

Project Development Phase Sprint II

Date	13 November 2022
Team ID	PNT2022TMID42985
Project Name	Signs with Smart Connectivity for better road safety

SPRINT TARGETS:

Sprint	Functional Requirement (Epic)	UserStory Number	UserStory / Task	Story Points	Priority	Team Members
Sprint-2	Safe Ride	USN-4	As a traveler, I should have a hustie free journey	20	Medium	Arul Sunder Vasanth Praveen Akshay

Wokwi Simulation: <https://wokwi.com/projects/348178332935782994>

The screenshot displays the Wokwi web-based development environment. The left pane shows the Arduino IDE with a sketch named 'final_iot.ino'. The code includes libraries for WiFi, MQTT, and DHT, and defines constants for the DHT sensor pin and type. It also includes credentials for an IBM Watson IoT Platform account, such as the organization ID, device type, device ID, and token. The sketch sets up an MQTT client and a callback function to handle incoming data.

The right pane shows the 'Simulation' window, which includes a visual representation of the ESP8266 module and its connections. Below the visual, a log window displays the simulation output:

```
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 of the screen shows a Windows taskbar with various application icons and system information, including the date and time (08:23, 13-11-2022).

IoT Device – IoT Platform

Search

Browse

Action

Device Types

Interfaces

Add Device +

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
0001	Disconnected	edge-device-1	Device	Nov 5, 2022 8:56 PM	

Identity

Device Information

Recent Events

State

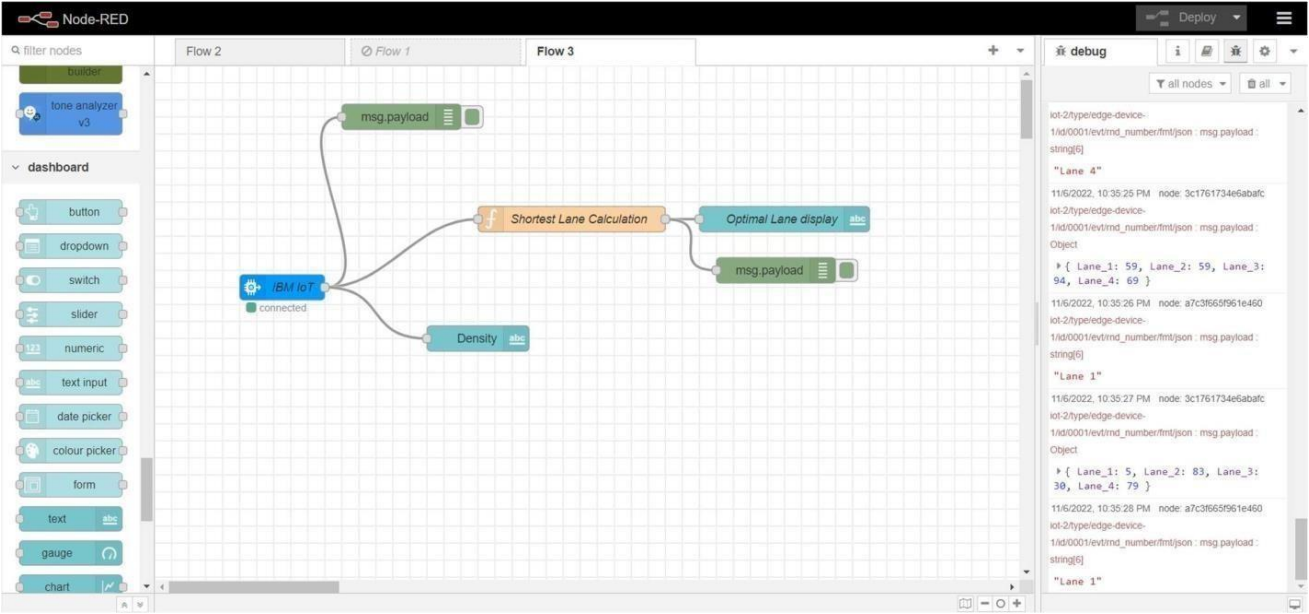
Logs

The recent events listed show the live stream of data that is coming and going from this device.

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;
```