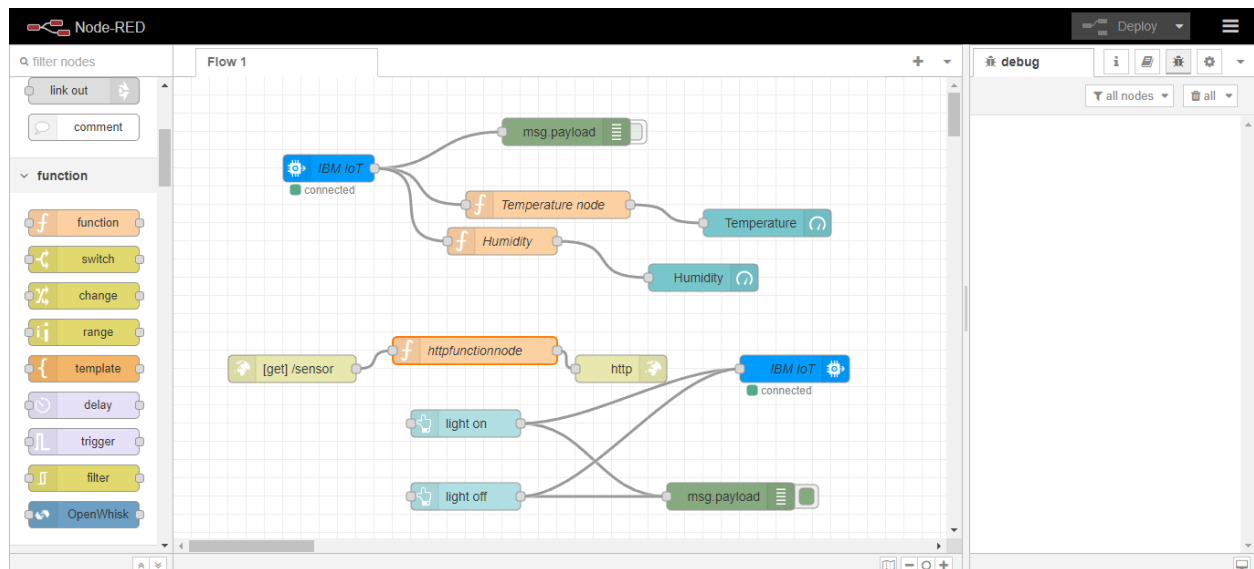


Delivery of Sprint-3

Title	Smart waste management for metropolitan cities
Team id	PNT2022TMID34106

1. Node-RED Connection setup for data transmission from IBM Watson IOT platform to Node-RED dashboard.



2. Simulate Wokwi connection to transmit data from wokwi account to IBM Watson IOT platform and then to Node Red dashboard.

WOKWI SAVE SHARE sketch.ino Docs

sketch.ino diagram.json libraries.txt Library Manager

```

1 #include <WiFi.h>
2 #include <PubSubClient.h>
3 WiFiClient wifiClient;
4 String data3;
5 #define ORG "d50xwa"
6 #define DEVICE_TYPE "ibm-device"
7 #define DEVICE_ID "ibmid"
8 #define TOKEN "vtn5w?ts?vX-vn8Z8"
9 #define speed 0.034
10 #define led 14
11 char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
12 char publishTopic[] = "iot-2/evt/data/fmt/json";
13 char topic[] = "iot-2/cmd/led/fmt/String";
14 char authMethod[] = "use-token-auth";
15 char token[] = TOKEN;
16 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;
17 PubSubClient client(server, 1883, wifiClient);
18 const int trigpin=5;
19 const int echopin=18;
20 String command;
21 String data="";
22 long duration;
23 float dist;
24 void setup()
25 {
26   Serial.begin(115200);
27   pinMode(led, OUTPUT);
28   pinMode(trigpin, OUTPUT);
29   pinMode(echopin, INPUT);

```

Simulation

00:04.899 59%

ESP32 HC-SR04

Publish OK

Sending payload: {"Distance":174.95}

Publish OK

Sending payload: {"Distance":174.95}

Publish OK

3. Data transfer to Watson IOT platform.

IBM Watson IoT Platform

Browse Action Device Types Interfaces

All Devices Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By	Device Class	Firmware Version
ibmid	Disconnected	ibmdevice	Device	Nov 6, 2022 12:32 PM		960219106034@emartintenz.com		

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
event_1	("Temperature":52,"Humidity":17)	json	a few seconds ago
event_1	("Temperature":5,"Humidity":45)	json	a few seconds ago
event_1	("Temperature":77,"Humidity":90)	json	a few seconds ago
event_1	("Temperature":22,"Humidity":99)	json	a few seconds ago
event_1	("Temperature":49,"Humidity":75)	json	a few seconds ago

1 Simulation running

4. Data transfer from IBM Watson IOT platform and wokwi to Node red

Recent Events

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

Event	Value	Format	Last Received
Data	{"Normal Distance":92.99}	json	a few seconds ago
Data	{"Normal Distance":92.99}	json	a few seconds ago
Data	{"Normal Distance":92.99}	json	a few seconds ago
Data	{"Normal Distance":92.99}	json	a few seconds ago
Data	{"Normal Distance":92.99}	json	a few seconds ago