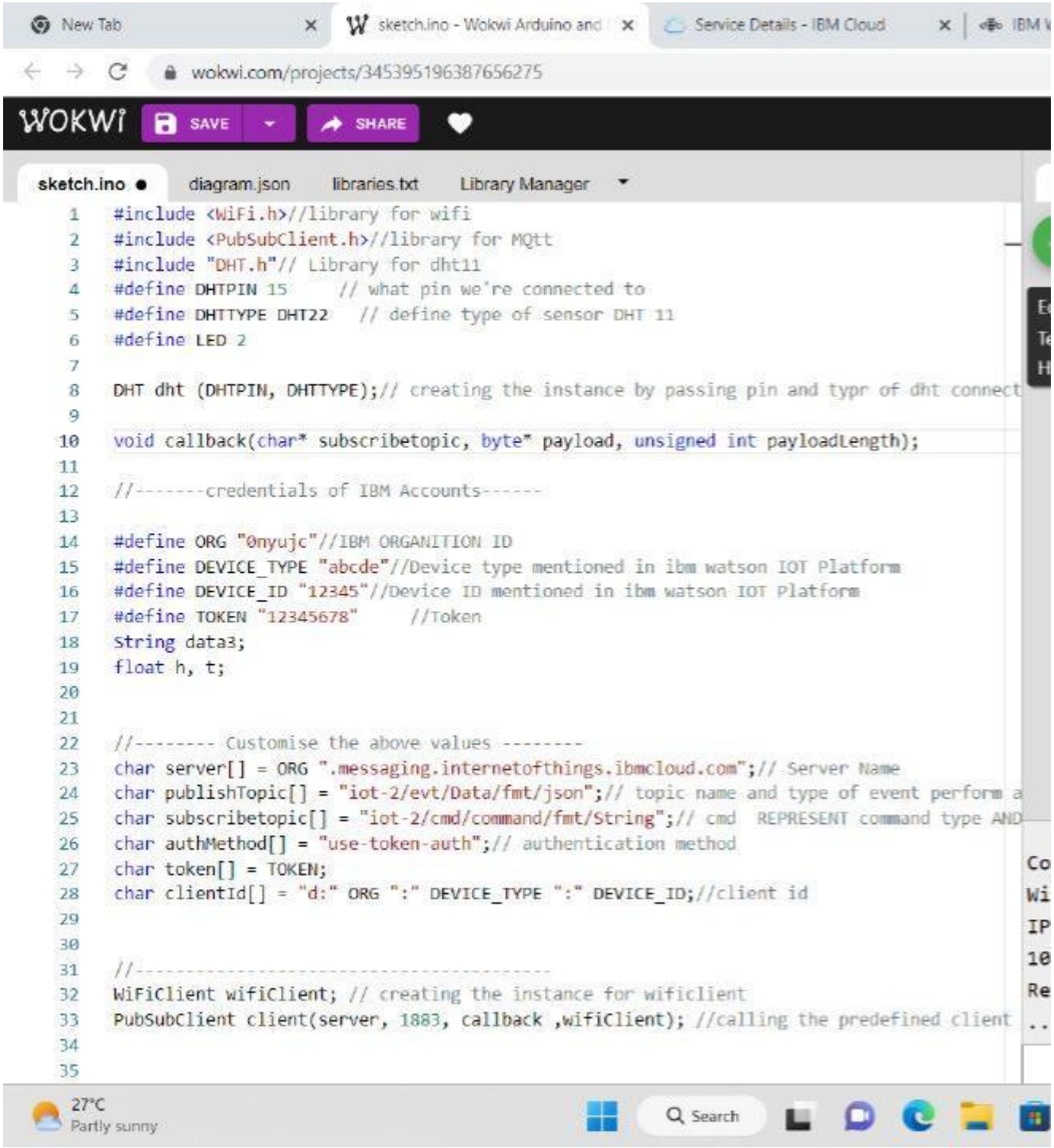
Project Development Phase Sprint III

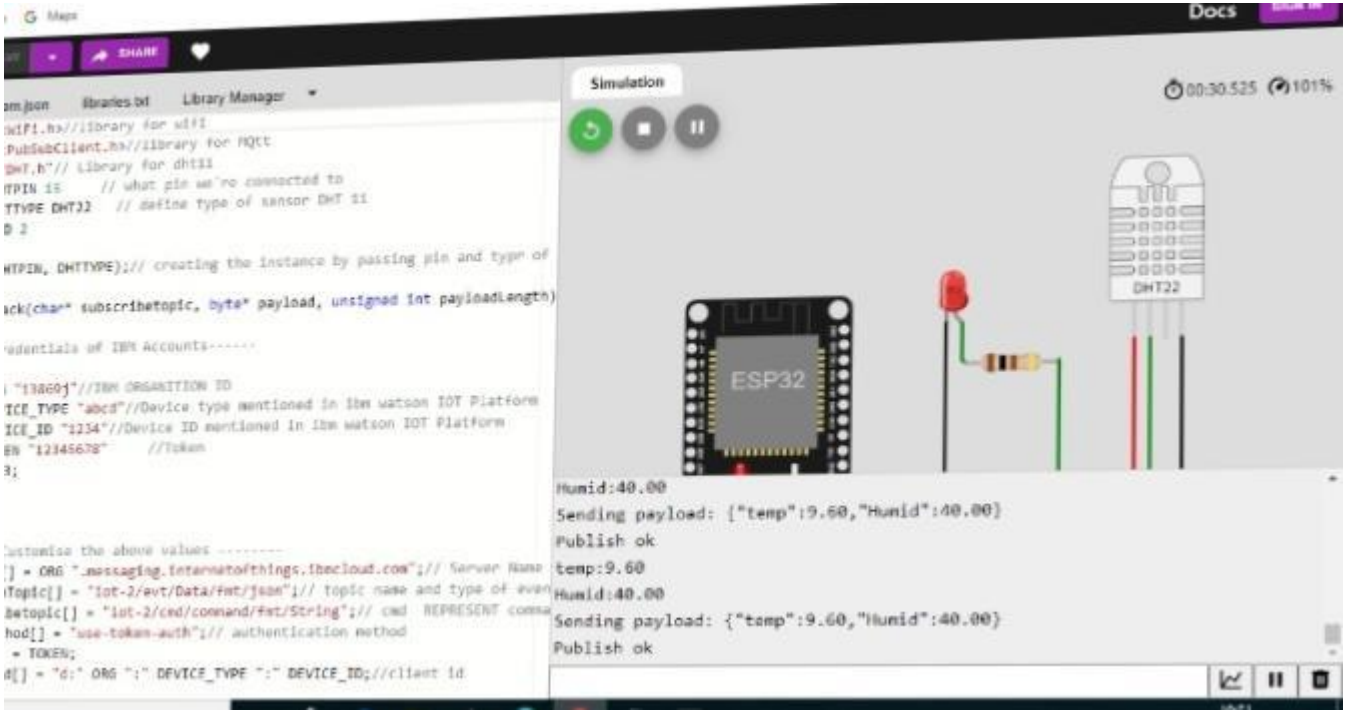
Date	13 November 2022
Team ID	PNT2022TMID47661
Project Name	Signs with Smart Connectivity for better road safety

Sprint Targets :

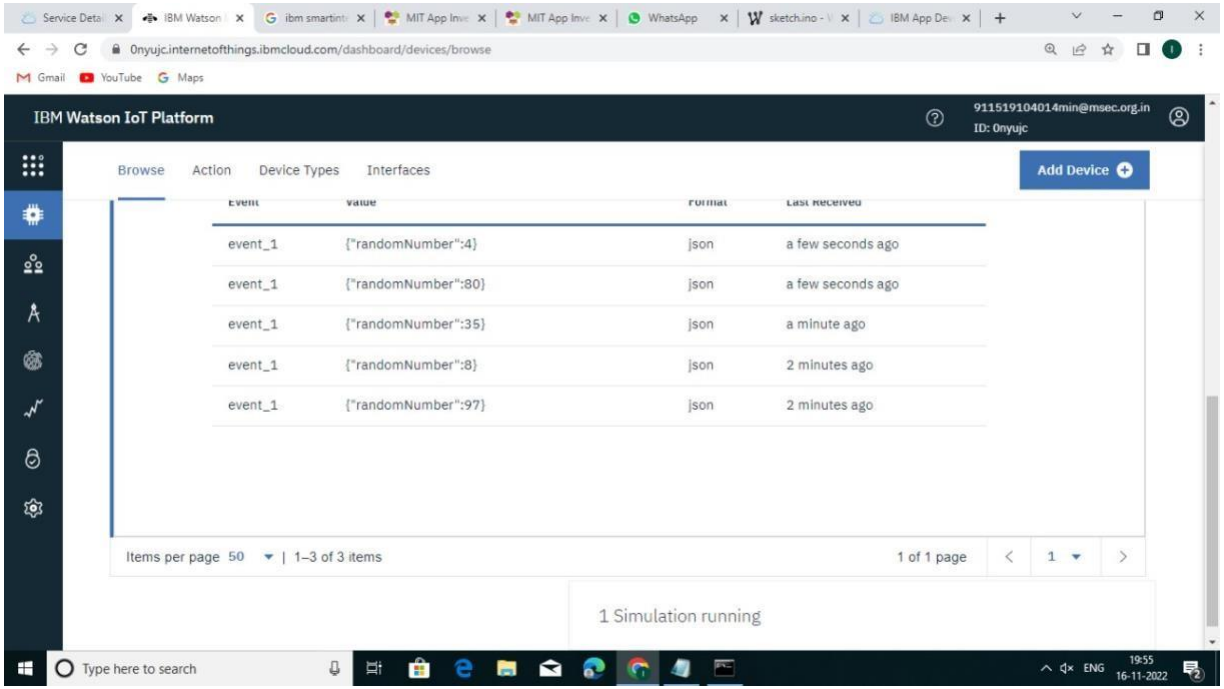
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Login	USN-5	As an administrator , I should have an account of the website	7	Low	Issathu nisha Sanaa Suhaina Fahima
Sprint-3	Dashboard	USN-6SSS	As an admin , I should be able to monitor and add sign nodes	13	Medium	Issathu nisha Sanaa Suhaina Fahima

