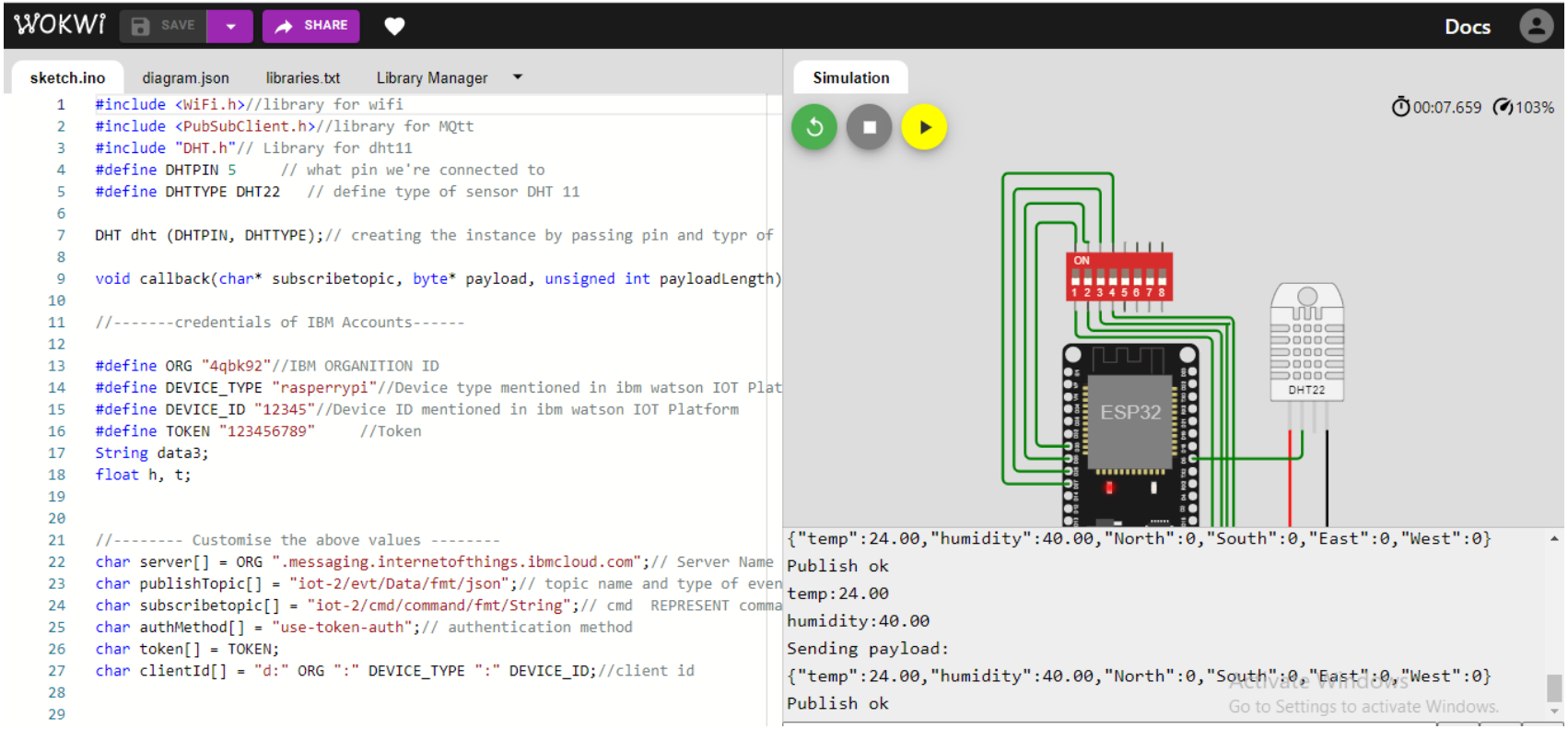
Project Development Phase
Sprint III

Date	13 November 2022
Team ID	PNT2022TMID21418
Project Name	Signs with Smart Connectivity for better road safety

Sprint Targets :

