

Sprint-2

Date	18-11-2022
Team ID	PNT2022TMID33963
Project name	Signs with smart connectivity for better road safety
Maximum marks	20 marks

US-1: Configure the connection security and create API keys that are used in the Node-red service for accessing the IBM IOT platform.

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes the IBM logo and the text "IBM Watson IoT Platform". The main content area is titled "Browse IBM Cloud Apps" and contains a section for "Generated Details" and "API Key Information". The "Generated Details" section shows the "API Key" as "a-8slgr2-yqb20jfbv" and the "Authentication Token" as "q3tgVVKPp(-TQiw5W+ ". A warning icon and text state: "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." The "API Key Information" section shows the "Description" as "-", the "Role" as "Standard Application", and the "Expires" as "Never". Below this, there are buttons for "View API Key", "Add Another", and "Close".

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
1 Simulation running		

US-2: Create a Node-red service.

Node-RED interface showing a flow named "Flow 1". The flow consists of two nodes connected in a sequence: "IBM IoT" (blue node) and "msg.payload" (green node). The left sidebar shows the "filter nodes" and "network" categories. The "network" category is expanded, showing various nodes like "mqtt in", "mqtt out", "http in", "http response", "http request", "websocket in", "websocket out", "tcp in", and "tcp out".

Node-RED interface showing the "Edit http request node" dialog box. The dialog box is open, showing the "Properties" tab. The "Method" is set to "GET", the "URL" is "http://", and the "Payload" is "Ignore". The "Return" type is set to "a UTF-8 string". The "Name" field is empty. The "Enabled" checkbox is checked.

← → ↻ <https://node-red-nwmrt-2022-11-04.eu-gb.mybluemix.net/red/#flow/7edc61293df1643f>

Node-RED

filter nodes

template

delay

trigger

filter

OpenWhisk

network

mqtt in

mqtt out

http in

http response

http request

websocket in

websocket out

tcp in

tcp out

Flow 1

Flow 2

IBM IoT

Time stamp

http request

Edit inject node

Delete

Cancel

Done

Properties

Name

Time stamp

msg. payload = timestamp

msg. topic = a_z

Inject now

Inject once after 0.1 seconds, then

Repeat none

Enabled

← → ↻ <https://node-red-nwmrt-2022-11-04.eu-gb.mybluemix.net/red/#flow/7edc61293df1643f>

Node-RED

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tcp in

tcp out

Flow 1

Flow 2

IBM IoT

Time stamp

Edit function node

Delete

Cancel

Done

Properties

Name

Humidity

Setup

On Start

On Message

On Stop

```
1  
2 return msg;
```

Enabled

Node-RED interface showing a flow configuration and the 'Edit gauge node' dialog.

The flow configuration (Flow 1) includes:

- IBM IoT node
- Temperature function node
- Humidity function node
- Moisture function node
- Time stamp node
- http request node

The 'Edit gauge node' dialog shows the following properties:

- Group: [Home] Home
- Size: auto
- Type: Gauge
- Label: Temperature
- Value format: {{value}}
- Units: units
- Range: min 0, max 10
- Colour gradient: Green, Yellow, Red
- Sectors: 0, optional, optional, 10
- Class: Optional CSS class name(s) for widget
- Name:

Buttons: Delete, Cancel, Done

Node-RED interface showing a flow configuration.

The flow configuration (Flow 1) includes:

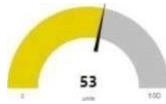
- IBM IoT node
- Temperature function node
- Humidity function node
- Moisture function node
- Time stamp node
- http request node
- msg.payload node
- Temperature gauge node
- Humidity gauge node
- Soil Moisture gauge node

The flow configuration (Flow 2) includes:

- Time stamp node
- http request node

Road Safety

Humidity



Rain



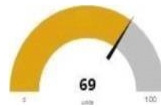
Temperature



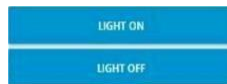


Road Safety

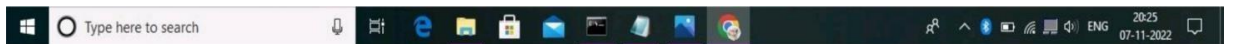
Humidity



Rain



Temperature



MIT app inverter to design the app:

