


Project Development Phase SPRINT-2

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|---------------|--|
| Date | 19 November 2022 |
| Team ID | PNT2022TMID06124 |
| Project Name | IoT Based Safety Gadget for Child Safety Monitoring & Notification |
| Maximum Marks | 20 marks |

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 interface showing a flow named "Flow 1" with an "IBM IoT" node connected to a "msg payload" node. The "debug" console displays a series of messages, each containing a timestamp, a node name, and a JSON payload with Latitude and Longitude values.

Flow 1:

```
graph LR; IoT[IBM IoT] --> Payload[msg payload];
```

Debug Console:

```
04/11/2022, 02:16:25 node: msg payload
iot-2/type/LocationId/PNT2022TMID47484/evt/event_1/fmt/json : msg payload : Object
  { Latitude: -36, Longitude: 108 }

04/11/2022, 02:16:28 node: msg payload
iot-2/type/LocationId/PNT2022TMID47484/evt/event_1/fmt/json : msg payload : Object
  { Latitude: 80, Longitude: 43 }

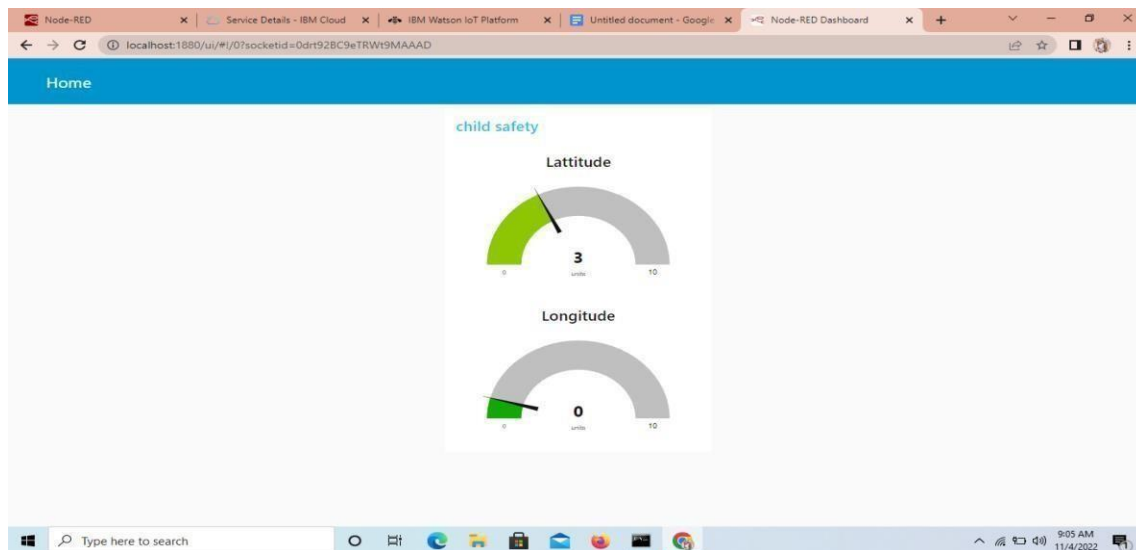
04/11/2022, 02:16:31 node: msg payload
iot-2/type/LocationId/PNT2022TMID47484/evt/event_1/fmt/json : msg payload : Object
  { Latitude: -28, Longitude: 141 }

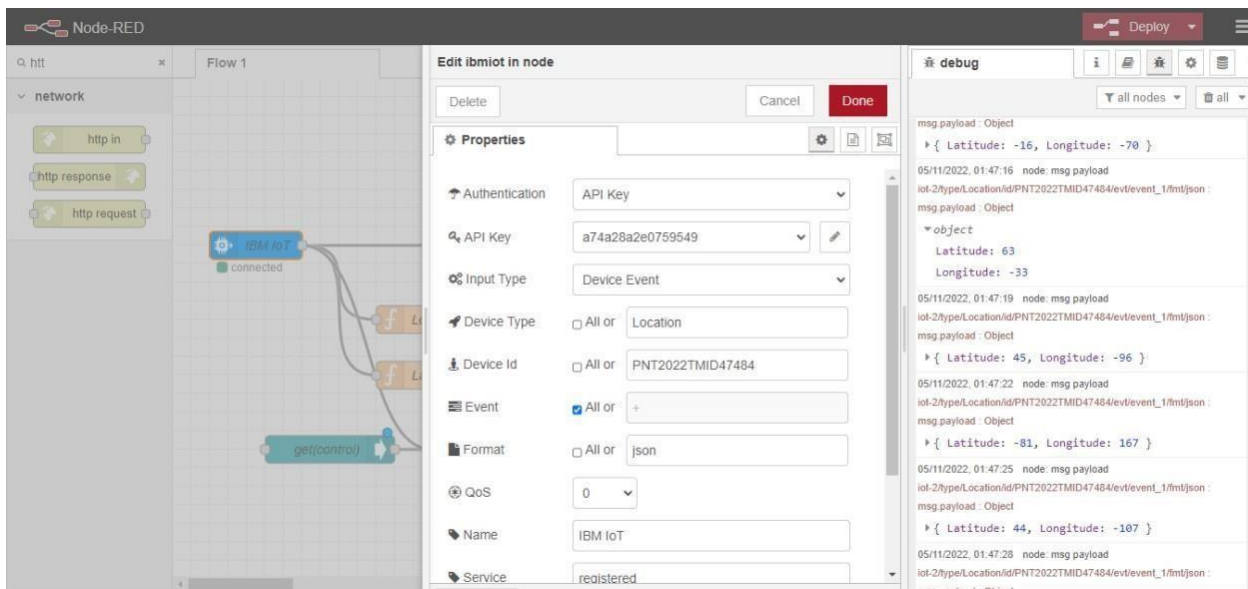
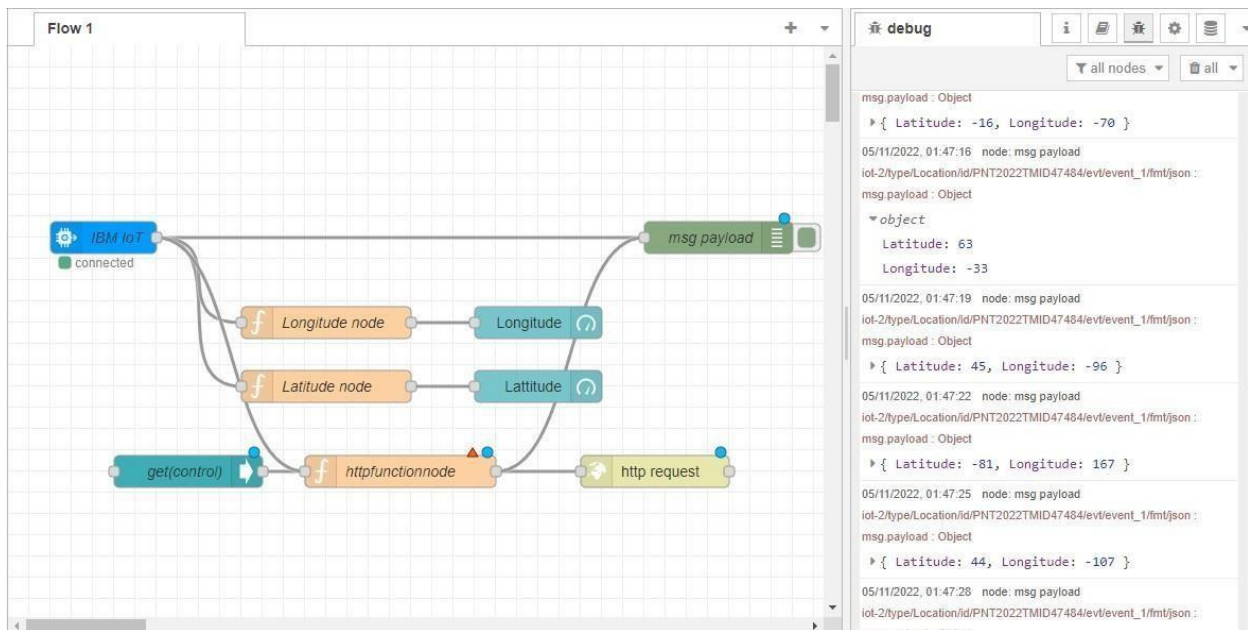
04/11/2022, 02:16:34 node: msg payload
iot-2/type/LocationId/PNT2022TMID47484/evt/event_1/fmt/json : msg payload : Object
  { Latitude: 58, Longitude: -58 }

04/11/2022, 02:16:37 node: msg payload
iot-2/type/LocationId/PNT2022TMID47484/evt/event_1/fmt/json : msg payload : Object
  { Latitude: -7, Longitude: 124 }

04/11/2022, 02:16:40 node: msg payload
iot-2/type/LocationId/PNT2022TMID47484/evt/event_1/fmt/json : msg payload : Object
  { Latitude: -39, Longitude: -122 }

04/11/2022, 02:16:43 node: msg payload
iot-2/type/LocationId/PNT2022TMID47484/evt/event_1/fmt/json : msg payload : Object
  { Latitude: -48, Longitude: 75 }
```





Node-RED interface showing the "Edit function node" configuration. The node is named "Longitude node" and is configured to process the "Longitude" property of the message payload. The code in the function editor is:

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

The debug console shows the following log entries:

```
msg payload : Object
  { Latitude: -16, Longitude: -70 }
05/11/2022, 01:47:16 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: 63, Longitude: -33 }
05/11/2022, 01:47:19 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: 45, Longitude: -96 }
05/11/2022, 01:47:22 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: -81, Longitude: 167 }
05/11/2022, 01:47:25 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: 44, Longitude: -107 }
05/11/2022, 01:47:28 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
```

Node-RED interface showing the "Edit gauge node" configuration. The node is named "Longitude node" and is configured to display the "Longitude" property of the message payload. The configuration is as follows:

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

The debug console shows the following log entries:

```
msg payload : Object
  { Latitude: -16, Longitude: -70 }
05/11/2022, 01:47:16 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: 63, Longitude: -33 }
05/11/2022, 01:47:19 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: 45, Longitude: -96 }
05/11/2022, 01:47:22 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: -81, Longitude: 167 }
05/11/2022, 01:47:25 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
msg payload : Object
  { Latitude: 44, Longitude: -107 }
05/11/2022, 01:47:28 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json :
```

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/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: 63, Longitude: -33
}

05/11/2022, 01:47:19 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: 45, Longitude: -96
}

05/11/2022, 01:47:22 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: -81, Longitude: 167
}

05/11/2022, 01:47:25 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: 44, Longitude: -107
}

05/11/2022, 01:47:28 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_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/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: 63, Longitude: -33
}

05/11/2022, 01:47:19 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: 45, Longitude: -96
}

05/11/2022, 01:47:22 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: -81, Longitude: 167
}

05/11/2022, 01:47:25 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
{
  Latitude: 44, Longitude: -107
}

05/11/2022, 01:47:28 node: msg payload
iot-2/type/LocationId/PNT2022TMD47484/ev/evnt_1/fmt/json:
msg.payload: Object
```

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

Function Node Configuration:

- Name: httpfunctionnode
- Trigger: On Message
- 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-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

▼ object

```
Latitude: 63  
Longitude: -33
```

05/11/2022, 01:47:19 node: msg payload
iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

```
{ Latitude: 45, Longitude: -96 }
```

05/11/2022, 01:47:22 node: msg payload
iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

```
{ Latitude: -81, Longitude: 167 }
```

05/11/2022, 01:47:25 node: msg payload
iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

```
{ Latitude: 44, Longitude: -107 }
```

05/11/2022, 01:47:28 node: msg payload
iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

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

Function Node Configuration:

- Name: httpfunctionnode
- Trigger: On Message
- 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-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

▼ object

```
Latitude: 63  
Longitude: -33
```

05/11/2022, 01:47:19 node: msg payload
iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

```
{ Latitude: 45, Longitude: -96 }
```

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iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

```
{ Latitude: -81, Longitude: 167 }
```

05/11/2022, 01:47:25 node: msg payload
iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

```
{ Latitude: 44, Longitude: -107 }
```

05/11/2022, 01:47:28 node: msg payload
iot-2typeLocationId/PNT2022TMD47484/ev/ev/ev_1/fmt/json :
msg.payload : Object

Node-RED

Flow 1

network

- http in
- http response
- http request

IBM IoT

connected

http

Lat

Lat

http

Edit http in node

Delete Cancel Done

Properties

Method GET

URL /control

Name Name

debug

msg payload : Object

{ Latitude: -16, Longitude: -70 }

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

iot-2typeLocationId/PNT2022TMD47484ev/ev/ev/ev_1/fmt/json :

msg payload : Object

object

Latitude: 63

Longitude: -33

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

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