Wokwi

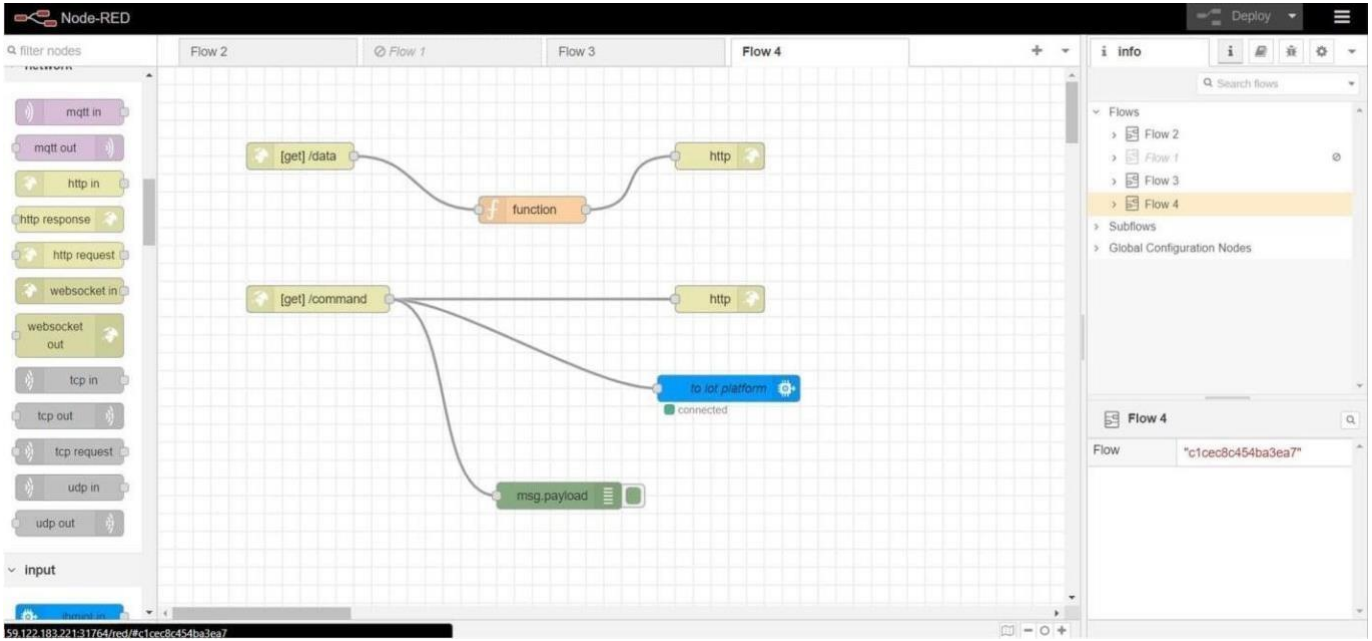

New Tab
sketch.ino - Wokwi Arduino and
Service Details - IBM Cloud
wokwi.com/projects/345395196387656275
WOKWI
SAVE
SHARE
sketch.ino
diagram.json
libraries.txt
Library Manager
#include <WiFi.h>//library for wifi
#include <PubSubClient.h>//library for MQtt
#include "DHT.h"// Library for dht11
#define DHTPIN 15 // what pin we're connected to
#define DHTTYPE DHT22 // define type of sensor DHT 11
#define LED 2
DHT dht (DHTPIN, DHTTYPE);// creating the instance by passing pin and typr of dht connect
void callback(char* subscribetopic, byte* payload, unsigned int payloadLength);
//-------credentials of IBM Accounts------
#define ORG "0nyujc"//IBM ORGANITION ID
#define DEVICE_TYPE "abcde"//Device type mentioned in ibm watson IOT Platform
#define DEVICE_ID "12345"//Device ID mentioned in ibm watson IOT Platform
#define TOKEN "12345678" //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 event perform a
char subscribetopic[] = "iot-2/cmd/command/fmt/String";// cmd REPRESENT command type AND
char authMethod[] = "use-token-auth";// authentication method
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id
//---
WiFiClient wifiClient; // creating the instance for wificlient
PubSubClient client(server, 1883, callback ,wifiClient); //calling the predefined client
27°C
Partly sunny
Search

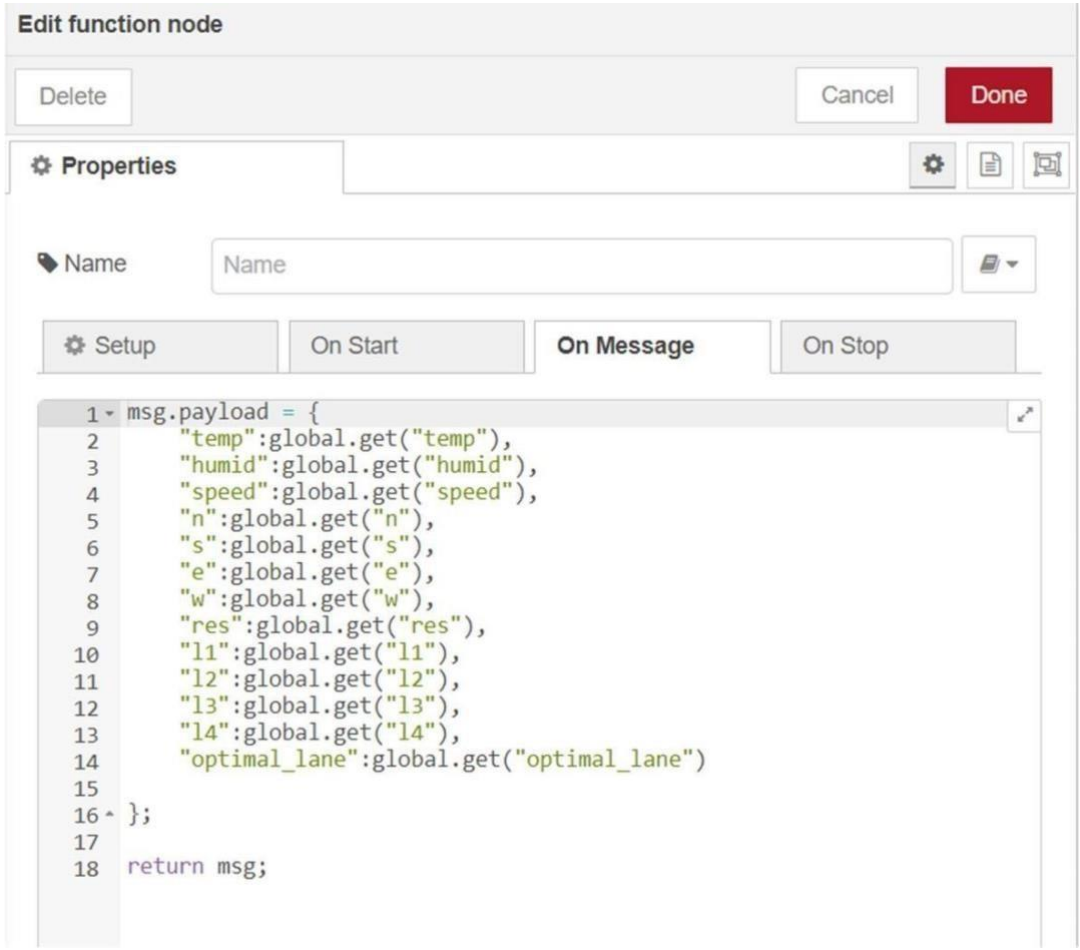


IoT Device – IoT Platform



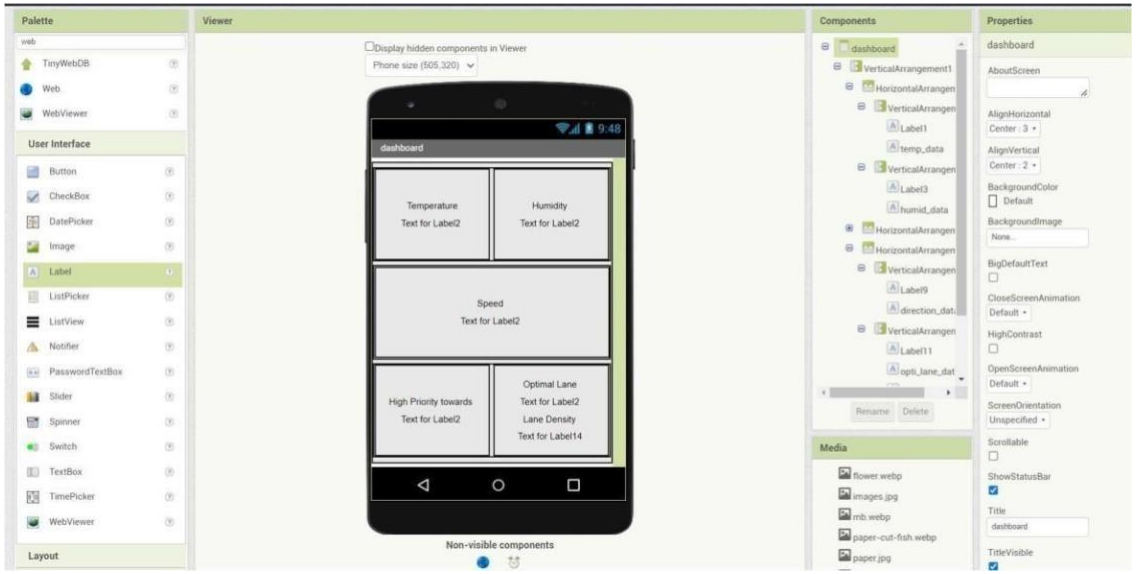
Node Red – Connect with MIT AppInventor


Node-RED
Deploy
filter nodes
Flow 2
Flow 1
Flow 3
Flow 4
info
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
[get] /data
function
http
[get] /command
http
to iot platform
connected
msg.payload
Search flows
Flows
Flow 2
Flow 1
Flow 3
Flow 4
Subflows
Global Configuration Nodes
Flow 4
Flow
"c1cec8c454ba3ea7"
59.122.183.221:31764/red/#c1cec8c454ba3ea7

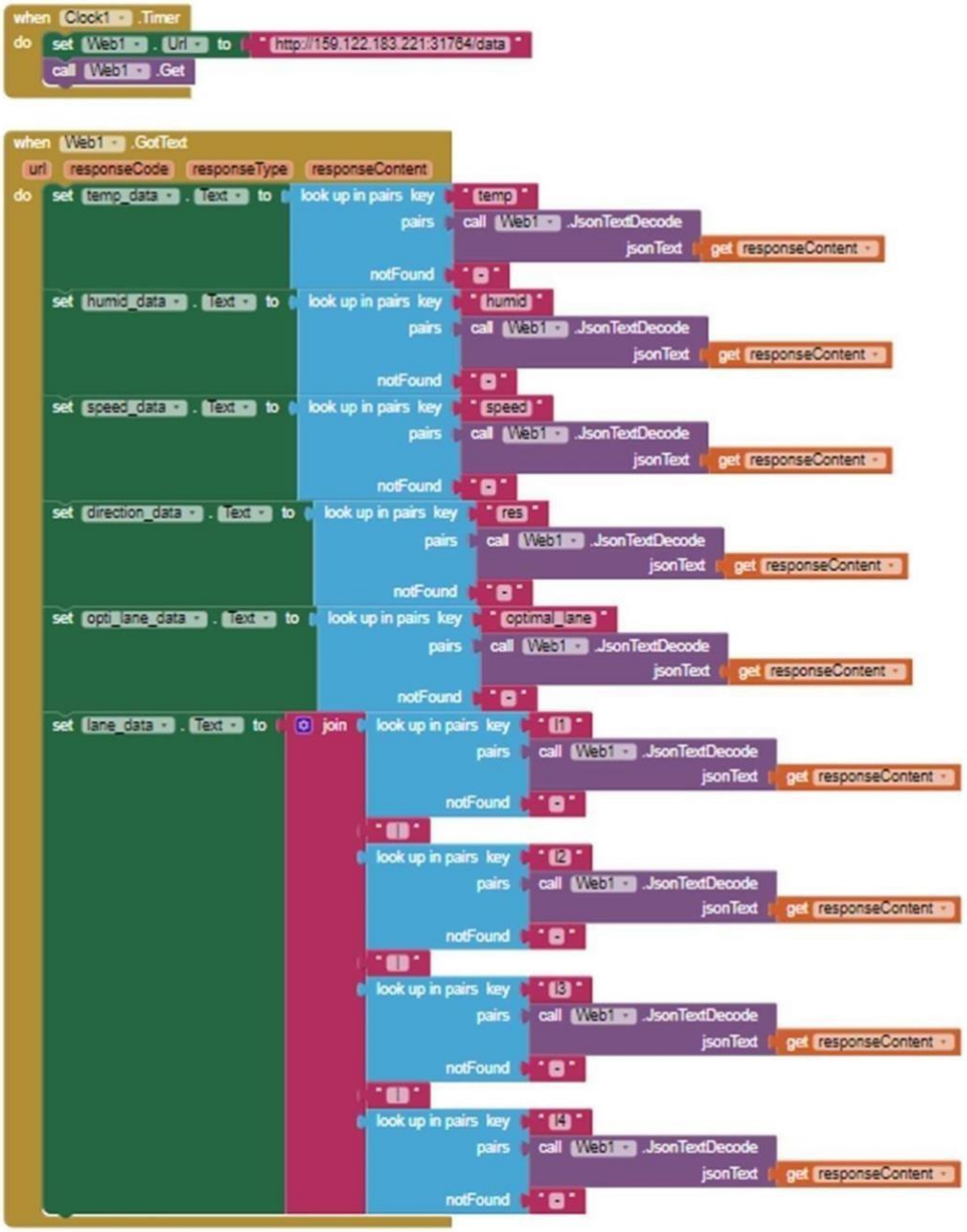


Output from Node red:

MIT App Inventor UI design:



MIT App Inventor Backend design:



Sprint 3 delivery:

(OUTPUT) Display from MIT App: