

Project Development PhaseSprint II

Date	14 November 2022
Team ID	PNT2022TMID29156
Project Name	Signs with Smart Connectivity for better road safety

SPRINT TARGETS:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2	Safe Ride	USN-4	As a traveler , I should have a hustie free journey	20	Medium	Gokul Karvannan Kannan Sureshbabu

Wokwi Simulation: <https://wokwi.com/projects/308491660191188>

The screenshot displays the Wokwi web-based development environment. The left pane shows the Arduino IDE with a sketch named 'final_iot.ino'. The sketch includes libraries for WiFi, MQTT, and DHT, and contains code for connecting to IBM Watson IoT and publishing sensor data. The right pane shows a simulation of an ESP8266 module connected to a DHT22 sensor. The simulation output window shows the following log:

```
temp:37.40
humidity:86.00
Sending payload:
{"temp":37.40,"humidity":86.00,"North":0,"South":0,"East":0,"West":0}
Publish ok
Reconnecting client to psh4py.messaging.internetofthings.ibmcloud.com
.....
```

The bottom status bar indicates the system time as 08:23 on 13-11-2022 and the weather as 23°C Cloudy.

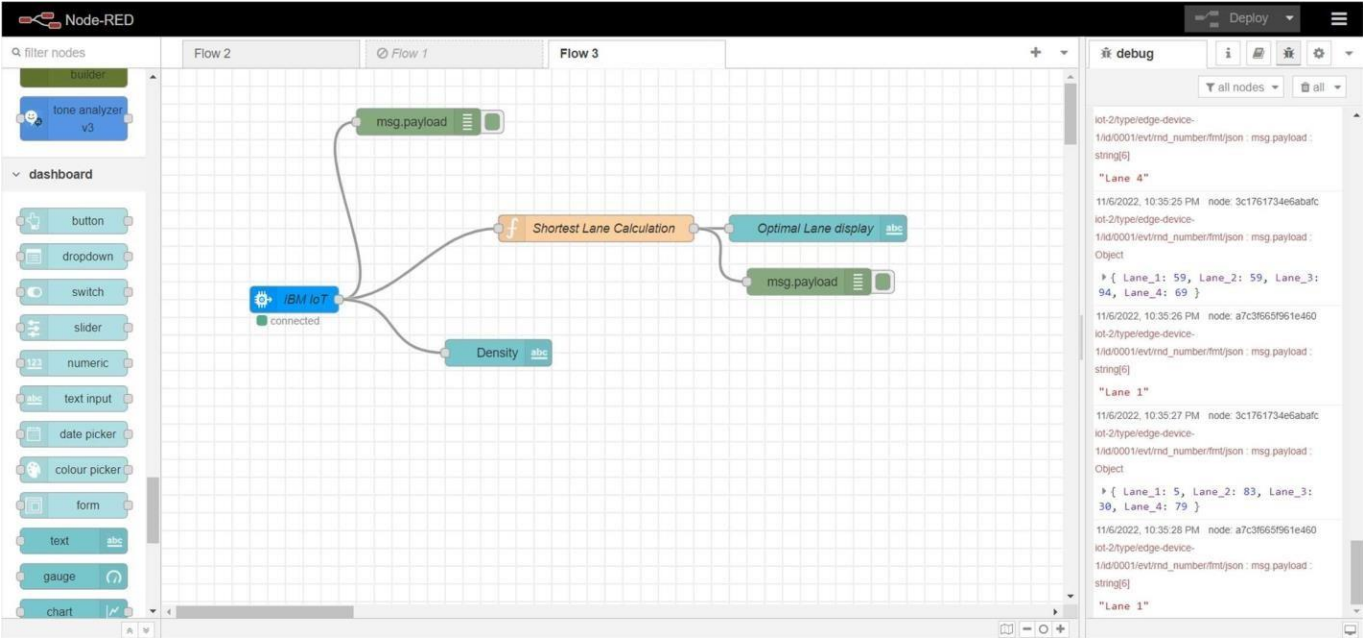
IoT Device – IoT Platform

The screenshot displays the 'Recent Events' tab for a device named 'edge-device-1' (ID: 0001). The interface includes a sidebar with navigation icons and a top navigation bar with tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A table lists the recent events, showing a live stream of data. The events are categorized by 'Event' (all are 'rnd_number'), 'Value' (JSON strings), 'Format' (all are 'json'), and 'Last Received' (all are 'a few seconds ago').

Event	Value	Format	Last Received
rnd_number	{"Lane_1":5,"Lane_2":83,"Lane_3":30,"Lane_4":...	json	a few seconds ago
rnd_number	{"Lane_1":59,"Lane_2":59,"Lane_3":94,"Lane_4":...	json	a few seconds ago
rnd_number	{"Lane_1":93,"Lane_2":88,"Lane_3":49,"Lane_4":...	json	a few seconds ago
rnd_number	{"Lane_1":2,"Lane_2":61,"Lane_3":21,"Lane_4":...	json	a few seconds ago
rnd_number	{"Lane_1":70,"Lane_2":11,"Lane_3":69,"Lane_4":...	json	a few seconds ago

1 Simulation running

Node Red



Edit function node

Delete

Cancel

Done

Properties

Name

Shortest Lane Calculation



Setup

On Start

On Message

On Stop

```
1 var l1 = msg.payload.Lane_1;
2 var l2 = msg.payload.Lane_2;
3 var l3 = msg.payload.Lane_3;
4 var l4 = msg.payload.Lane_4;
5
6 mini = Math.min(l1,l2,l3,l4);
7
8 res = "-";
9
10 switch(mini) {
11     case l1: res = "Lane 1"; break;
12     case l2: res = "Lane 2"; break;
13     case l3: res = "Lane 3"; break;
14     case l4: res = "Lane 4"; break;
15 }
16
17 msg.payload = res;
18
19 return msg;
```

Node Red Web UI

