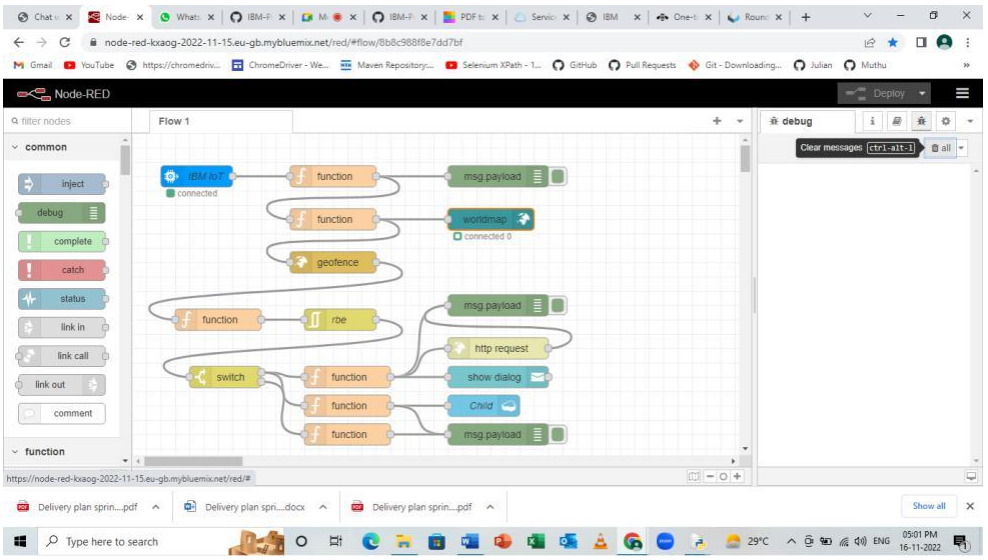
Project Development – Delivery plan sprint-3

IoT Based Safety Gadget for Child Safety Monitoring & Notification

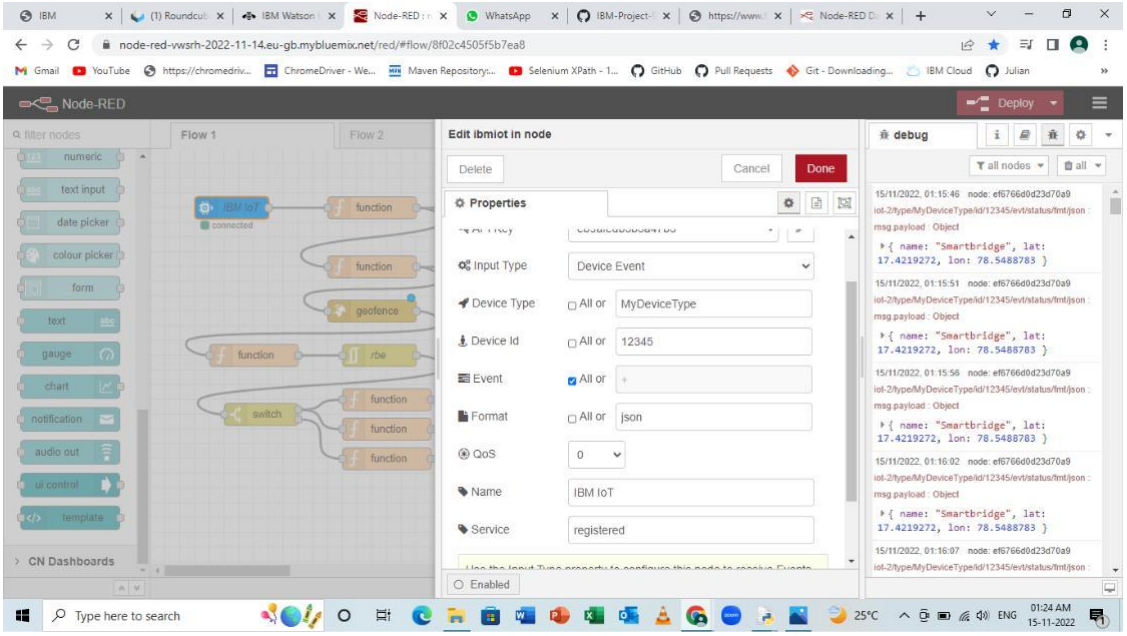
TEAM ID:PNT2022TMID44171

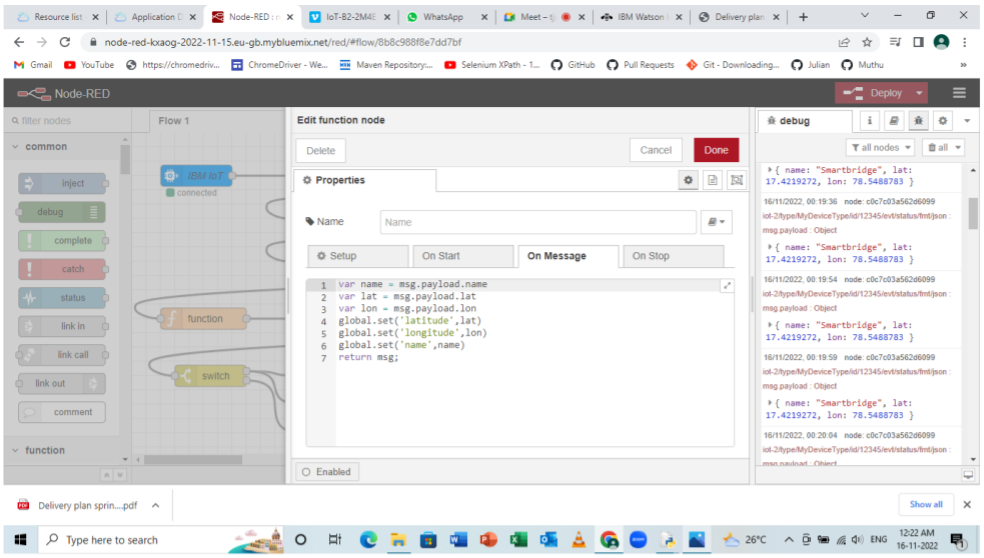
Creating Node-Red service and connecting with IBM cloud

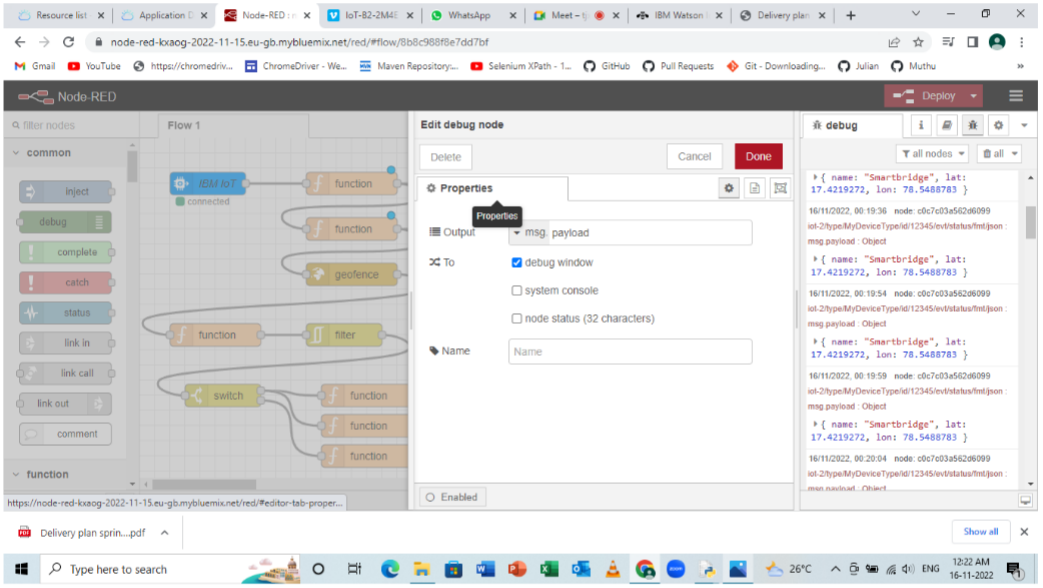
Creating Node-Red service:

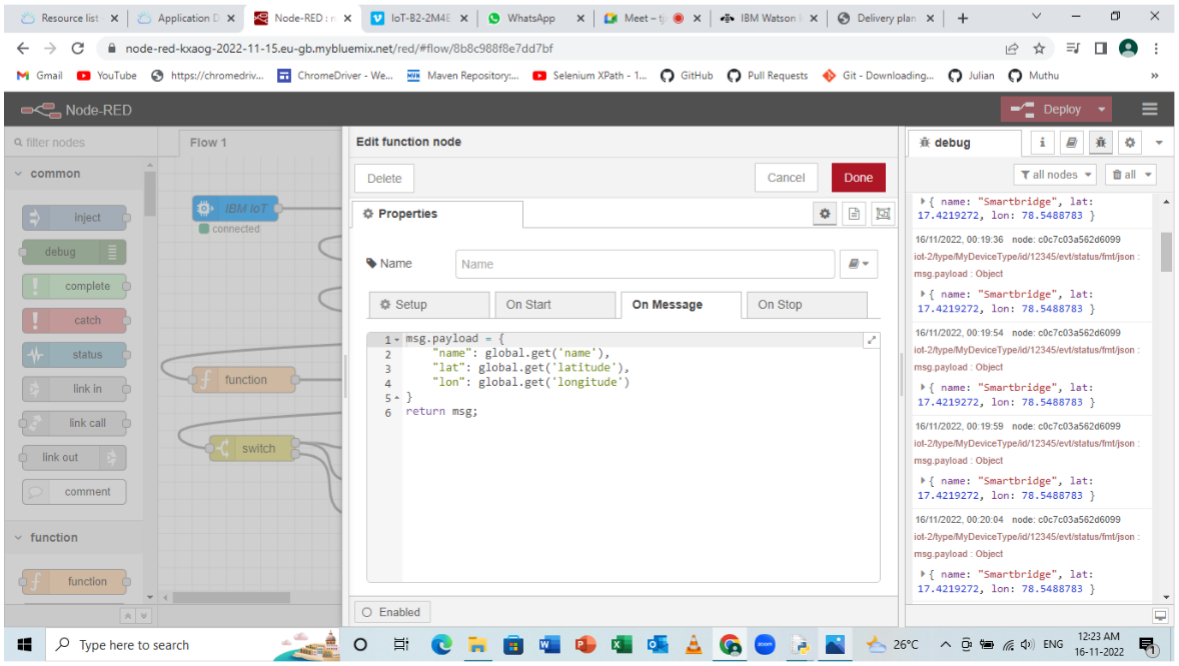


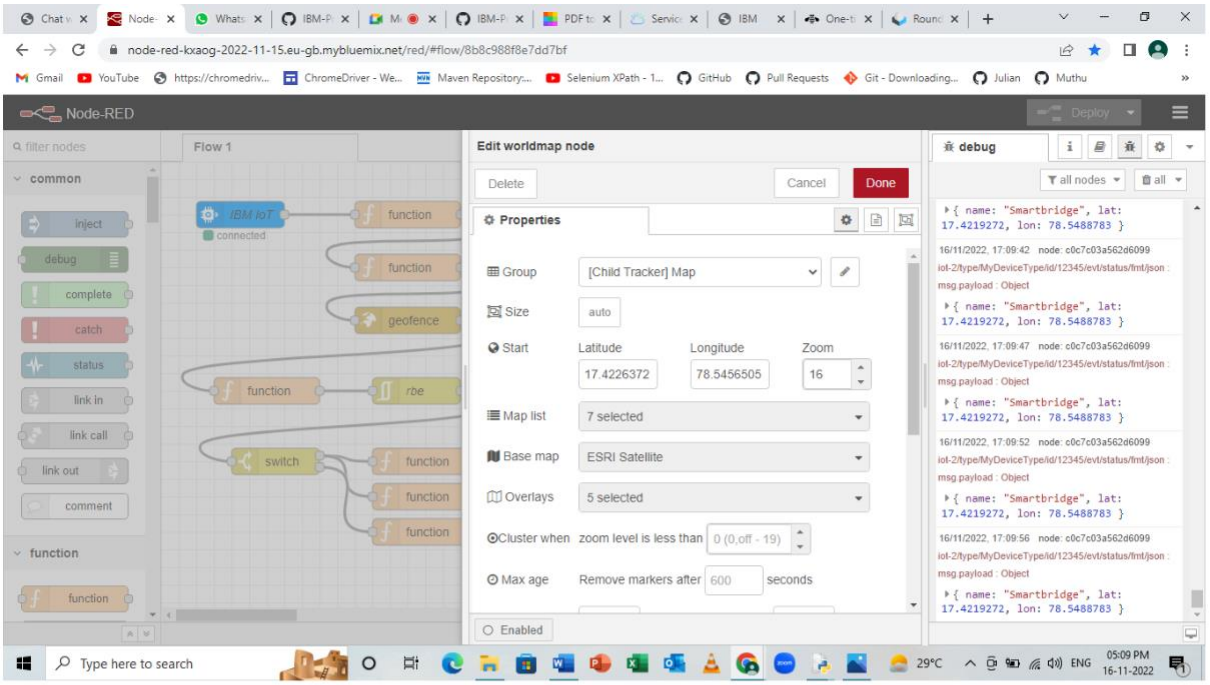
Codes in each Node:

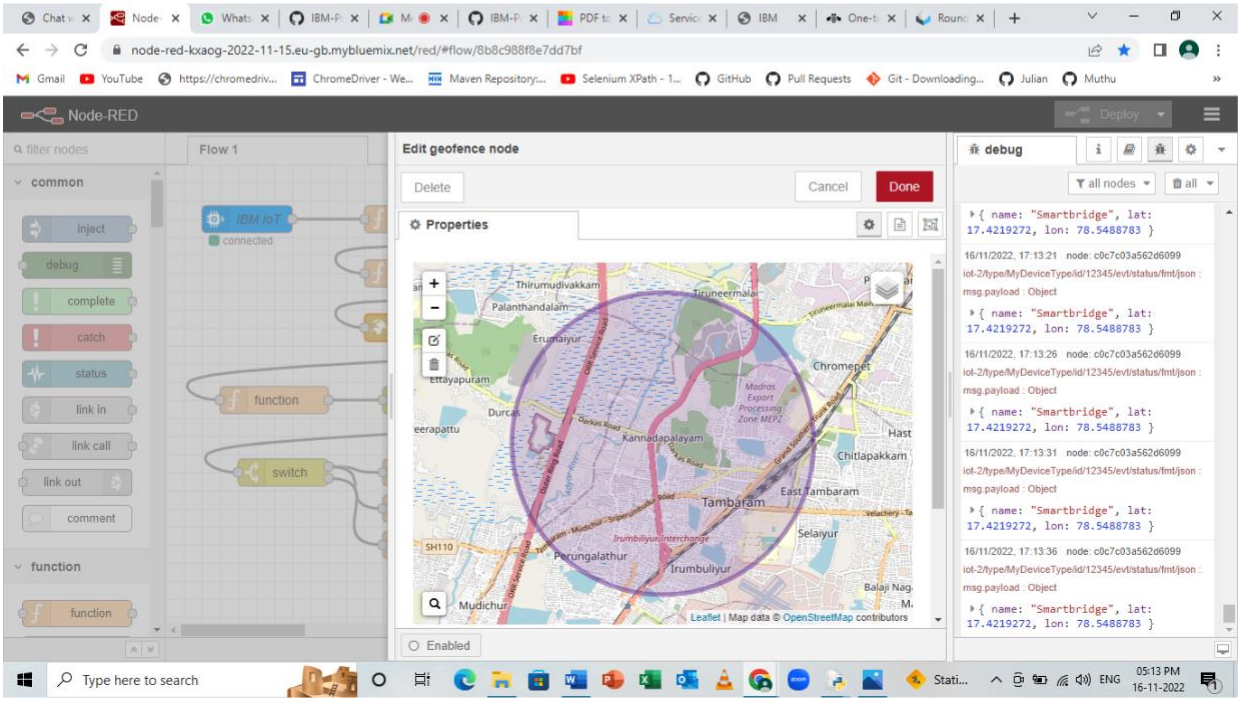


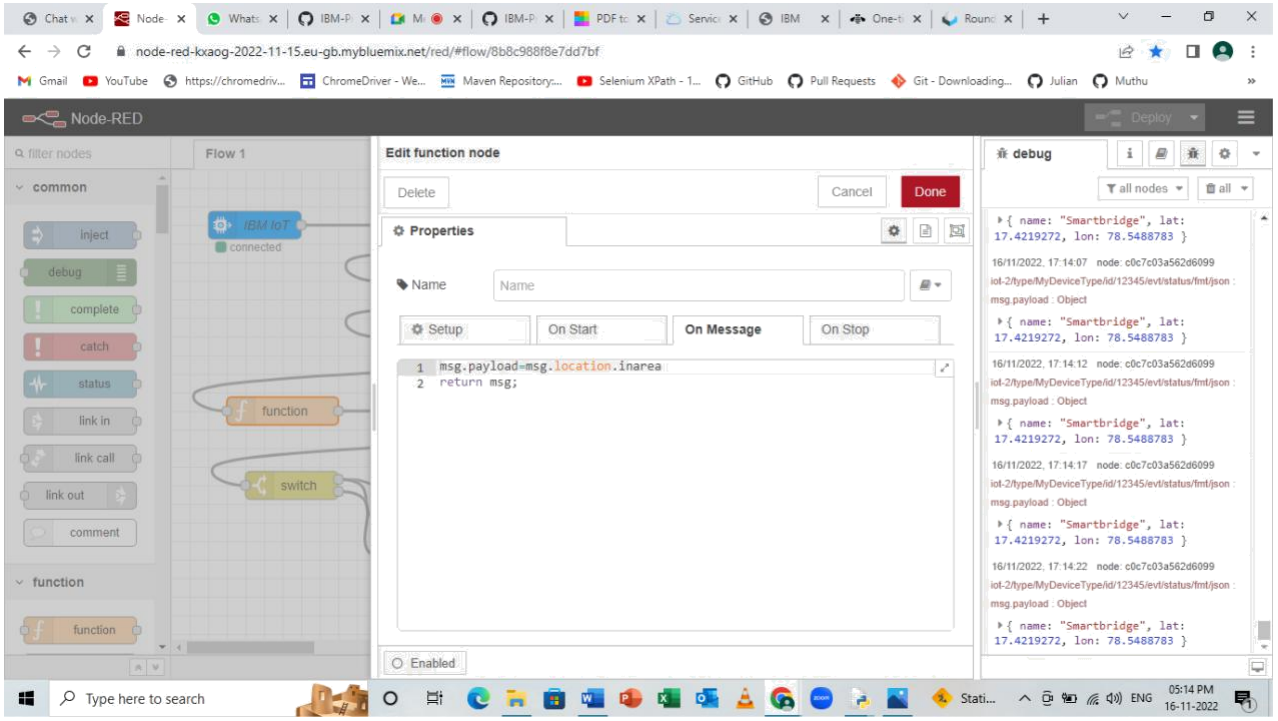

Node-RED
Deploy
Flow 1
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
var name = msg.payload.name
var lat = msg.payload.lat
var lon = msg.payload.lon
global.set('latitude',lat)
global.set('longitude',lon)
global.set('name',name)
return msg;
Enabled
debug
common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

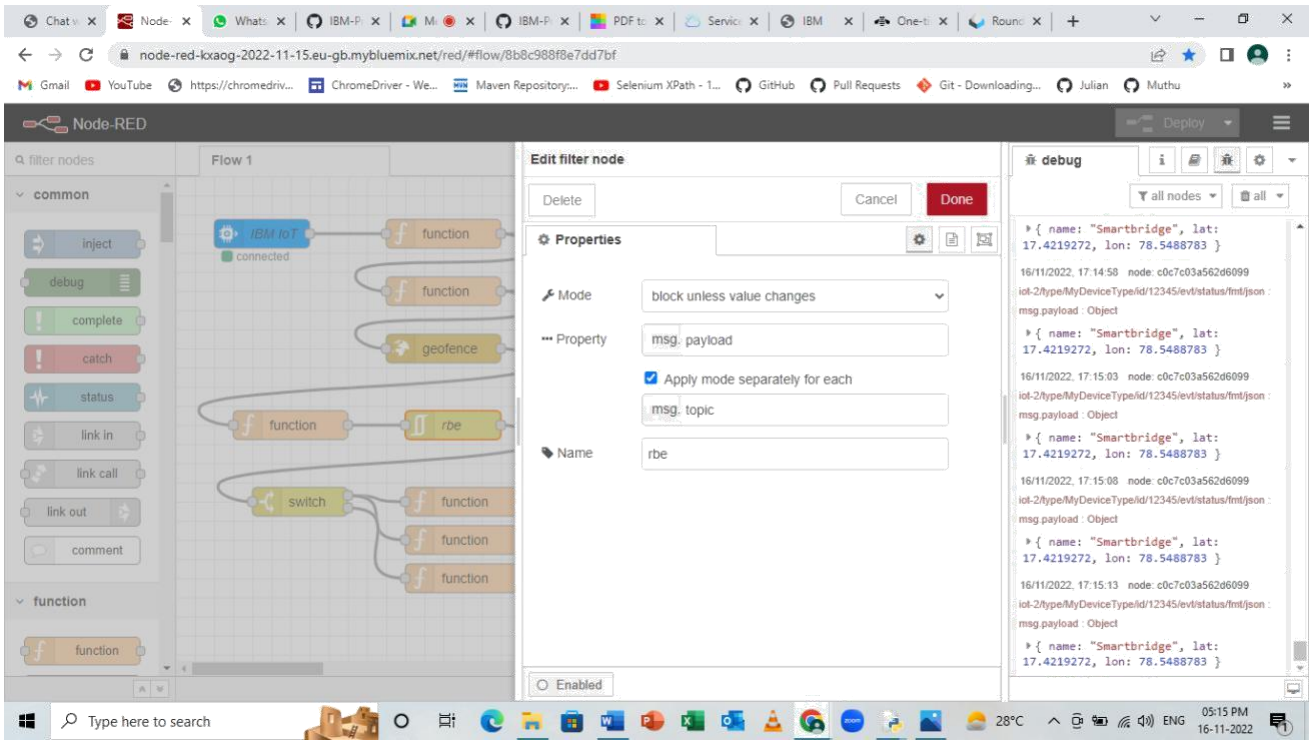

Node-RED
Deploy
Flow 1
Edit debug node
Delete
Cancel
Done
Properties
Output
msg. payload
To
debug window
system console
node status (32 characters)
Name
Enabled
debug
common
function
switch
filter
geofence
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected

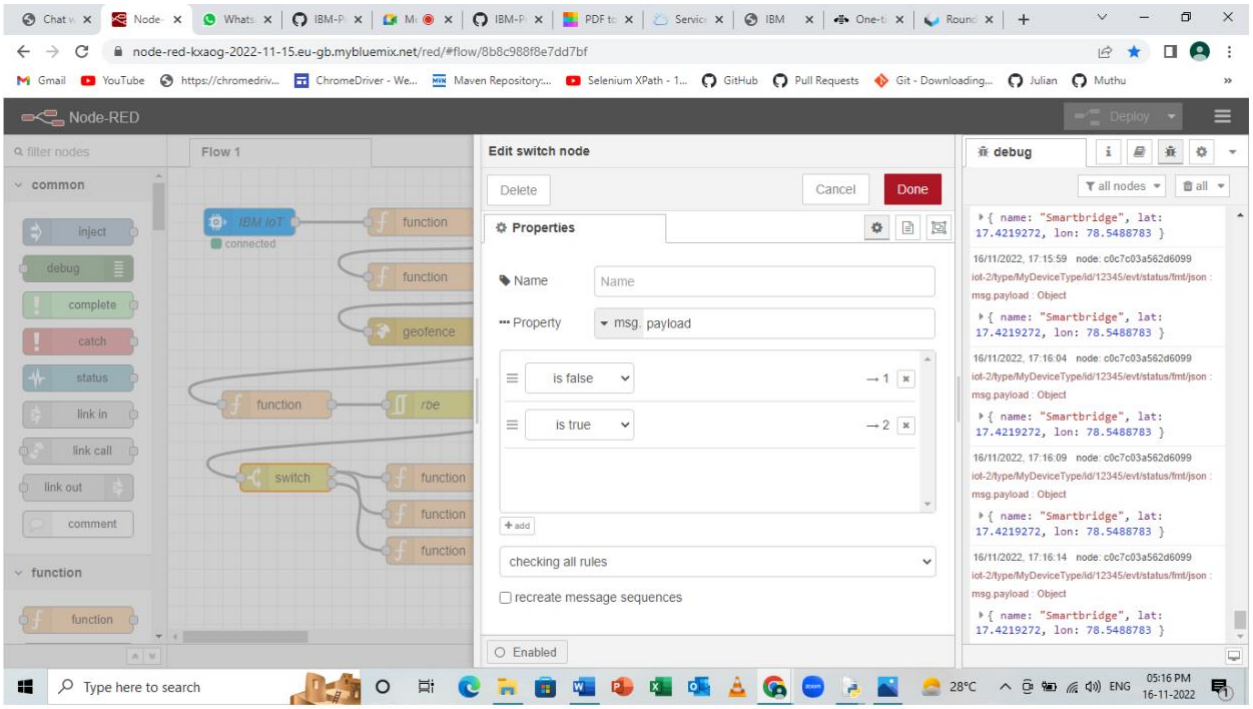

Node-RED
Deploy
Flow 1
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
msg.payload = {
"name": global.get('name'),
"lat": global.get('latitude'),
"lon": global.get('longitude')
}
return msg;
Enabled
debug
common
function
switch
inject
debug
complete
catch
status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

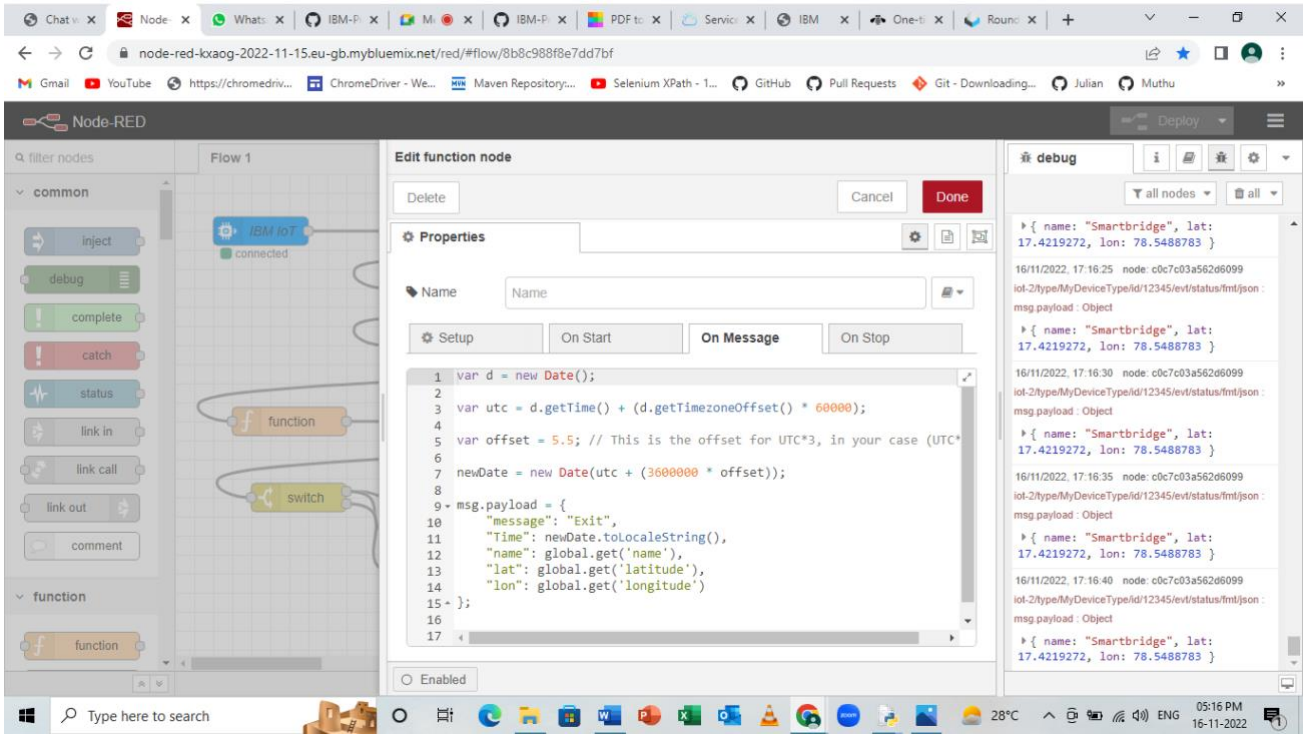

Node-RED
Flow 1
Edit worldmap node
Delete
Cancel
Done
Properties
Group
[Child Tracker] Map
Size
auto
Start
Latitude
Longitude
Zoom
17.4226372
78.5456505
16
Map list
7 selected
Base map
ESRI Satellite
Overlays
5 selected
Cluster when
zoom level is less than
0 (0,off - 19)
Max age
Remove markers after
600
seconds
Enabled
debug
common
function
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
function
geofence
rbe
switch
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
Type here to search
29°C
ENG
05:09 PM
16-11-2022

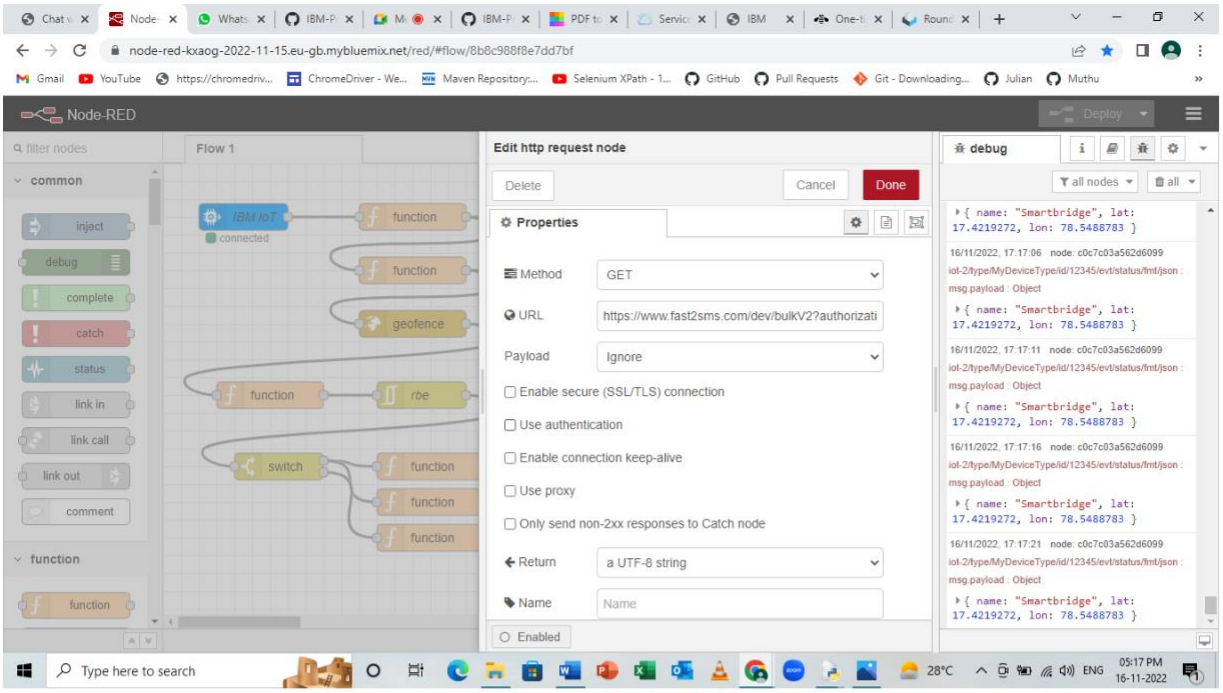

Node-RED
Flow 1
Edit geofence node
Delete
Cancel
Done
Properties
Enabled
debug
common
function
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
function
switch
Thirumudivakkam
Palanthandalam
Erumaiyur
Ettayapuram
Durgas
Kannadapalayam
Tambaram
East Tambaram
Chromepet
Chitlapakkam
Selaiyur
Perungalathur
Irumbuliyur
Mudichur
Leaflet | Map data © OpenStreetMap contributors
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
Type here to search
ENG
05:13 PM
16-11-2022

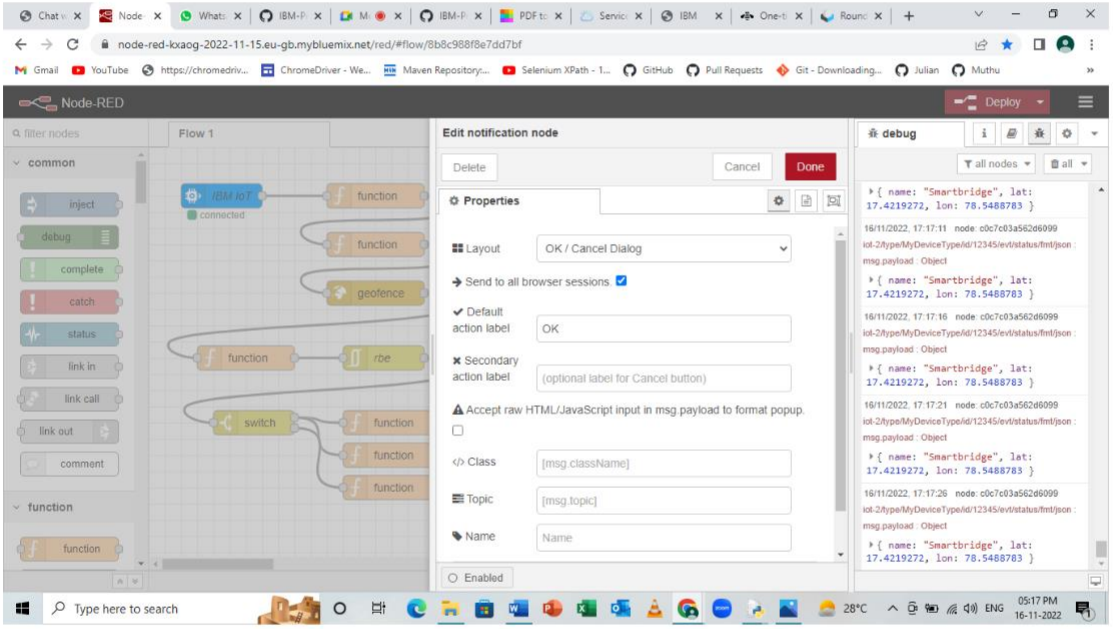

node-red-lxaog-2022-11-15.eu-gb.mybluemix.net/red/#flow/8b8c988f8e7dd7bf
Node-RED
Deploy
Flow 1
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
msg.payload=msg.location.inarea
return msg;
Enabled
debug
all nodes
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
16/11/2022, 17:14:07 node: c0c7c03a562d6099
iot-2/type/MyDeviceType/id/12345/evt/status/fmt/json : msg.payload : Object
16/11/2022, 17:14:12 node: c0c7c03a562d6099
16/11/2022, 17:14:17 node: c0c7c03a562d6099
16/11/2022, 17:14:22 node: c0c7c03a562d6099
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
switch
IBM IoT
connected
Type here to search
05:14 PM
16-11-2022

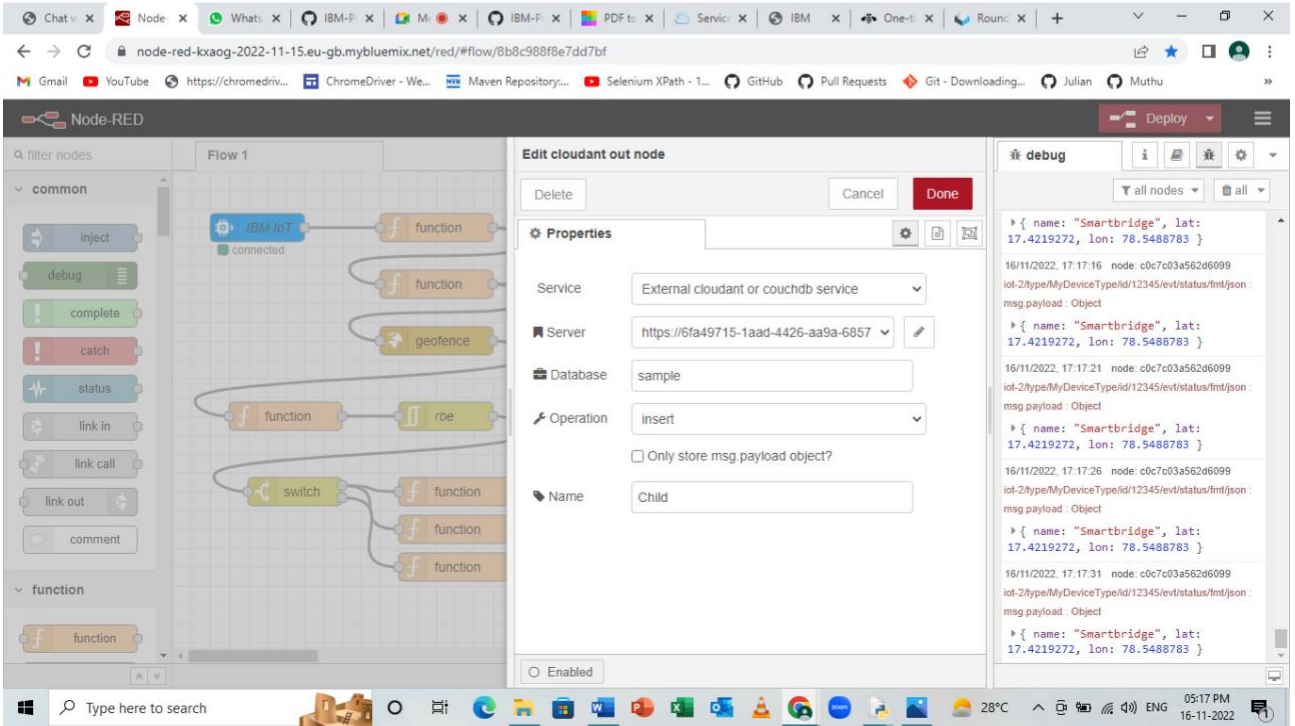

node-red-lxaog-2022-11-15.eu-gb.mybluemix.net/red/#flow/8b8c988f8e7dd7bf
Node-RED
Deploy
Flow 1
Edit filter node
Delete
Cancel
Done
Properties
Mode
block unless value changes
Property
msg. payload
Apply mode separately for each
msg. topic
Name
rbe
Enabled
debug
all nodes
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
16/11/2022, 17:14:58 node: c0c7c03a562d6099
16/11/2022, 17:15:03 node: c0c7c03a562d6099
16/11/2022, 17:15:08 node: c0c7c03a562d6099
16/11/2022, 17:15:13 node: c0c7c03a562d6099
iot-2/type/MyDeviceType/id/12345/evt/status/fmt/json : msg.payload : Object
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
switch
geofence
rbe
IBM IoT
connected
Type here to search
28°C
05:15 PM
16-11-2022


node-red-kxaog-2022-11-15.eu-gb.mybluemix.net/red/#flow/8b8c988f8e7dd7bf
Node-RED
Deploy
Flow 1
Edit switch node
Delete
Cancel
Done
Properties
Name
Property
msg. payload
is false
is true
checking all rules
recreate message sequences
Enabled
debug
common
function
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
geofence
rbe
switch
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
Type here to search
28°C
ENG
05:16 PM
16-11-2022

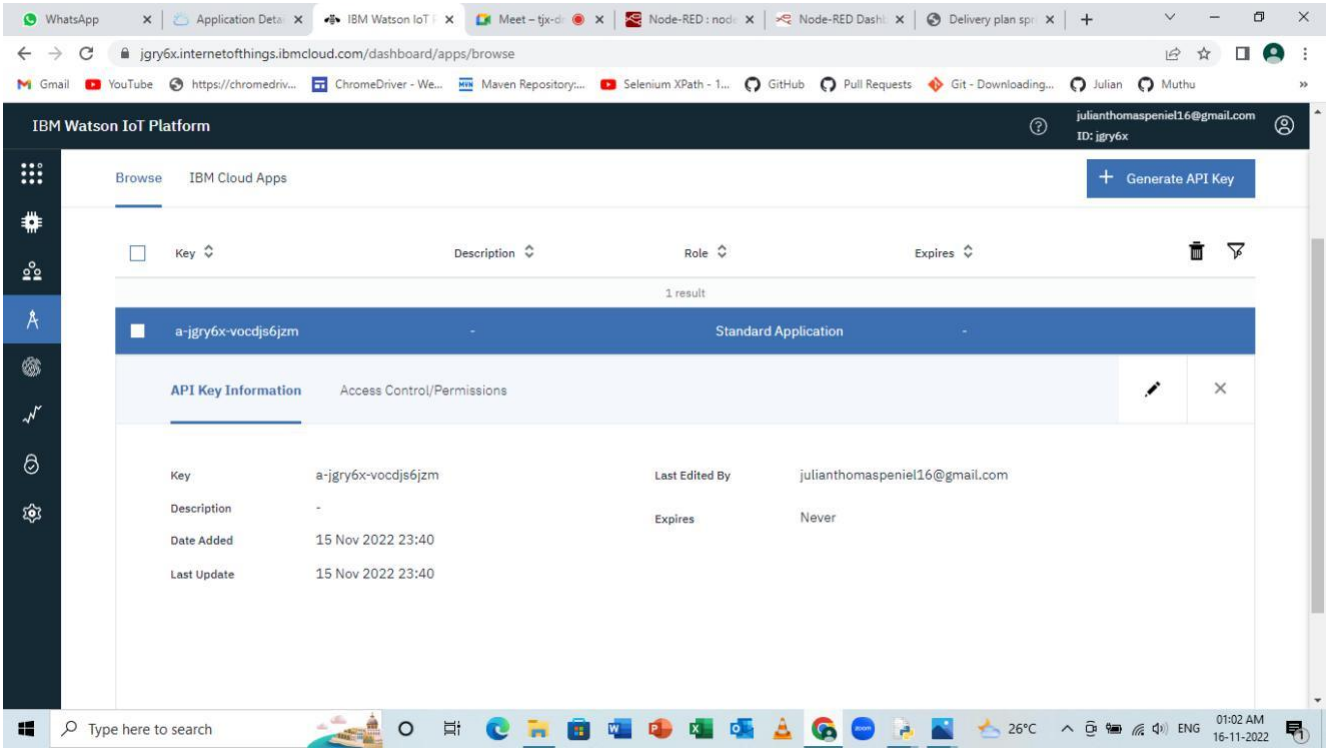

node-red-kxaog-2022-11-15.eu-gb.mybluemix.net/red/#flow/8b8c988f8e7dd7bf
Node-RED
Deploy
Flow 1
Edit function node
Delete
Cancel
Done
Properties
Name
Setup
On Start
On Message
On Stop
var d = new Date();
var utc = d.getTime() + (d.getTimezoneOffset() * 60000);
var offset = 5.5; // This is the offset for UTC*3, in your case (UTC*
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')
};
Enabled
debug
common
function
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
switch
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
Type here to search
28°C
ENG
05:16 PM
16-11-2022


node-red-kxaog-2022-11-15.eu-gb.mybluemix.net/red/#flow/8b8c988f8e7dd7bf
Node-RED
Deploy
Flow 1
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
debug
common
function
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
switch
rbe
geofence
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
Type here to search
28°C
ENG
05:17 PM
16-11-2022

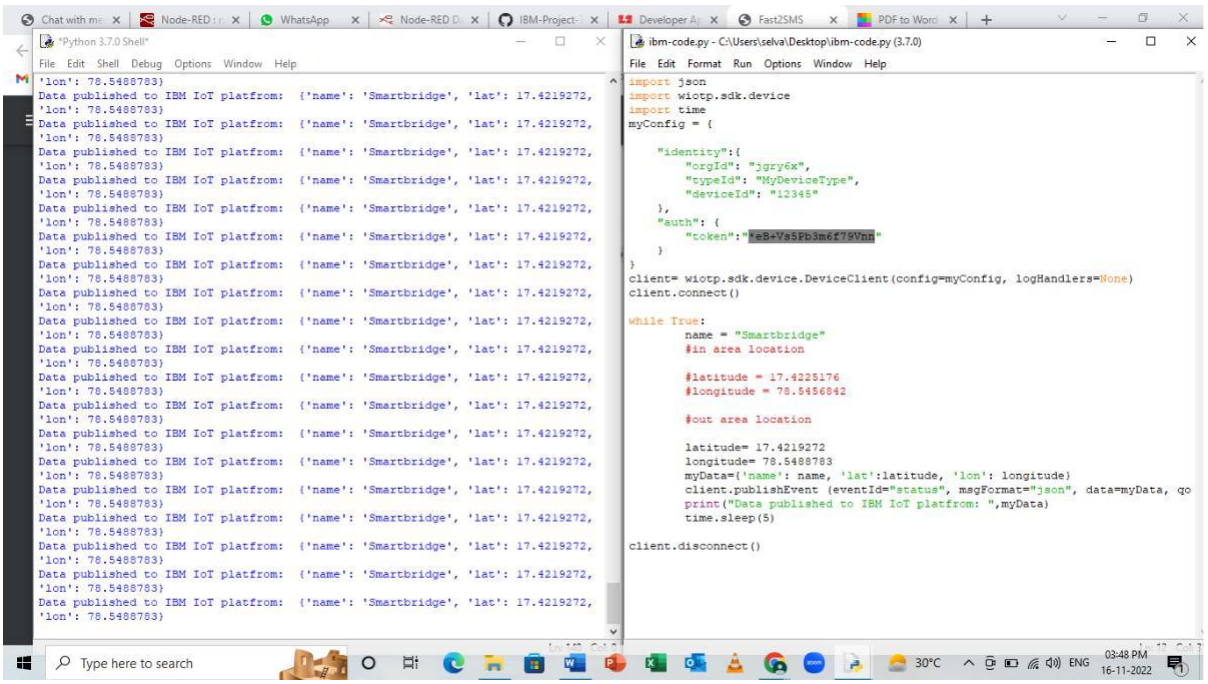

node-red-kxaog-2022-11-15.eu-gb.mybluemix.net/red/#flow/8b8c988f8e7dd7bf
Node-RED
Deploy
Flow 1
Edit notification node
Delete
Cancel
Done
Properties
Layout
OK / Cancel Dialog
Send to all browser sessions.
Default action label
OK
Secondary action label
(optional label for Cancel button)
Accept raw HTML/JavaScript input in msg.payload to format popup.
Class
[msg.className]
Topic
[msg.topic]
Name
Name
Enabled
debug
common
function
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
switch
rbe
geofence
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
Type here to search
28°C
ENG
05:17 PM
16-11-2022


node-red-kxaog-2022-11-15.eu-gb.mybluemix.net/red/#flow/8b8c988f8e7dd7bf
Node-RED
Deploy
Flow 1
Edit cloudant out node
Delete
Cancel
Done
Properties
Service
External cloudant or couchdb service
Server
https://6fa49715-1aad-4426-aa9a-6857
Database
sample
Operation
insert
Only store msg.payload object?
Name
Child
Enabled
debug
common
function
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
switch
rbe
geofence
{ name: "Smartbridge", lat: 17.4219272, lon: 78.5488783 }
Type here to search
28°C
ENG
05:17 PM
16-11-2022

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



Transferring values from Python Code:



Node-Red: