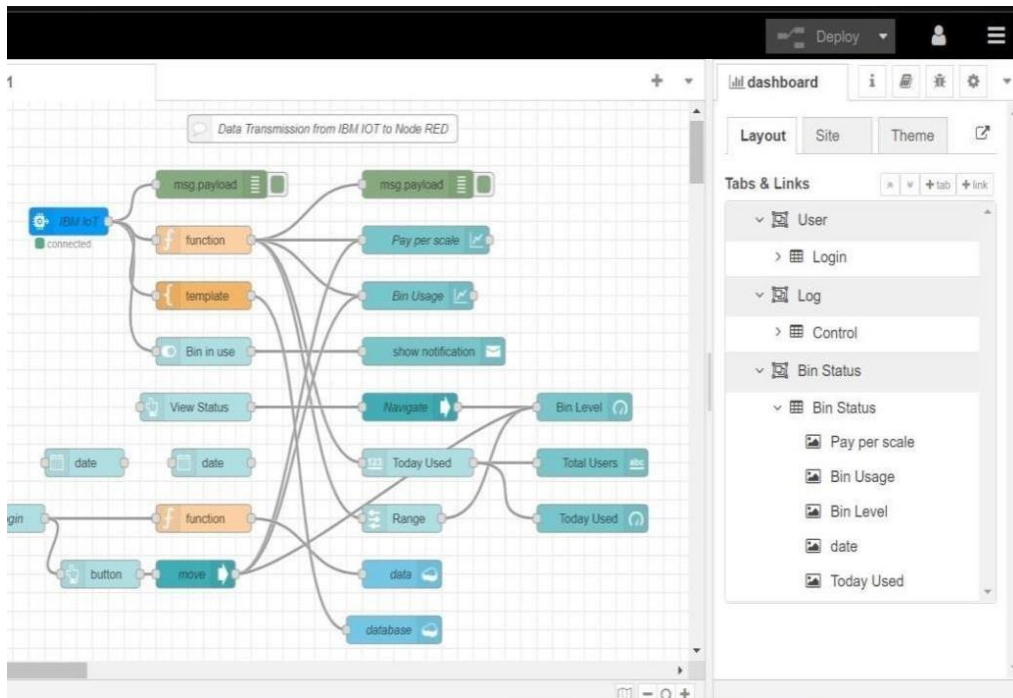


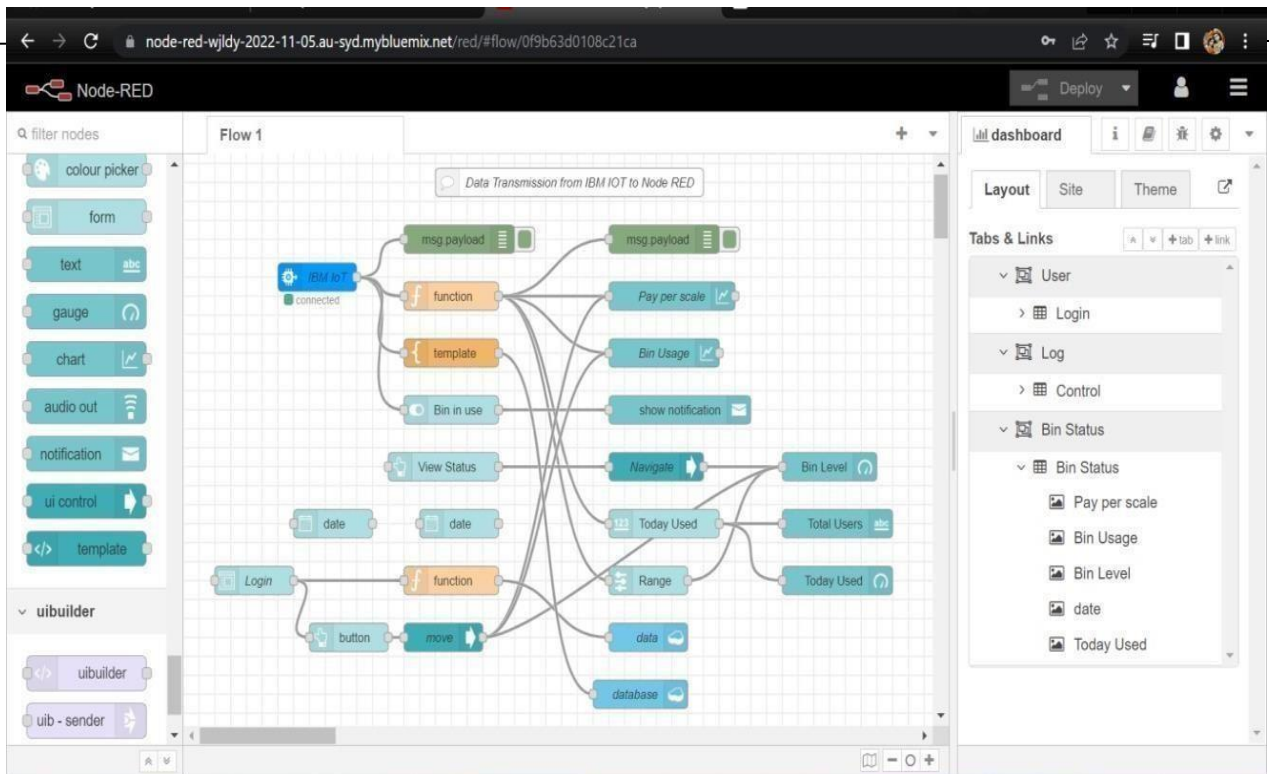
WebUIDesignandDeploy

Date	11November2022
TeamID	PNT2022TMID12601
ProjectName	Smart Waste Management for Metropolitan Cities - IOT

1.Node-

REDConnectionsetupfordatatransmissionfromIBMWatsonIoTplatformtoNode-REDdashboard.





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

2. Data transfer to Watson IoT platform.

esp32-blink.ino

```

177
178
179
180
181
182   if(cm <= 25)
183   {
184     digitalWrite(21,HIGH);
185     String payload = "{\"High_Alert\":\"";
186     payload += cm;
187     payload += "\"}";
188     Serial.print("\n");
189     Serial.print("Sending payload: ");
190     Serial.println(payload);
191
192     if (client.publish(publishTopic, (char*) payload.c_str()))
193     {
194       Serial.println("Publish OK");
195     }
196   }
197   if(cm <= 50)
198   {
199     digitalWrite(22,HIGH);
200     String payload = "{\"Warning\":\"";
201     payload += cm;
202     payload += "\"}";
203     Serial.print("\n");

```

Simulation

00:35.846 99%

PIR Motion Sensor

Simulate motion

Sending distance: 26.94

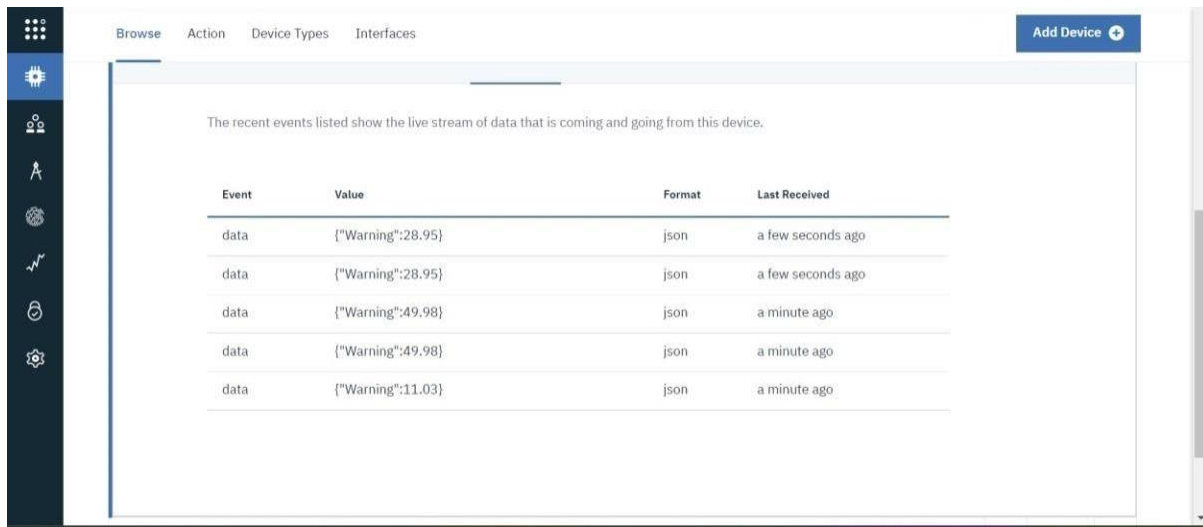
Publish OK

Motion Detected

Lid Opened

High Alert!!!,Trash bin is about to be full

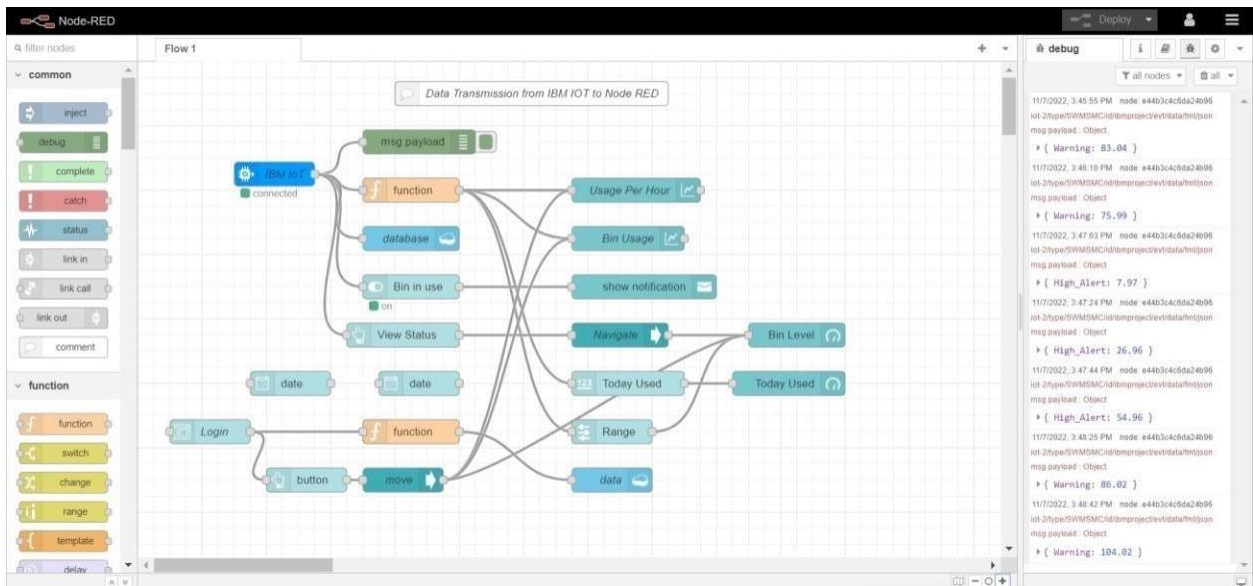
Lid Closed



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

Event	Value	Format	Last Received
data	{"Warning":28.95}	json	a few seconds ago
data	{"Warning":28.95}	json	a few seconds ago
data	{"Warning":49.98}	json	a minute ago
data	{"Warning":49.98}	json	a minute ago
data	{"Warning":11.03}	json	a minute ago

3. DatatransferfromIBMWatsonIOTplatformand wokwitoNode red.



5.StoringdatabaseinIBMcloudantDB.

↔

Databases

Database name

Create Database

{ } JSON

Your Databases

Name	Size	# of Docs	Partitioned	Actions
login_credentials	13.7 KB	111	No	
noderedwjldy20221105	37.4 KB	4	No	
sample	59.4 KB	351	No	
sensor_data	15.7 KB	90	No	

Showing 1~4 of 4 databases. Databases per page 20 < 1 >

Log Out

↔

< sensor_data

Document ID

Options

{ } JSON

All Documents

Query

Permissions

Changes

Design Documents

Table

Metadata

{ } JSON

Create Document

	id	key	value
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df...
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-d26c5b40891e13c6c...
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df...
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-f96eb0460bc16cfab0...
<input type="checkbox"/>	1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-7226f08794cd47b7c...
<input type="checkbox"/>	1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-1bbdd9a985bd56cf9...
<input type="checkbox"/>	20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-7226f08794cd47b7c...
<input type="checkbox"/>	20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-3ad288ecad57f039e...
<input type="checkbox"/>	20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-1bbdd9a985bd56cf9...
<input type="checkbox"/>	298ed6fbd9b3b815f5ac7c061e...	298ed6fbd9b3b815f5ac7c061e...	{ "rev": "1-4e720f6e5307a1b9...

Showing document 1 - 20. Documents per page: 20 < >

Log Out

6. Data is stored in JSON format

↔

sensor_data > 0198213c192cb2c244cc2433f1802b91

{ } JSON

📅

🔔

✓ Save Changes

Cancel

📎 Upload Attachment

🔄 Clone Document

🗑 Delete

1

2

3

4

5

6

7

8

9

10

11

12

```
1 {
2   "_id": "0198213c192cb2c244cc2433f1802b91",
3   "_rev": "1-cde2dd17c519394dfeb774738c495f8b",
4   "topic": "iot-2/type/SWMSMC/id/ibmproject/evt/data/fmt/json",
5   "payload": {
6     "Warning!!": "244.971left"
7   },
8   "deviceId": "ibmproject",
9   "deviceType": "SWMSMC",
10  "eventType": "data",
11  "format": "json"
12 }
```

Log Out


7. WebUI

☰ Log

Log


Bin Status


Control

Bin in use 

Range

Today Used ▼ 0 ▲

date  06/11/2022 ▼

 VIEW STATUS

Log

Control

Bin in use

Range

Today Used

0

date

06/11/2022

VIEW STATUS

