the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add API keys by clicking Generate API Key, or by using the API. For more information about adding API keys, see API key connection.
Key
Description
Role
Expires
Standard Application
API Key Information
Key
Description
Date Added
Nov 10, 2022 3:20 PM
Last Update
Nov 10, 2022 3:20 PM
Last Edited By
Expires
Never
1 Simulation running


IBM Watson IoT Platform
Browse
IBM Cloud Apps
Generate API Key
Browse API Keys
This table shows a summary of the API keys that have been added for the organization. It can be filtered, organized, and search on using different criteria. To get started, you can add API keys by clicking Generate API Key, or by using the API. For more information about adding API keys, see API key connection.
Key
Description
Role
Expires
Standard Application
API Key for the device simulator
Standard Application
1 Simulation running

Transferring values from Python Code:



Node-Red: