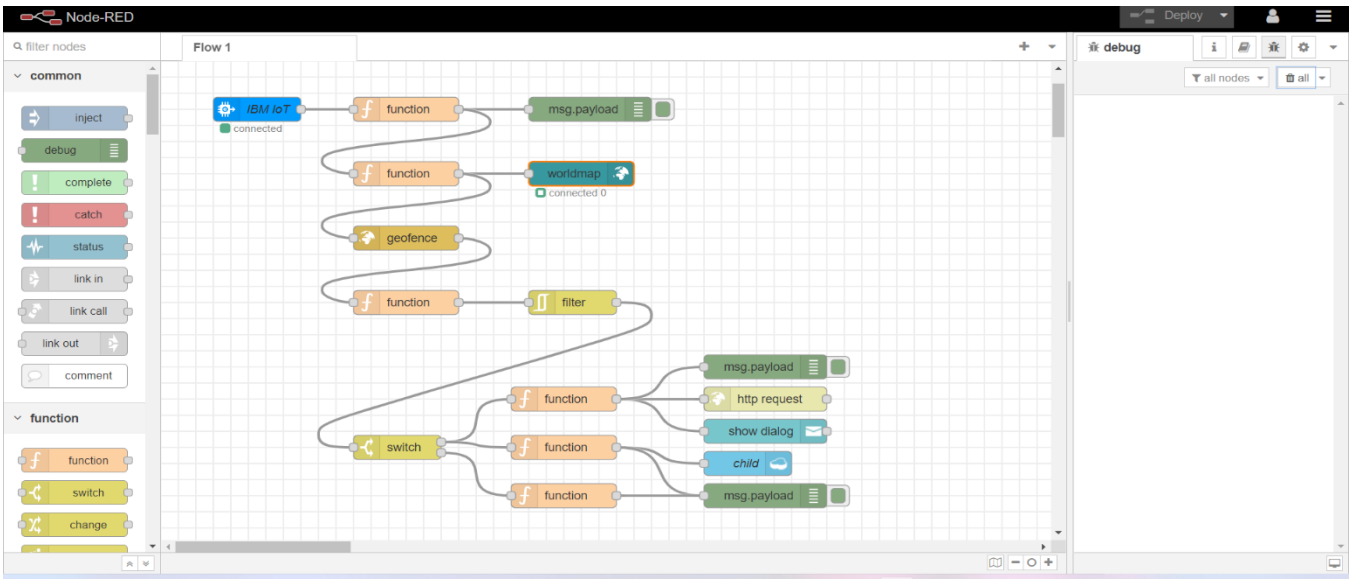
Project Development – Delivery plan sprint-3

IoT Based Safety Gadget for Child Safety Monitoring & Notification

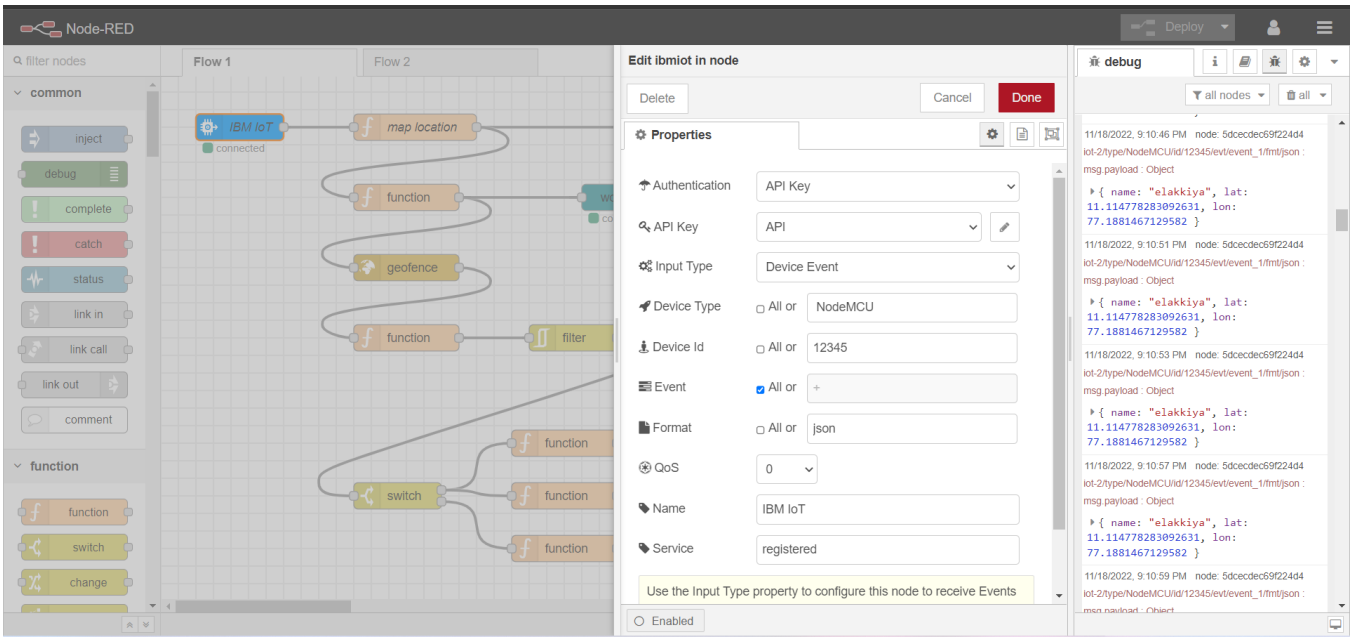
TEAM ID:PNT2022TMID42649

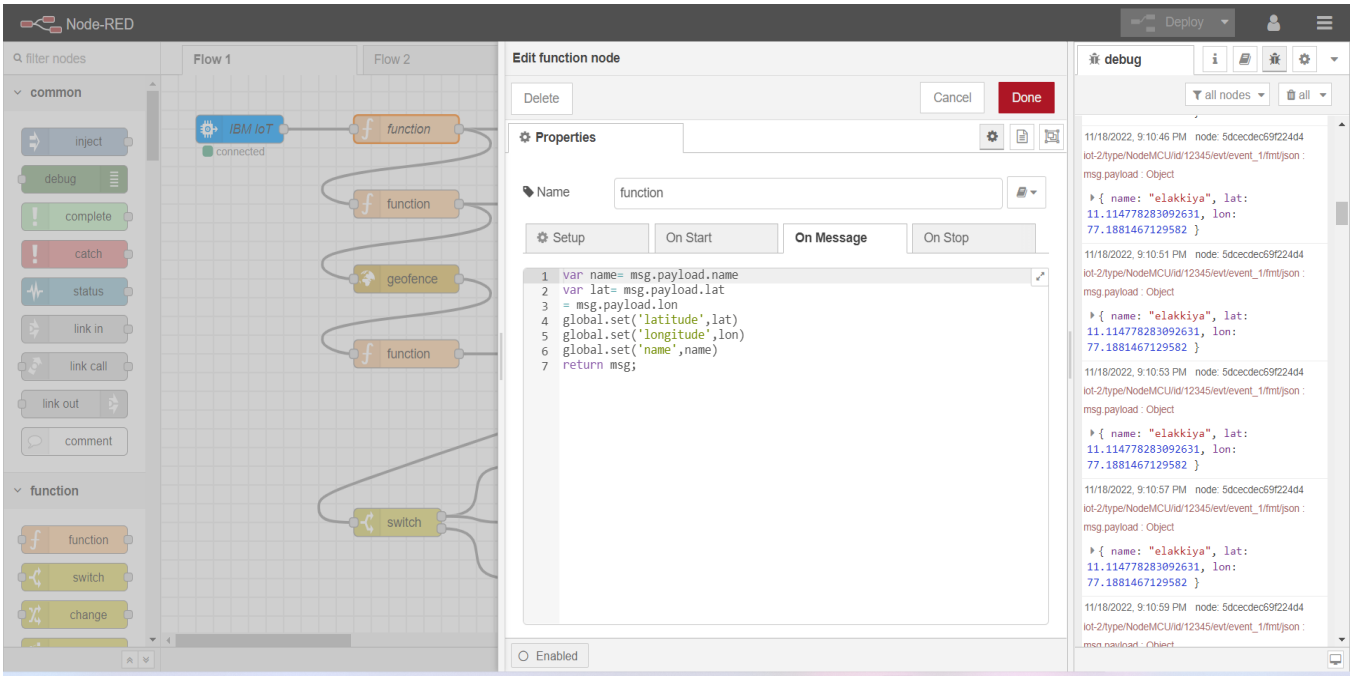
Creating Node-Red service and connecting with IBM cloud

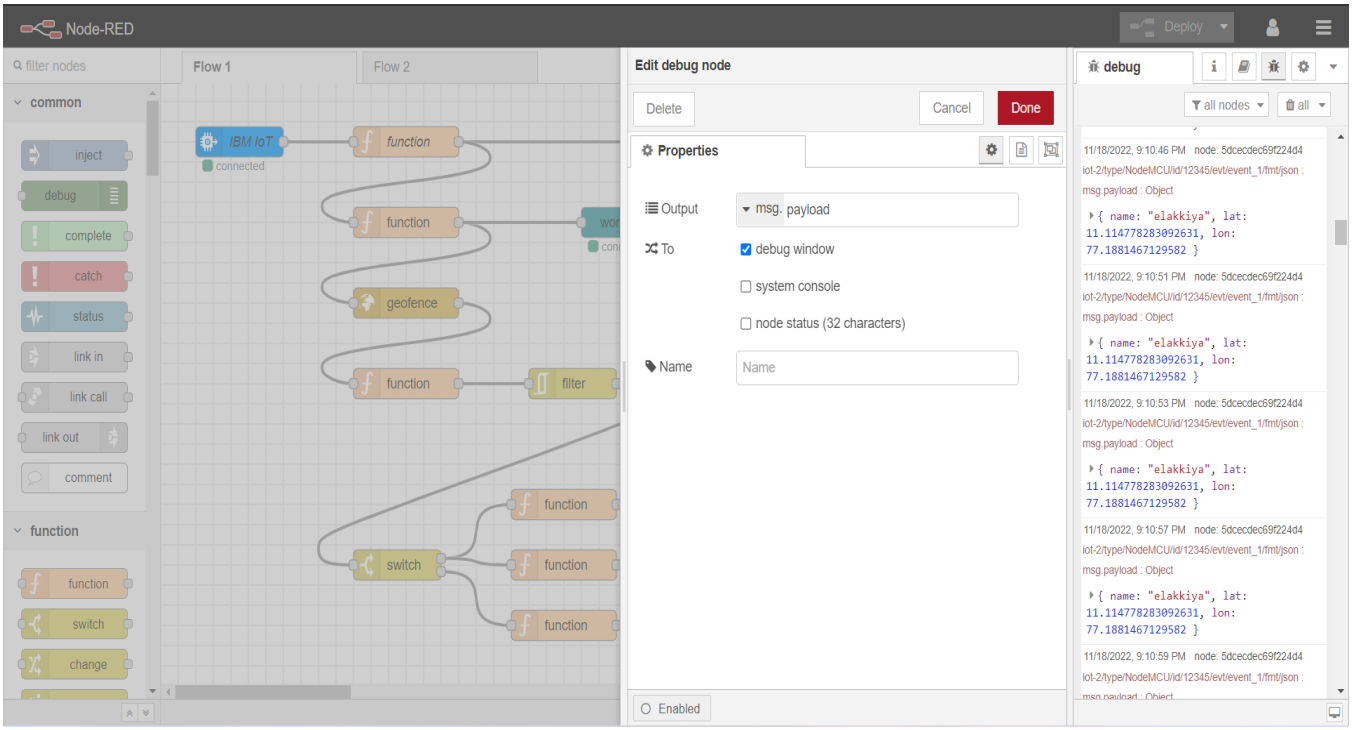
Creating Node-Red service:

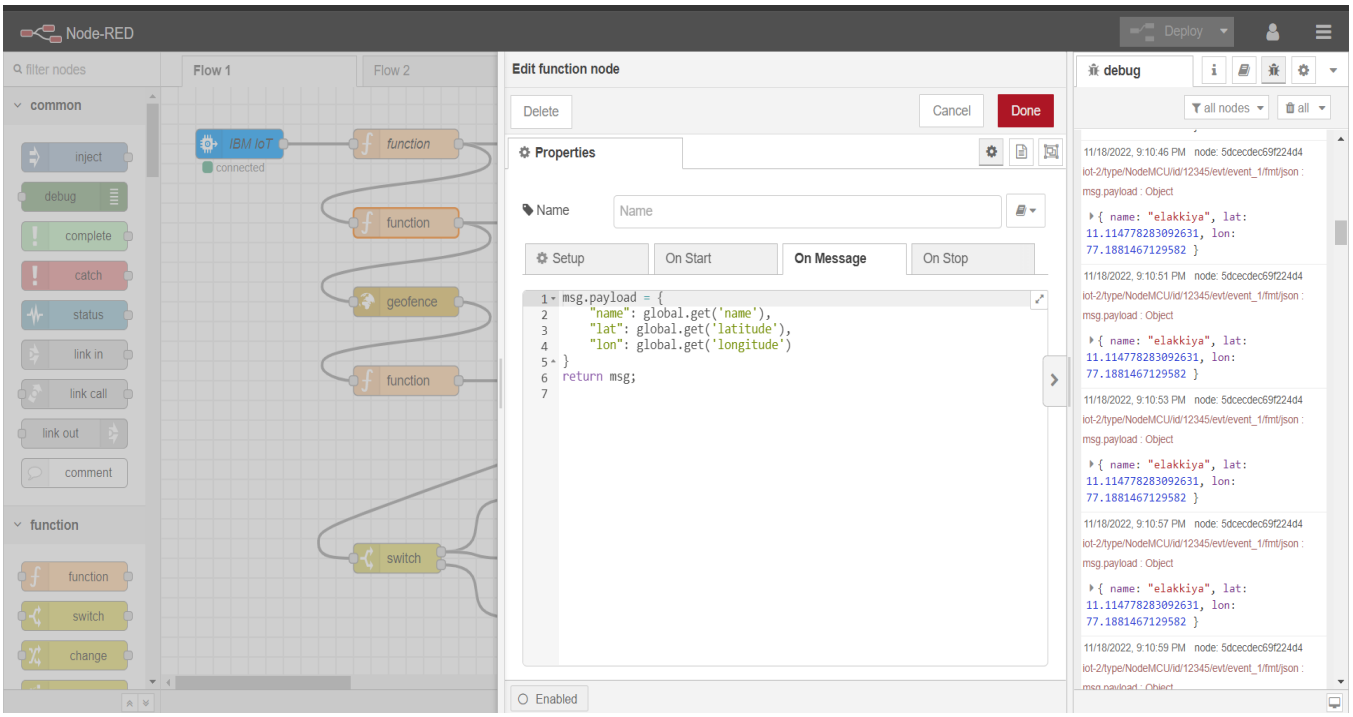


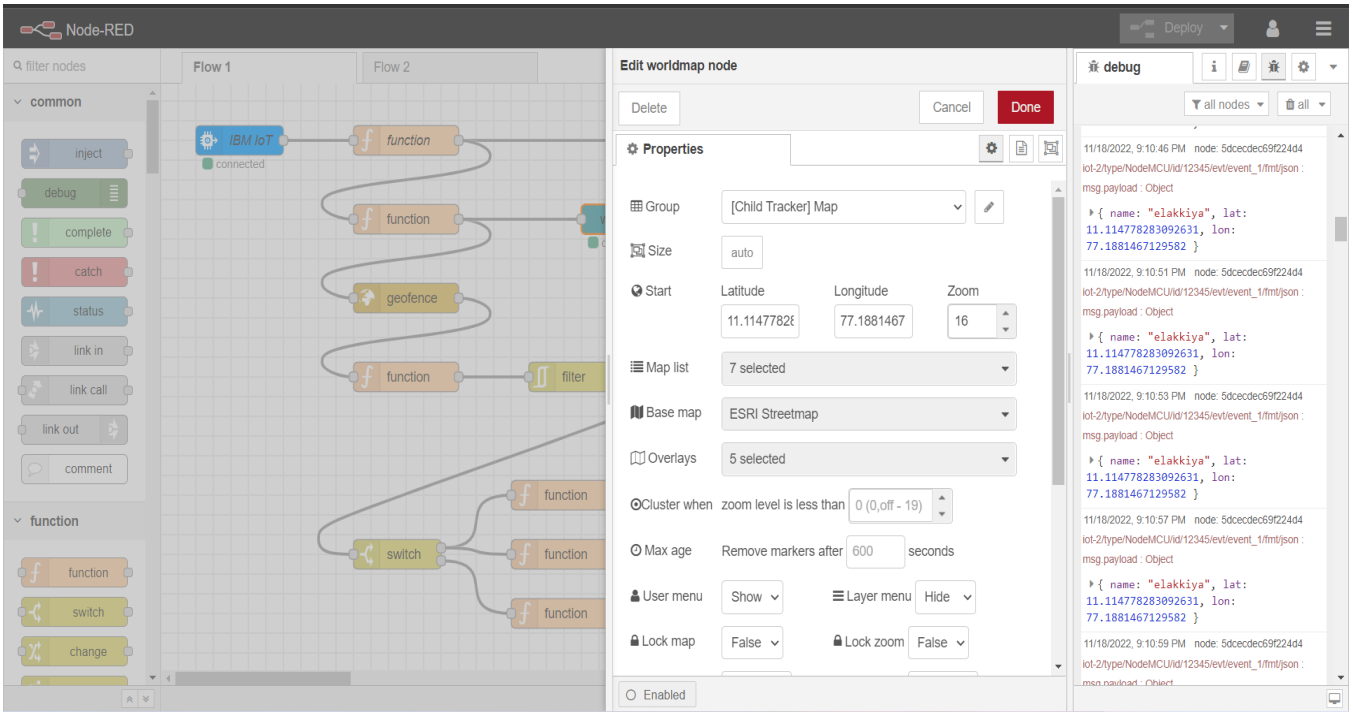
Codes in each Node:

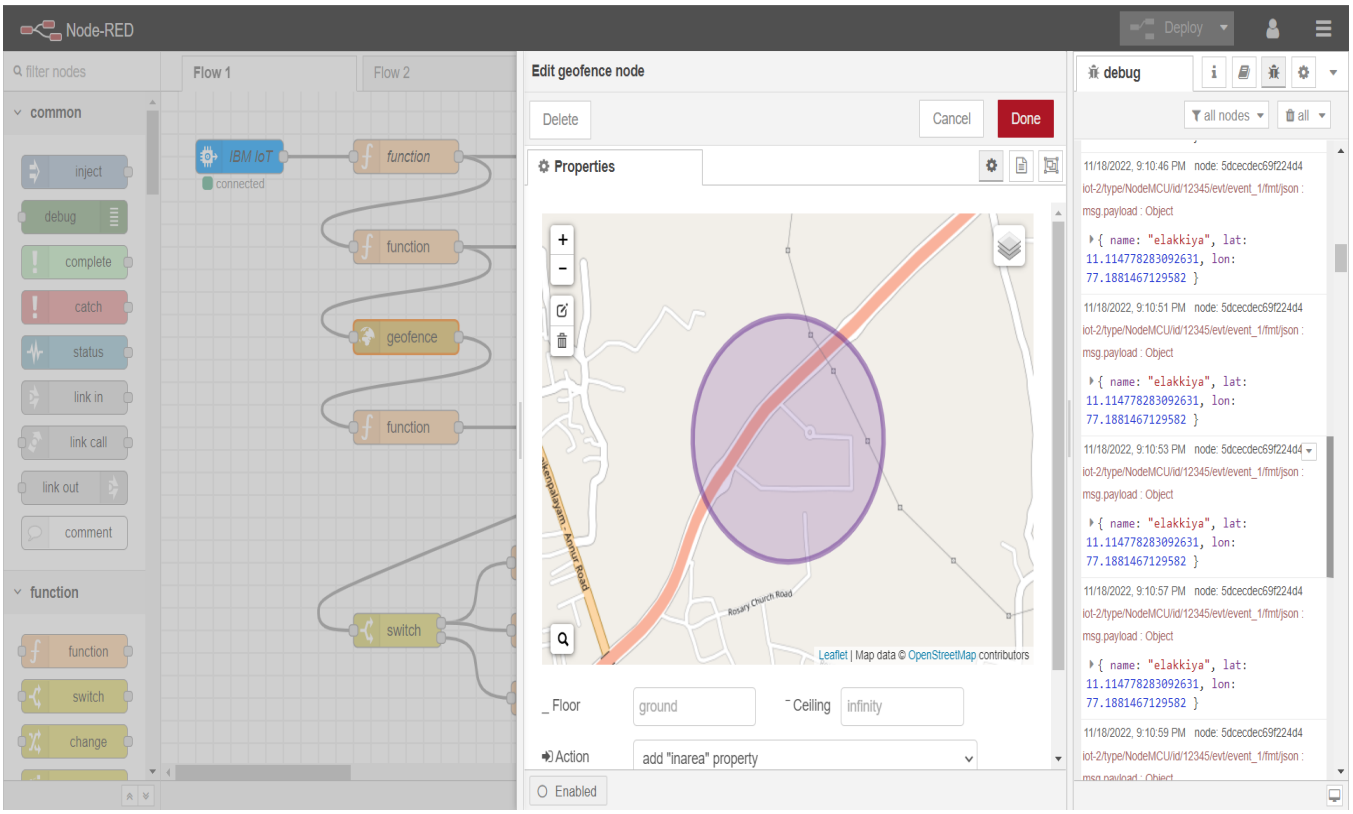


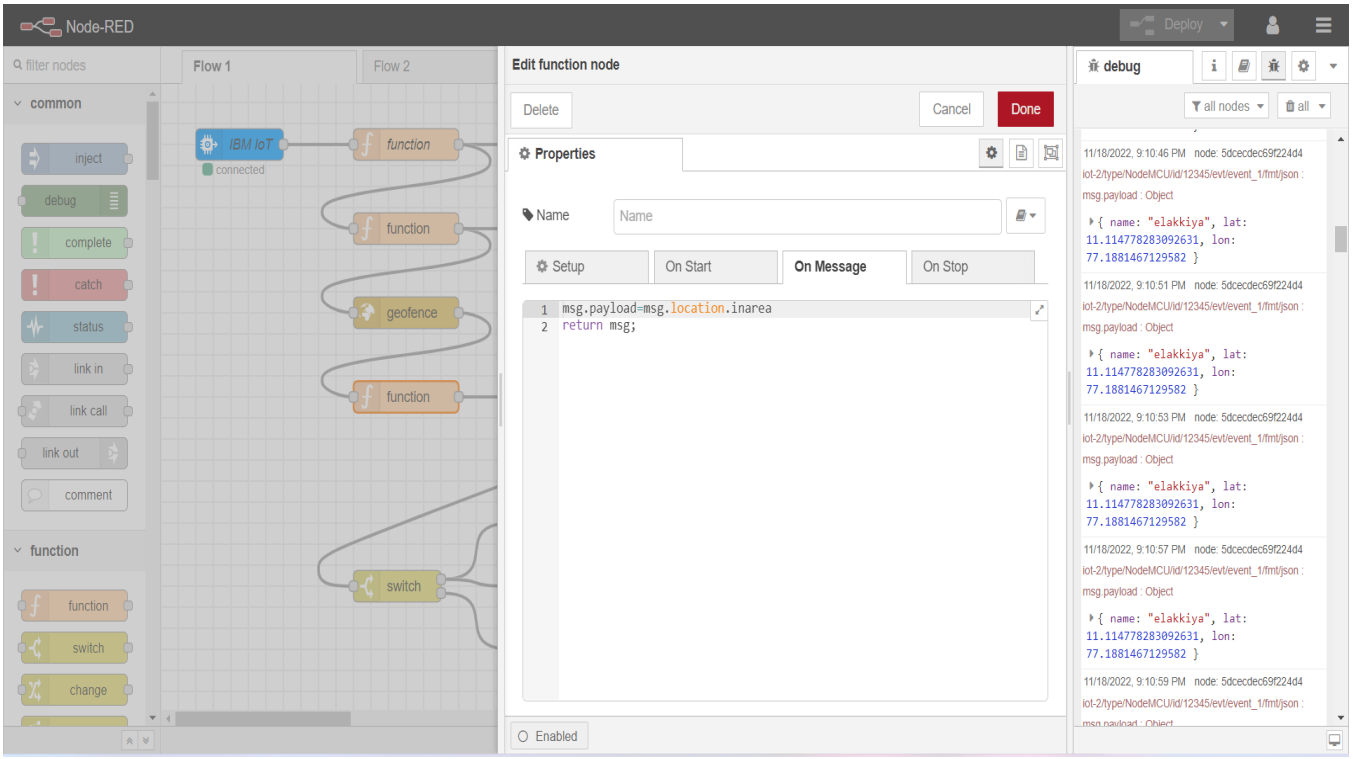

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
IBM IoT
connected
function
function
geofence
function
switch
Edit function node
Delete
Cancel
Done
Properties
Name
function
Setup
On Start
On Message
On Stop
1 var name= msg.payload.name
2 var lat= msg.payload.lat
3 = msg.payload.lon
4 global.set('latitude',lat)
5 global.set('longitude',lon)
6 global.set('name',name)
7 return msg;
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :

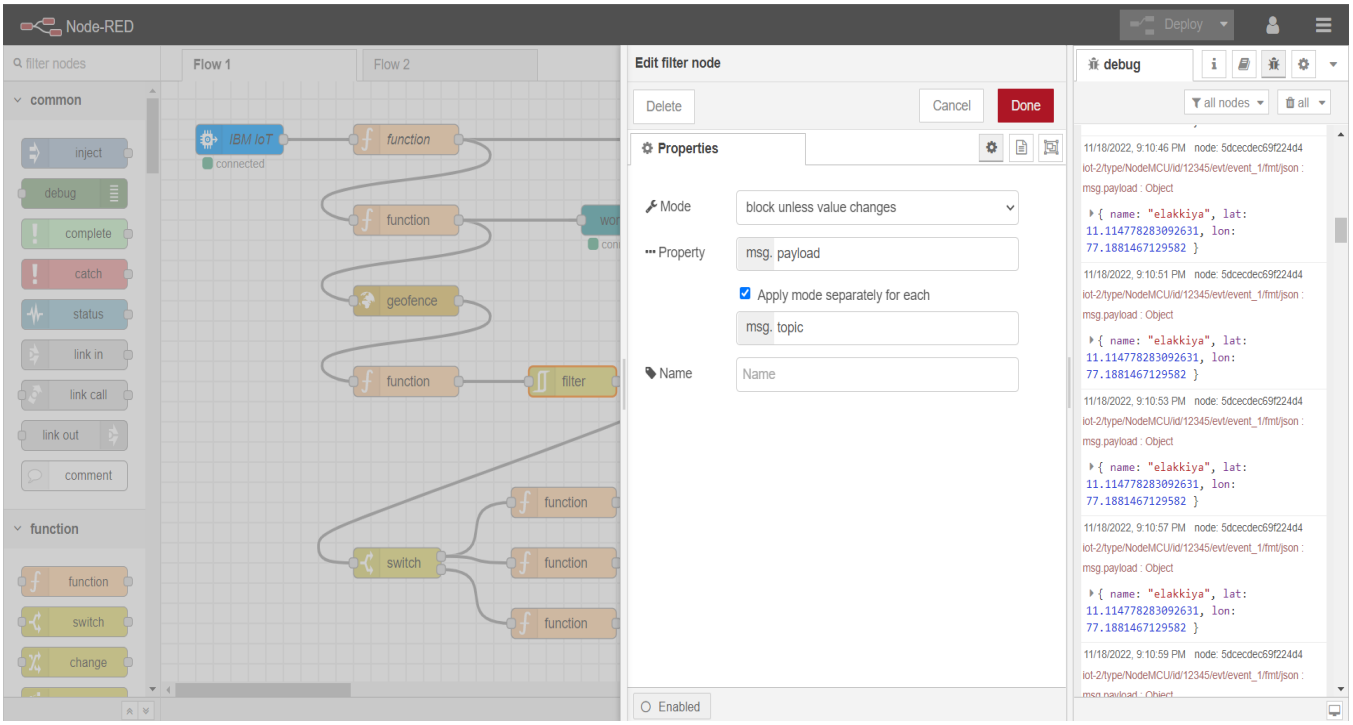

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
IBM IoT
connected
function
function
geofence
function
filter
function
switch
function
function
Edit debug node
Delete
Cancel
Done
Properties
Output
msg. payload
To
debug window
system console
node status (32 characters)
Name
Name
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :

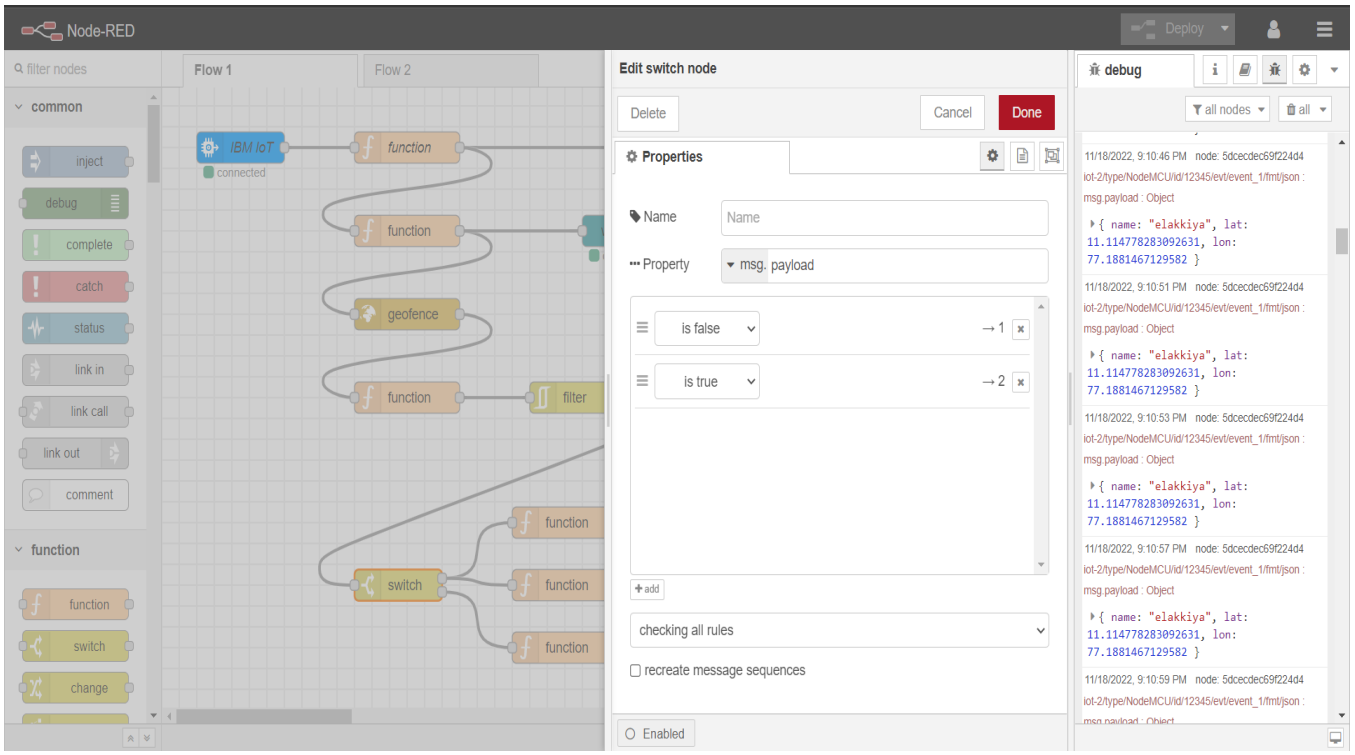

Node-RED
Deploy
Flow 1
Flow 2
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
msg.payload = {
"name": global.get('name'),
"lat": global.get('latitude'),
"lon": global.get('longitude')
}
return msg;
Enabled
debug
IBM IoT
connected
function
geofence
switch
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
switch
change

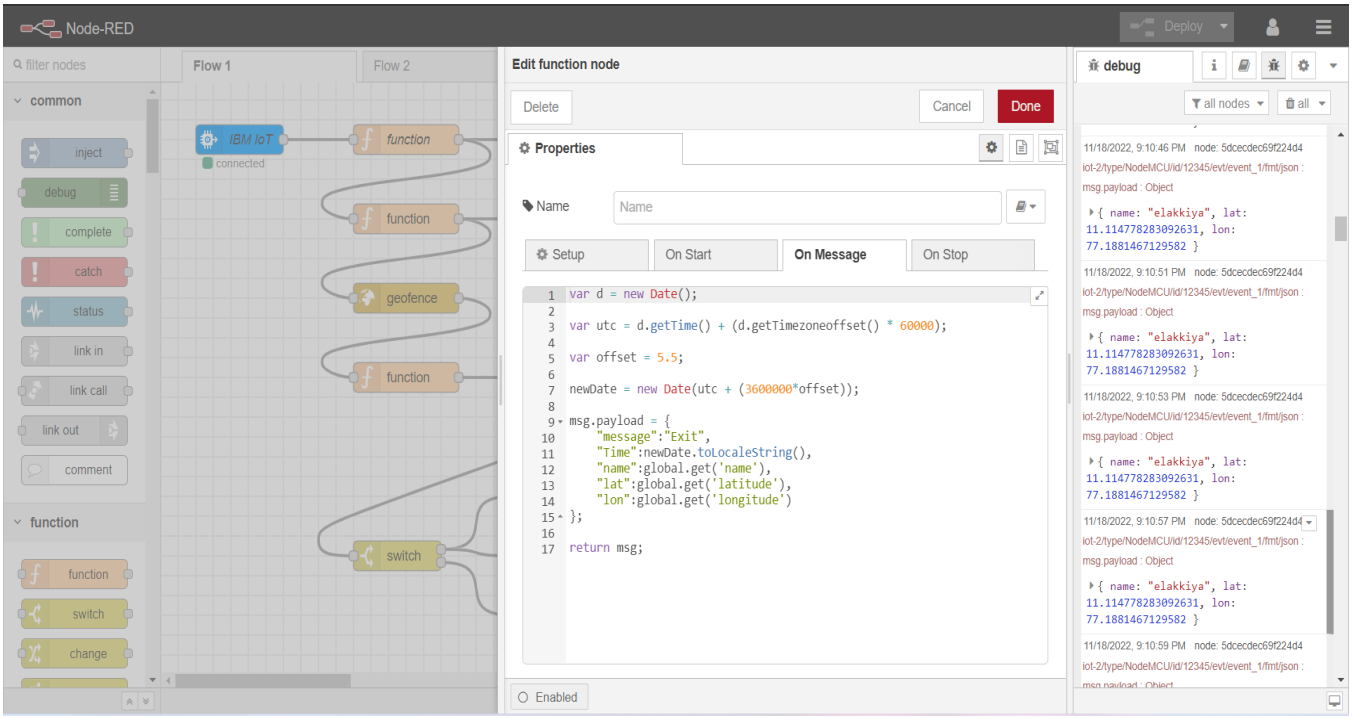

Node-RED
Deploy
Flow 1
Flow 2
Edit worldmap node
Delete
Cancel
Done
Properties
Group
[Child Tracker] Map
Size
auto
Start
Latitude
Longitude
Zoom
11.1147782
77.1881467
16
Map list
7 selected
Base map
ESRI Streetmap
Overlays
5 selected
Cluster when
zoom level is less than
0 (0,off - 19)
Max age
Remove markers after
600
seconds
User menu
Show
Layer menu
Hide
Lock map
False
Lock zoom
False
Enabled
debug
IBM IoT
connected
function
geofence
filter
switch
common
function

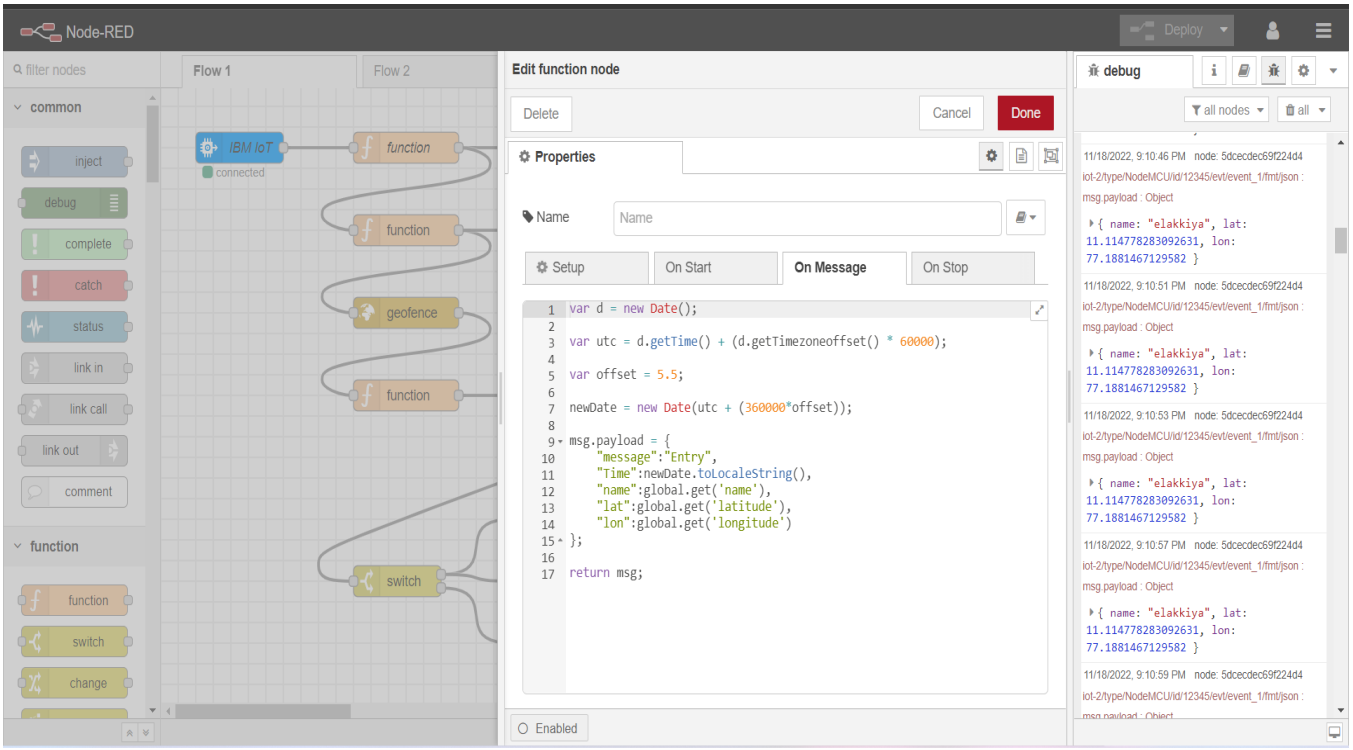

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
switch
change
IBM IoT
connected
function
function
geofence
function
function
switch
Edit geofence node
Delete
Cancel
Done
Properties
Floor
ground
Ceiling
infinity
Action
add "inarea" property
Enabled
Leaflet | Map data © OpenStreetMap contributors
Rosary Church Road
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :

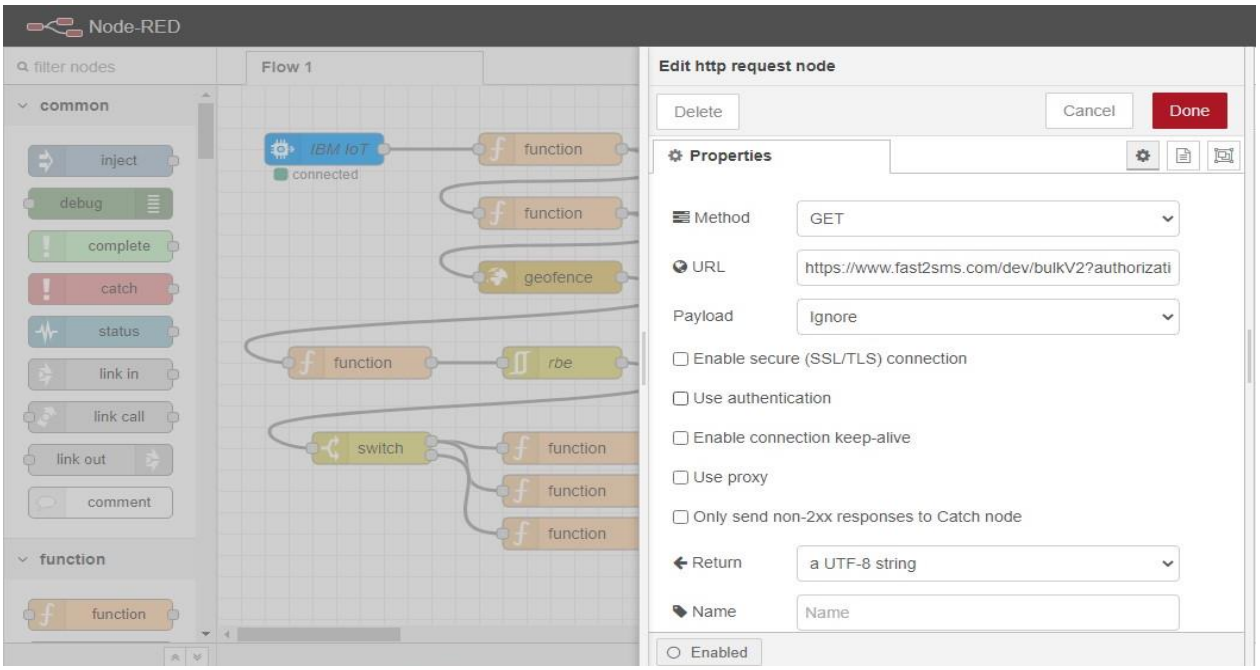

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
switch
change
IBM IoT
connected
function
function
geofence
function
function
switch
Edit function node
Delete
Cancel
Done
Properties
Name
Name
Setup
On Start
On Message
On Stop
1 msg.payload=msg.location.inarea
2 return msg;
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :

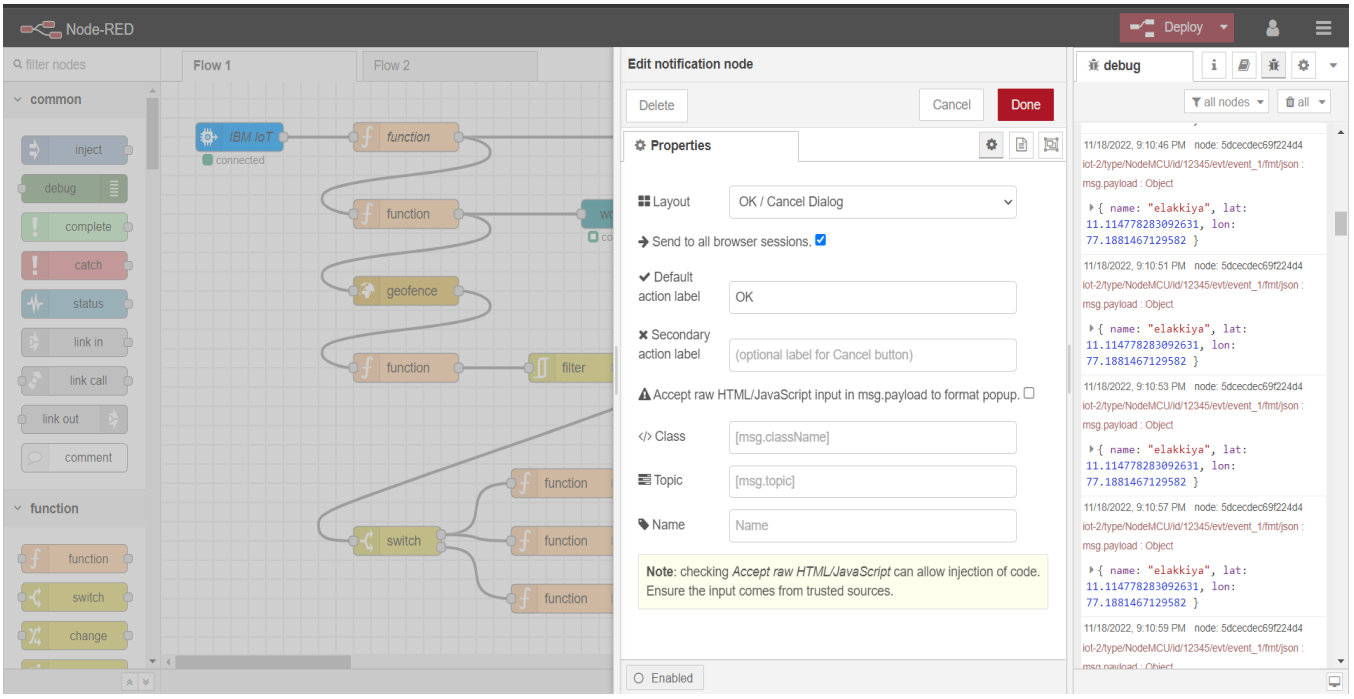

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
IBM IoT
connected
function
function
geofence
function
filter
function
switch
function
function
Edit filter node
Delete
Cancel
Done
Properties
Mode
block unless value changes
Property
msg. payload
Apply mode separately for each
msg. topic
Name
Name
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :

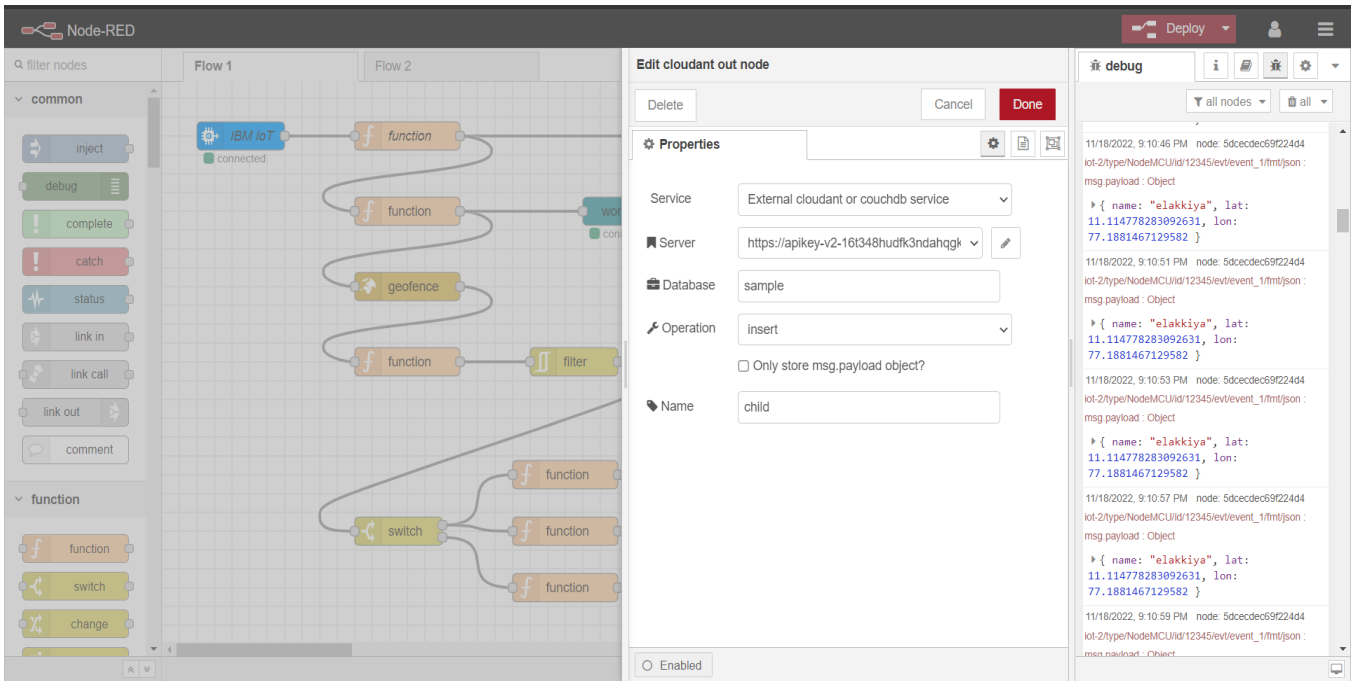

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
IBM IoT
connected
function
function
geofence
function
filter
function
switch
function
function
Edit switch node
Delete
Cancel
Done
Properties
Name
Name
Property
msg. payload
is false
→ 1
is true
→ 2
add
checking all rules
recreate message sequences
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json : msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :


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
change
IBM IoT
connected
function
function
geofence
function
switch
Edit function node
Delete
Cancel
Done
Properties
Name
Name
Setup
On Start
On Message
On Stop
var d = new Date();
var utc = d.getTime() + (d.getTimezoneoffset() * 60000);
var offset = 5.5;
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;
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :

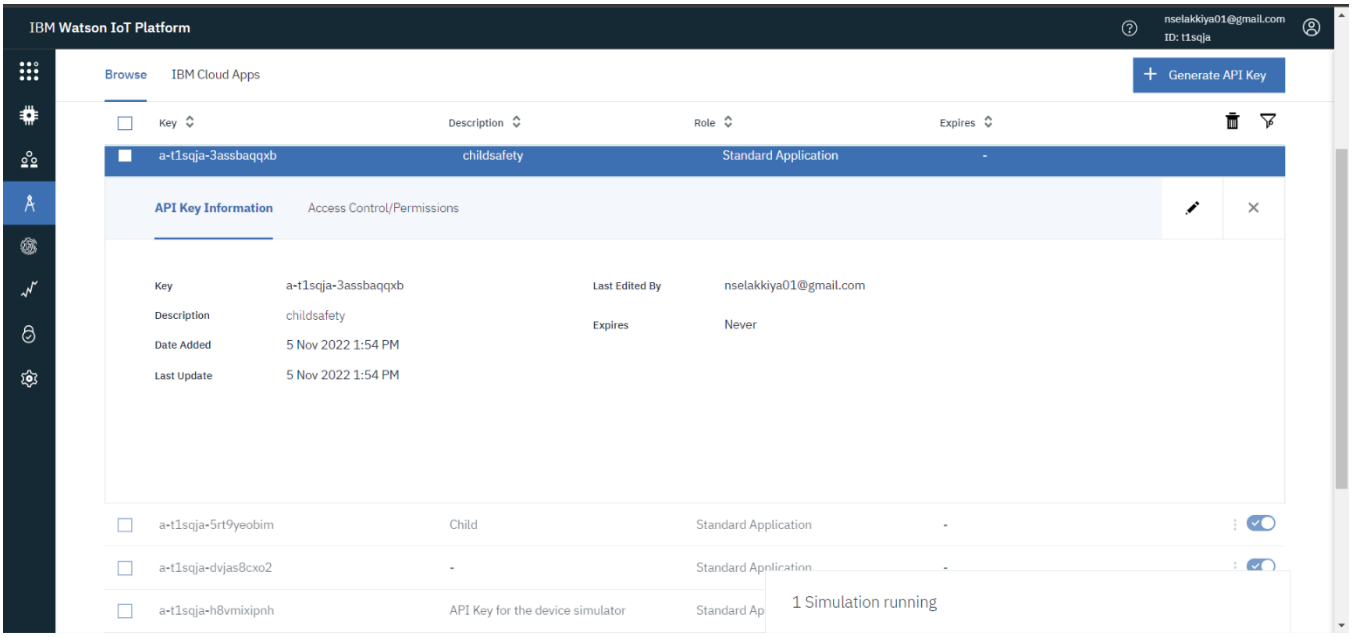

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
IBM IoT
connected
function
function
geofence
function
switch
Edit function node
Delete
Cancel
Done
Properties
Name
Name
Setup
On Start
On Message
On Stop
var d = new Date();
var utc = d.getTime() + (d.getTimezoneoffset() * 60000);
var offset = 5.5;
newDate = new Date(utc + (360000*offset));
msg.payload = {
"message":"Entry",
"Time":newDate.toLocaleString(),
"name":global.get('name'),
"lat":global.get('latitude'),
"lon":global.get('longitude')
};
return msg;
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :


Node-RED
filter nodes
Flow 1
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
IBM IoT
connected
function
function
geofence
function
rbe
switch
function
function
function
Edit http request node
Delete
Cancel
Done
Properties
Method
GET
URL
https://www.fast2sms.com/dev/bulkV2?authorizati
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
Name
Name
Enabled

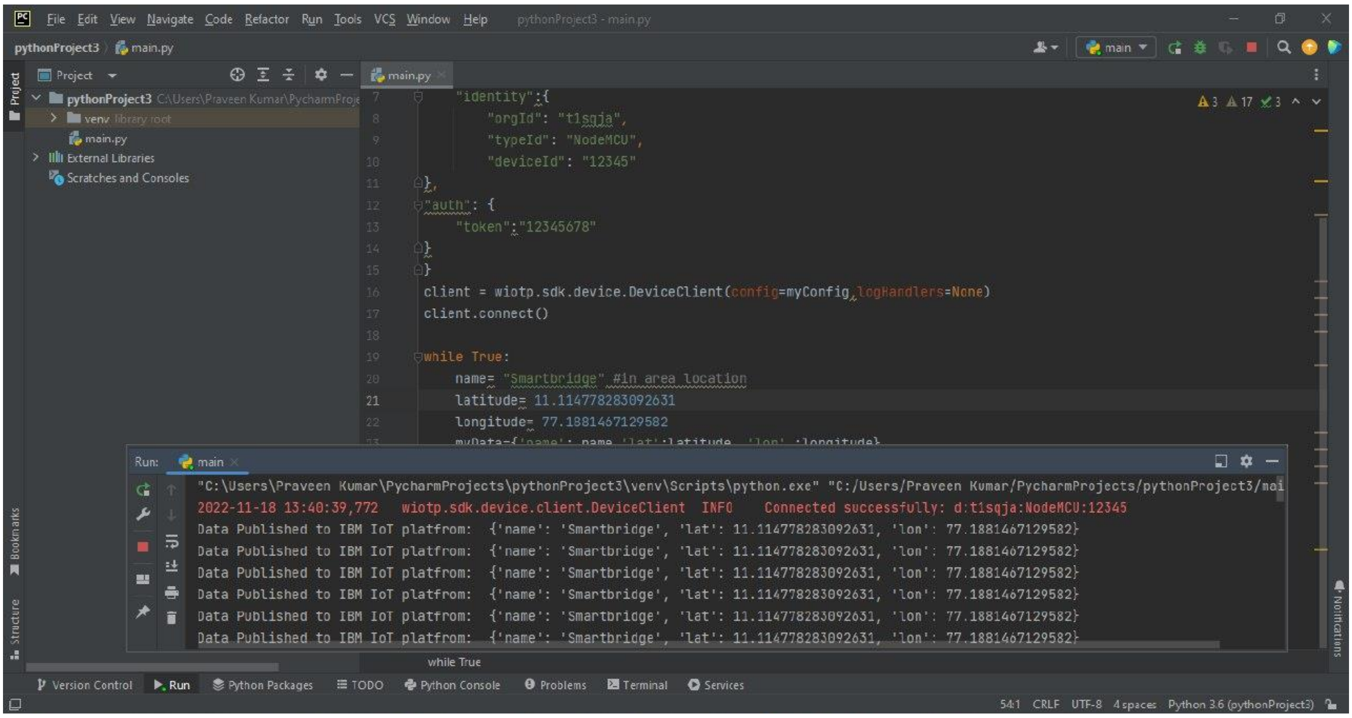

Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
IBM IoT
connected
function
function
geofence
function
filter
function
switch
function
function
Edit notification node
Delete
Cancel
Done
Properties
Layout
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.
Class
[msg.className]
Topic
[msg.topic]
Name
Name
Note: checking Accept raw HTML/JavaScript can allow injection of code. Ensure the input comes from trusted sources.
Enabled
debug
all nodes
all
11/18/2022, 9:10:46 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:51 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:53 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:57 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :
msg.payload : Object
{ name: "elakkiya", lat: 11.114778283092631, lon: 77.1881467129582 }
11/18/2022, 9:10:59 PM node: 5dcecdec69f224d4
iot-2/type/NodeMCU/id/12345/evt/event_1/fmt/json :



Connecting with IBM Cloud: Using IBM IOT node through the API key



Transferring values from Python Code:



Node-Red:

Connecting with IBM Cloud: Using IBM IOT node through the API key