

Date	14-11-2022	
Team ID	PNT2022TMID38378	
Project name	Signs with smart connectivity for better road safety	
Maximum marks	20 marks	
Sprint-2	US-I	Configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform.
Sprint-2	US-2	Create a Node-RED service.

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

IBM Watson IoT Platform
412719106014@smartinternz.com
ID: fvh76j

Browse IBM Cloud Apps

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-fvh76j-j6zjbkmebe

Authentication Token pXEZxqoWhsWHXxyFVx

! 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 Visualization Application

Expires Never

1 Simulation running

US-2 Create a Node-red service

WhatsApp Your Platform temp IBM Service Details - IBM IBM Watson IoT Platform Node-RED

127.0.0.1:1880/#flow/ca7873236f11c525

Node-RED

nodes

Flow 1

IBM IoT
connected

debug 1

inject
debug
complete
catch
status
link in
link call
link out
comment

11/14/2022, 4:54:07 PM node: debug 1
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : Object
{ alert_distance: 5, temp: 81, hum: 91, North: 18, South: 82 ... }
11/14/2022, 4:54:07 PM node: msg payload
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : Object
{ alert_distance: 5, temp: 81, hum: 91, North: 18, South: 82 ... }
11/14/2022, 4:54:08 PM node: msg payload
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : number
81
11/14/2022, 4:54:09 PM node: msg payload
iot-2/type/alert_distance/id/12345/evt/event_1/fmt/json :
msg payload : undefined
undefined
11/14/2022, 4:54:10 PM node: msg payload

Fig: Monitoring the sensor values- temperature, humidity, rain.

The screenshot shows the Node-RED web interface in a browser. The main workspace displays a flow named 'Flow 1' with an 'IBM IoT' node connected to three function nodes: 'Temperature', 'Humidity', and 'Rain'. The 'Edit button node' panel is open, showing the configuration for a button node. The 'Group' is set to '[Smart Road Safety] [weather]road se'. The 'Label' is 'Temperature'. The 'When clicked, send:' section is empty. The 'debug' console on the right shows a series of messages, including a JSON object with sensor data:

```
{ alert_distance: 5, temp: 81, hum: 91, North: 18, South: 82 ... }
```

The screenshot shows the Node-RED web interface in a browser. The main workspace displays a flow named 'Flow 1' with an 'IBM IoT' node connected to three function nodes: 'Temperature', 'Humidity', and 'randomNumber'. The 'Edit chart node' panel is open, showing the configuration for a chart node. The 'Group' is set to '[Smart Road Safety] [weather]road se'. The 'Label' is 'chart'. The 'Type' is 'Line chart'. The 'X-axis' is set to 'last 5 minute' and '1000 points'. The 'X-axis Label' is 'HH:mm:ss'. The 'Y-axis' is set to 'min' and 'max'. The 'Legend' is set to 'None'. The 'debug' console on the right shows a series of messages, including a JSON object with sensor data:

```
{ alert_distance: 5, temp: 81, hum: 91, North: 18, South: 82 ... }
```

Node-RED

Deploy

filter nodes

Flow 1

network

mqtt in

mqtt out

http in

http response

http request

websocket in

websocket out

tcp in

tcp out

tcp request

udp in

udp out

input

mqtt in

output

mqtt out

mqtt in

connected

temperature

humidity

rain

debug 1

light on

light off

mag payload

mqtt out

connected

debug

11/7/2022, 8:21:45 PM node: debug 1

msg

{ temperature: 4, humidity: 65, rain: 47 }

11/7/2022, 8:21:45 PM node: debug 1

msg

{ temperature: 41, humidity: 44, rain: 97 }

11/7/2022, 8:21:48 PM node: debug 1

msg

{ temperature: 83, humidity: 96, rain: 5 }

11/7/2022, 8:21:51 PM node: debug 1

msg

{ temperature: 91, humidity: 91, rain: 11 }

11/7/2022, 8:21:54 PM node: debug 1

msg

{ temperature: 77, humidity: 35, rain: 83 }

11/7/2022, 8:21:57 PM node: debug 1

msg

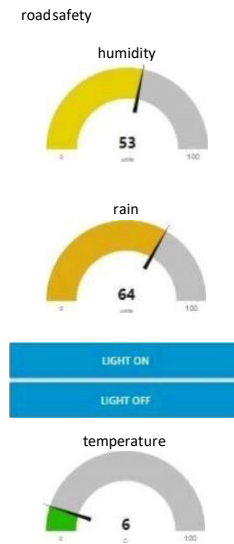
{ temperature: 2, humidity: 42, rain: 64 }

11/7/2022, 8:22:00 PM node: debug 1

msg

{ temperature: 8, humidity: 82, rain: 47 }

Fig: output from recent events



MIT APP INVENTOR TO DESIGN THE APP:

MIT App Inventor

Director Hal

Abetsonhasdedic

atedhiscareer

App Inventories Cloud-based: <https://wappinventor.mit.edu>

MIT App Inventor

Get Started

Welcome to App Inventor 2

1. To go directly to designing and budding apps With Inventor

App Inventor for
Android <

2.App Inventor

Computer
program