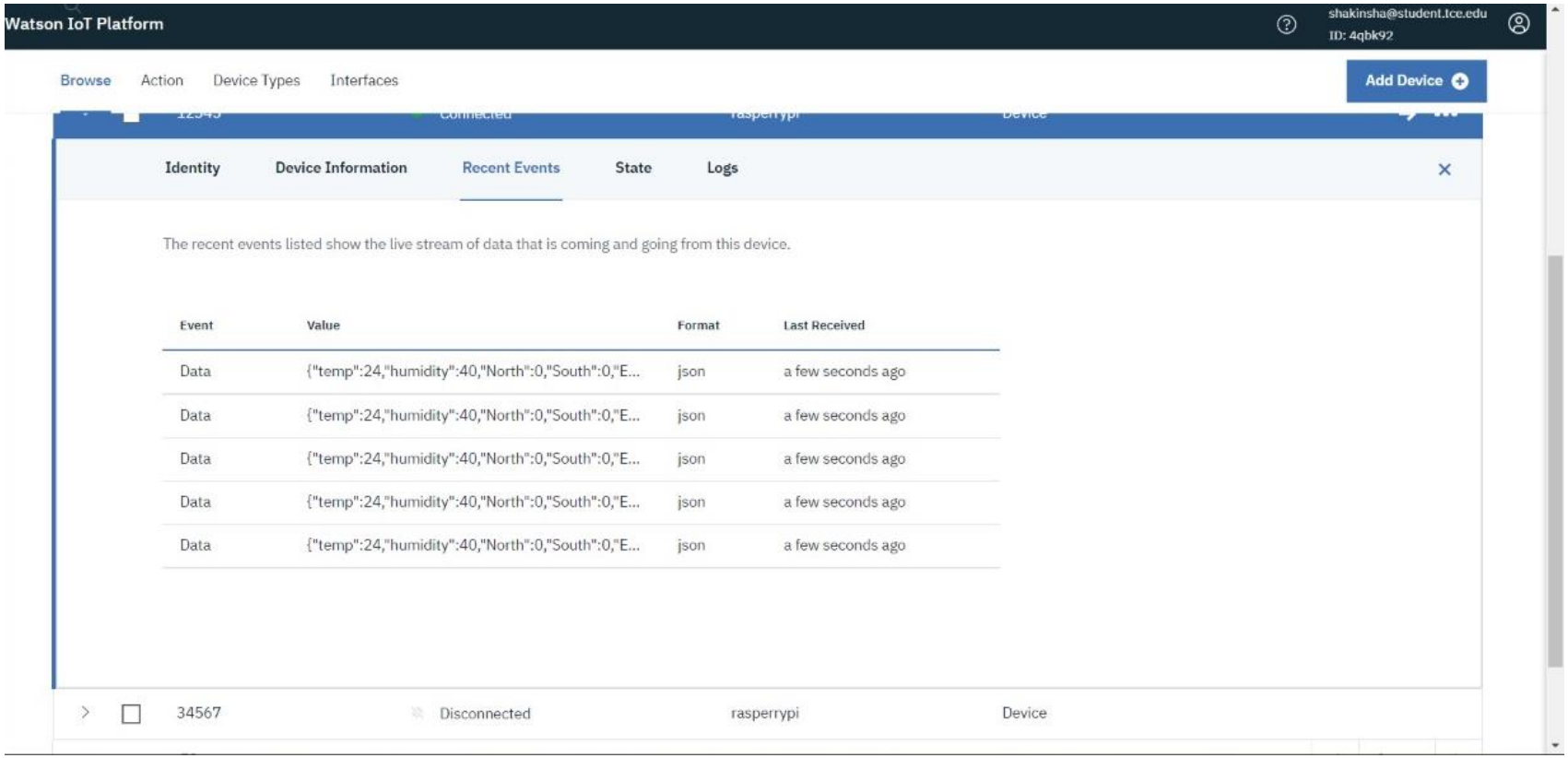
Sprint	Functional Requirement (Epic)	UserStory Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Login	USN-5	As an administrator , I should have an account of the website	7	Low	Thillai Nivetha Shakinsha Priyadharshini Dhanushya
Sprint-3	Dashboard	USN-6SSS	As an admin, I should be ableto monitor and add sign nodes	13	Medium	Thillai Nivetha Shakinsha Priyadharshini Dhanushya

Wokwi Simulation: https://wokwi.com/projects/348578517287436883

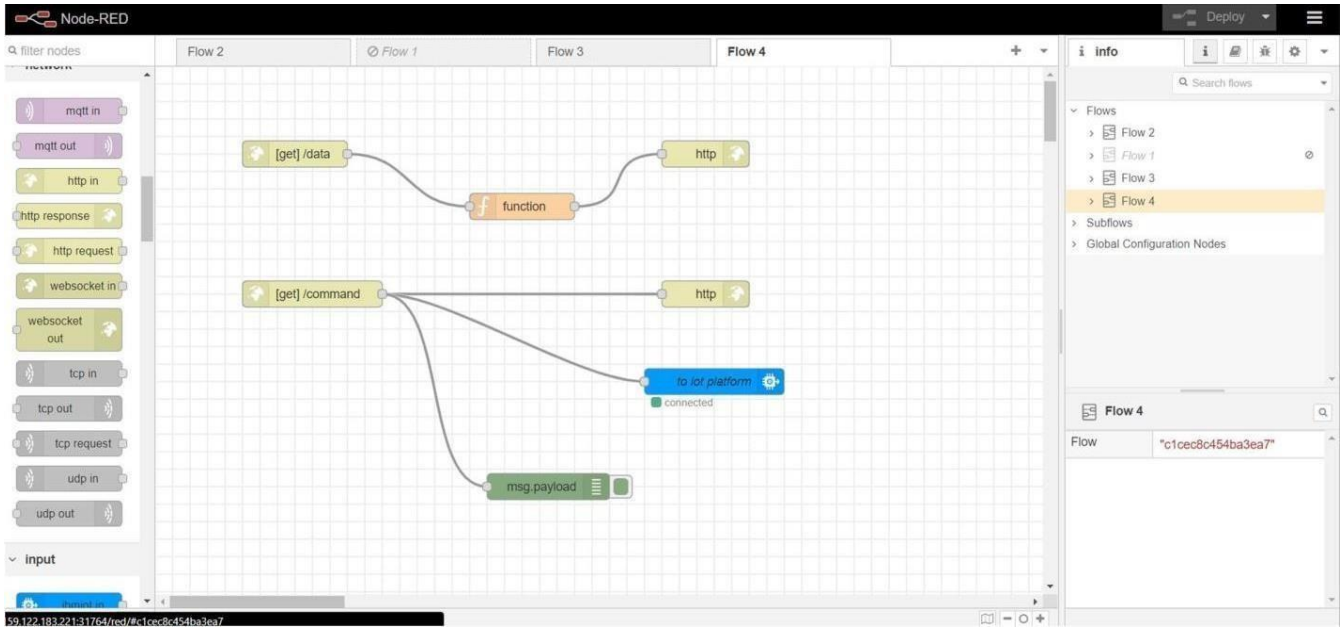


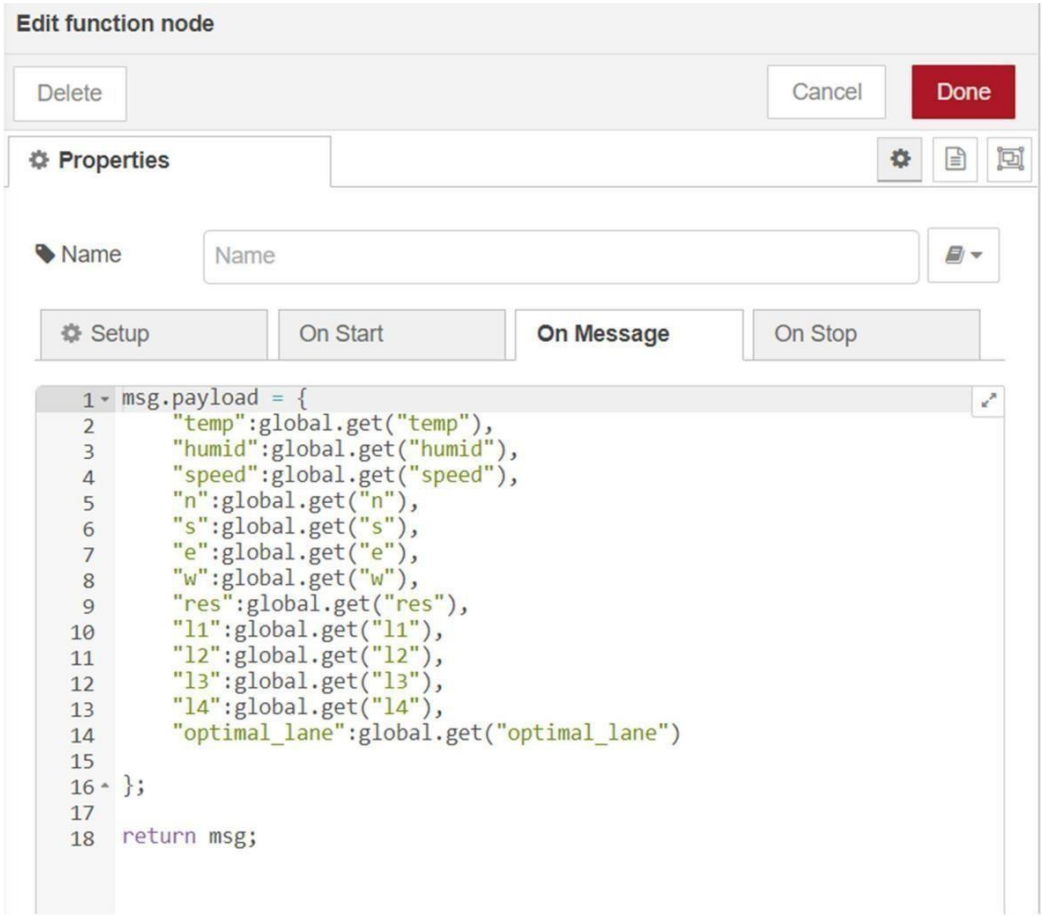

```
#include <WiFi.h>//library for wifi
#include <PubSubClient.h>//library for MQtt
#include "DHT.h"// Library for dht11
#define DHTPIN 5     // what pin we're connected to
#define DHTTYPE DHT22   // define type of sensor DHT 11

DHT dht (DHTPIN, DHTTYPE);// creating the instance by passing pin and typr of

void callback(char* subscribetopic, byte* payload, unsigned int payloadLength)

//-------credentials of IBM Accounts------

#define ORG "4qbk92"//IBM ORGANITION ID
#define DEVICE_TYPE "rasperrypi"//Device type mentioned in ibm watson IOT Plat
#define DEVICE_ID "12345"//Device ID mentioned in ibm watson IOT Platform
#define TOKEN "123456789"      //Token
String data3;
float h, t;


//-------- Customise the above values --------
char server[] = ORG ".messaging.internetofthings.ibmcloud.com";// Server Name
char publishTopic[] = "iot-2/evt/Data/fmt/json";// topic name and type of even
char subscribetopic[] = "iot-2/cmd/command/fmt/String";// cmd  REPRESENT comma
char authMethod[] = "use-token-auth";// authentication method
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id
```

IoT Device – IoT Platform



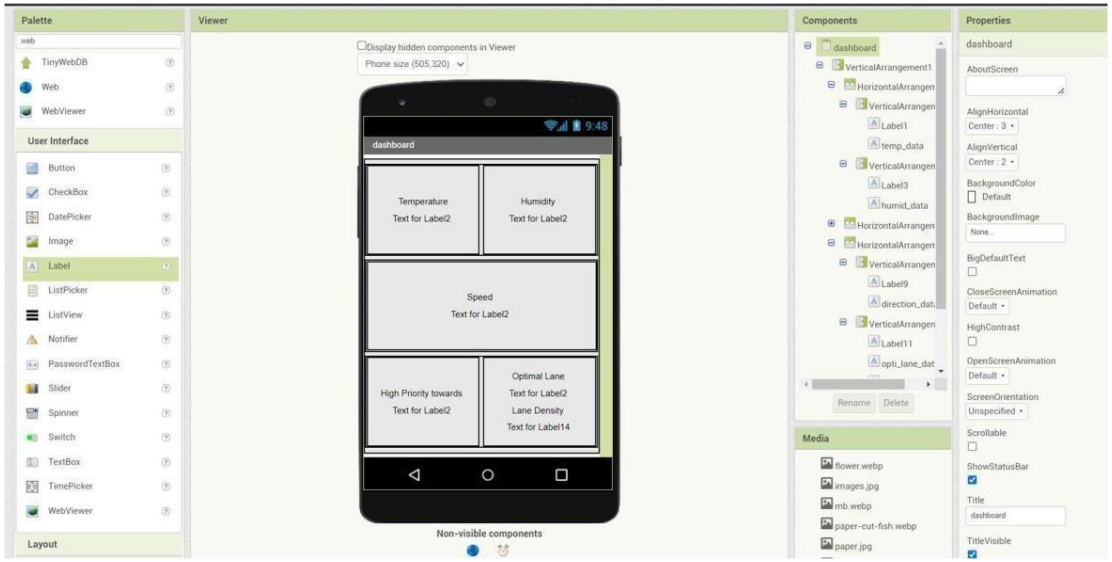
Node Red – Connect with MIT AppInventor



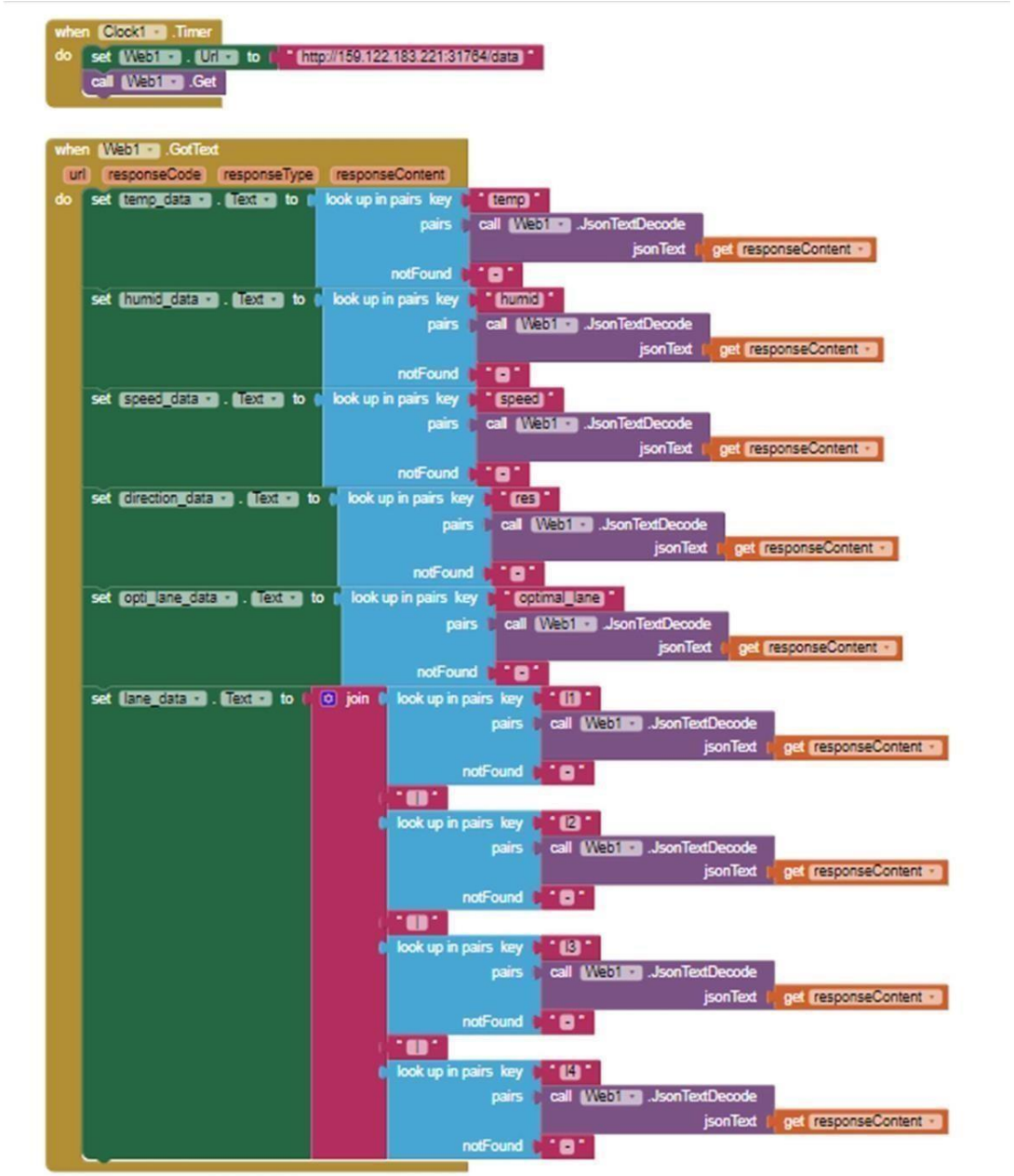

Edit function node
Delete
Cancel
Done
Properties
Name
Name
Setup
On Start
On Message
On Stop
msg.payload = {
"temp":global.get("temp"),
"humid":global.get("humid"),
"speed":global.get("speed"),
"n":global.get("n"),
"s":global.get("s"),
"e":global.get("e"),
"w":global.get("w"),
"res":global.get("res"),
"l1":global.get("l1"),
"l2":global.get("l2"),
"l3":global.get("l3"),
"l4":global.get("l4"),
"optimal_lane":global.get("optimal_lane")
};
return msg;

Output from Node red:

MIT App Inventor UI design:



MIT App Inventor Backend design:



Sprint 3 delivery:

(OUTPUT) Display from MIT App: