

## SPRINT- 2


<b>Date</b>	05 November 2022
<b>Team ID</b>	PNT2022TMID30696
<b>Project Name</b>	Project - IOT Based Safety Gadget for Child Safety Monitoring & Notification
<b>Maximum Marks</b>	20 marks

<b>Sprint-2</b>	US-1	Configuration the connection security and create API keys that are used in the Node-RED	10
<b>Sprint-2</b>	US-2	Configuration the connection security and create API keys that are used in the Node-RED	10

# The API key has been added.

Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the API key to generate a new authentication token.

## Generated Details

API Key      a-cci0bq-mnyawbswml 

Authentication Token      YrFLGag2gUDd7@j6YP 



Make a note of the generated authentication token. Lost authentication tokens cannot be recovered. If you lose the token, you must reregister the API to generate a new token.

## API Key Information

Description      -  
Role      Standard Application  
Expires      Never

Node-RED

Deploy

Flow 1

debug

04/11/2022, 02:16:25 node: msg payload  
iot-2/type/LocationId/PNT2022TMD47484/event\_1/fmt/js  
» { Latitude: -56, Longitude: 188 }

04/11/2022, 02:16:28 node: msg payload  
iot-2/type/LocationId/PNT2022TMD47484/event\_1/fmt/js  
» { Latitude: 80, Longitude: 43 }

04/11/2022, 02:16:31 node: msg payload  
iot-2/type/LocationId/PNT2022TMD47484/event\_1/fmt/js  
» { Latitude: -28, Longitude: 141 }

04/11/2022, 02:16:34 node: msg payload  
iot-2/type/LocationId/PNT2022TMD47484/event\_1/fmt/js  
» { Latitude: 58, Longitude: -58 }

04/11/2022, 02:16:37 node: msg payload  
iot-2/type/LocationId/PNT2022TMD47484/event\_1/fmt/js  
» { Latitude: -7, Longitude: 124 }

04/11/2022, 02:16:40 node: msg payload  
iot-2/type/LocationId/PNT2022TMD47484/event\_1/fmt/js  
» { Latitude: -39, Longitude: -122 }

04/11/2022, 02:16:43 node: msg payload  
iot-2/type/LocationId/PNT2022TMD47484/event\_1/fmt/js

IBM IoT

msg payload



Longitude

IBM App Development x Node-RED : 159.122.187.66 x mycluster-free - IBM Cloud x Service Details - IBM Cloud x IBM Watson IoT Platform x + -

Not secure | 159.122.187.66:32317/red/#flow/42a63dbceeb1df9e

Node-RED

Flow 1

filter nodes

switch slider numeric text input date picker colour picker text gauge audio out form notification chart ui control template

connected

function

gauge

gauge

gauge

info

Search flows

Flows

Flow 1

Subflows

Global Configuration Nodes

Flow 1

Flow "42a63dbceeb1df9e"

Enable or disable these tips from the option in the settings Activate Windows Go to Settings to activate Windows.

159.122.187.66:32317/red/#

Search the web and Windows

10:32 PM 11/19/2022

IBM App Development x Node-RED : 159.122.187.66 x mycluster-free - IBM Cloud x Service Details - IBM Cloud x IBM Watson IoT Platform x + -

Not secure | 159.122.187.66:32317/red/#flow/42a63dbceeb1df9e

Node-RED

Flow 1

filter nodes

switch slider numeric text input date picker colour picker text gauge audio out form notification chart ui control template

connected

Edit ibmiot in node

Delete Cancel Done

Properties

Authentication API Key

API Key PRO

Input Type Device Event

Device Type All or +

Device Id All or device id e.g. ab12cd231a21

Event All or +

Format All or json

QoS 0

Name IBM IoT

Service realstered

Enabled

info

Search flows

Flows

Flow 1

Subflows

Global Configuration Nodes

IBM IoT

Node "396e7b5f0ee656d6"

Type ibmiot in

show more

ctrl-space will toggle the view of this sidebar Activate Windows Go to Settings to activate Windows.

159.122.187.66:32317/red/#

Search the web and Windows

10:33 PM 11/19/2022

network

http in

Delete

Cancel

all nodes

Properties

{ Latitude: Longitude: }

Setup

On Start

OnMessage

OnStop

Object

connected

load = mse.payload.Latitude

Longitude: -33

network

http in

Delete

Cancel

Done

all nodes

Properties

{ Latitude: Longitude: }

Group (Home) ctld saes

lat-2/type/locationId/PNT2022TMD47484/event\_1/fmt/json:

EZ ze auto

Object

pe Gauge

Longitude: -33

I blue normal {{value}}

lat-2/type/locationId/PNT2022TMD47484/event\_1/fmt/json:  
msg payload: Object  
{ Latitude: 45, Longitude: -96 }

I units

lat-2/type/locationId/PNT2022TMD47484/event\_1/fmt/json:

Range min 0 max 10

Colour gradient

Sectors 0 optional optional 10

05/11/2022, 01:47:25 node: msg payload:  
lat-2/type/locationId/PNT2022TMD47484/event\_1/fmt/json:  
msg payload: Object  
{ Latitude: 44, Longitude: -187 }

Node-RED interface showing a flow with an IBM IoT node connected to a gauge node. The gauge node is configured with the following properties:

- Group: [Home] child safety
- Size: auto
- Type: Gauge
- Label: Latitude
- Value format: {{value}}
- Units: units
- Range: min 0, max 10
- Colour gradient: Green, Yellow, Red
- Sectors: 0, optional, optional, 10
- Name:

The debug console shows the following message payloads:

```
msg.payload: Object
  > { Latitude: -16, Longitude: -70 }

05/11/2022, 01:47:16 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > object
    Latitude: 63
    Longitude: -33

05/11/2022, 01:47:19 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > { Latitude: 45, Longitude: -96 }

05/11/2022, 01:47:22 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > { Latitude: -81, Longitude: 167 }

05/11/2022, 01:47:25 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > { Latitude: 44, Longitude: -107 }

05/11/2022, 01:47:28 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
```

Node-RED interface showing a flow with an IBM IoT node connected to a function node. The function node is configured with the following properties:

- Name: Latitude node
- Setup:
- On Start:
- On Message: 

```
1 msg.payload = msg.payload.Latitude
2 return msg;
```
- On Stop:

The debug console shows the following message payloads:

```
msg.payload: Object
  > { Latitude: -16, Longitude: -70 }

05/11/2022, 01:47:16 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > object
    Latitude: 63
    Longitude: -33

05/11/2022, 01:47:19 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > { Latitude: 45, Longitude: -96 }

05/11/2022, 01:47:22 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > { Latitude: -81, Longitude: 167 }

05/11/2022, 01:47:25 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
  > { Latitude: 44, Longitude: -107 }

05/11/2022, 01:47:28 node: msg payload
iot-2/type/Location/id/PNT2022TMD47484/ev/event_1/fmt/json:
msg.payload: Object
```

Node-RED interface showing a function node configuration and a debug console.

**Function Node Properties:**

- Name: httpfunctionnode
- Tab: On Message

**Function Code:**

```
1 msg.payload={"longitude":global.get(long)
2
3 "latitude": global.get(lati)}
4 return msg;
```

**Debug Console:**

msg.payload - Object

- Latitude: -16, Longitude: -70

05/11/2022, 01:47:16 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

object

- Latitude: 63
- Longitude: -33

05/11/2022, 01:47:19 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

- Latitude: 45, Longitude: -96

05/11/2022, 01:47:22 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

- Latitude: -81, Longitude: 167

05/11/2022, 01:47:25 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

- Latitude: 44, Longitude: -107

05/11/2022, 01:47:28 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

Node-RED interface showing a function node configuration and a debug console.

**Function Node Properties:**

- Name: httpfunctionnode
- Tab: On Message

**Function Code:**

```
1 msg.payload = msg.payload.command
2 return msg;
```

**Debug Console:**

msg.payload - Object

- Latitude: -16, Longitude: -70

05/11/2022, 01:47:16 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

object

- Latitude: 63
- Longitude: -33

05/11/2022, 01:47:19 node: msg payload  
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msg.payload - Object

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05/11/2022, 01:47:22 node: msg payload  
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msg.payload - Object

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05/11/2022, 01:47:25 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

- Latitude: 44, Longitude: -107

05/11/2022, 01:47:28 node: msg payload  
iot-2/type/Location/id/PNT2022TMD47484/ev/event\_1/fmt/json :  
msg.payload - Object

Node-RED

Deploy

ht

Flow 1

network

http in

http response

http request

IBM IoT

connected

Lat

Lat

http

Edit http in node

Delete

Cancel

Done

Properties

Method

GET

URL

/control

Name

Name

debug

all nodes

all

msg.payload : Object

{ Latitude: -16, Longitude: -70 }

05/11/2022, 01:47:16 node: msg payload

iot-2/type/LocationId/PNT2022TMD47484/ev/levent\_1/fmtjson :

msg.payload : Object

object

Latitude: 63

Longitude: -33

05/11/2022, 01:47:19 node: msg payload

iot-2/type/LocationId/PNT2022TMD47484/ev/levent\_1/fmtjson :

msg.payload : Object

{ Latitude: 45, Longitude: -96 }

05/11/2022, 01:47:22 node: msg payload

iot-2/type/LocationId/PNT2022TMD47484/ev/levent\_1/fmtjson :

msg.payload : Object

{ Latitude: -81, Longitude: 167 }

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iot-2/type/LocationId/PNT2022TMD47484/ev/levent\_1/fmtjson :

msg.payload : Object