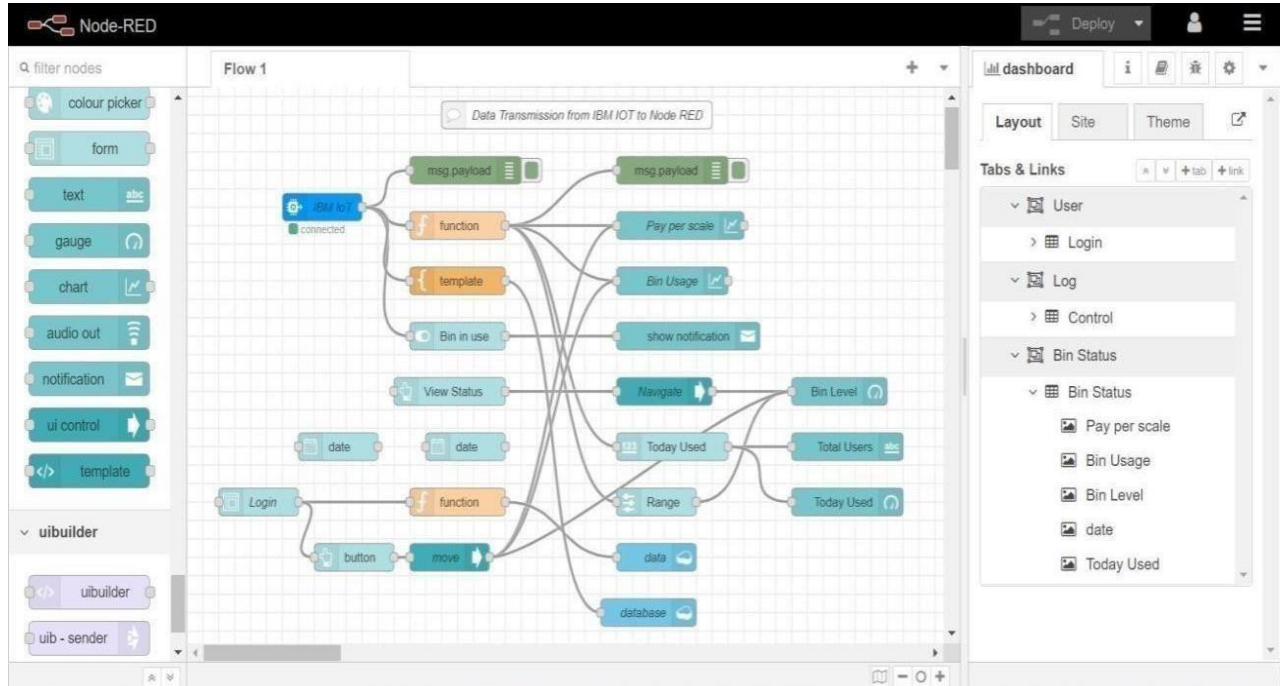


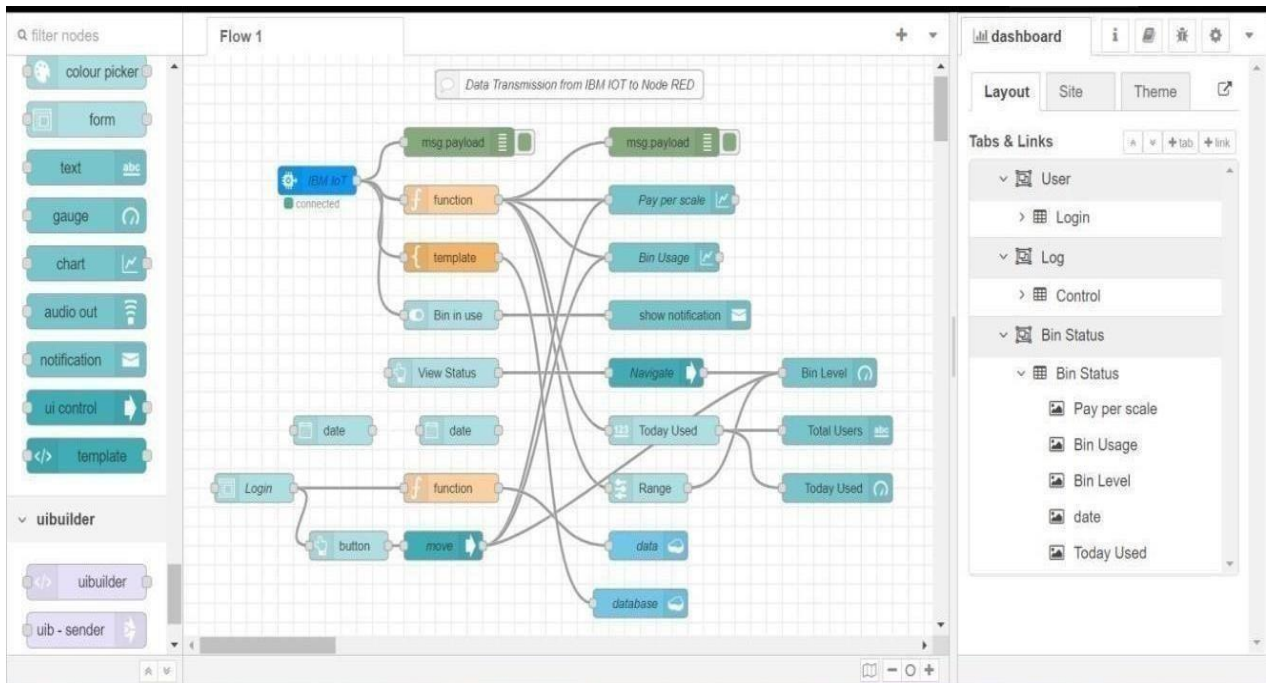
Delivery of Sprint – 4

Web UI Design and Deploy

| | |
|---------------|---|
| Date | 16 November 2022 |
| Team ID | PNT2022TMID26515 |
| Project Name | Smart Waste Management System for Metropolitan cities |
| Maximum Marks | 4 Marks |

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





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

2. Data transfer to Watson IOT platform.

esp32-blink.ino

diagram.json

libraries.txt

Library Manager

```

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())) // if
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

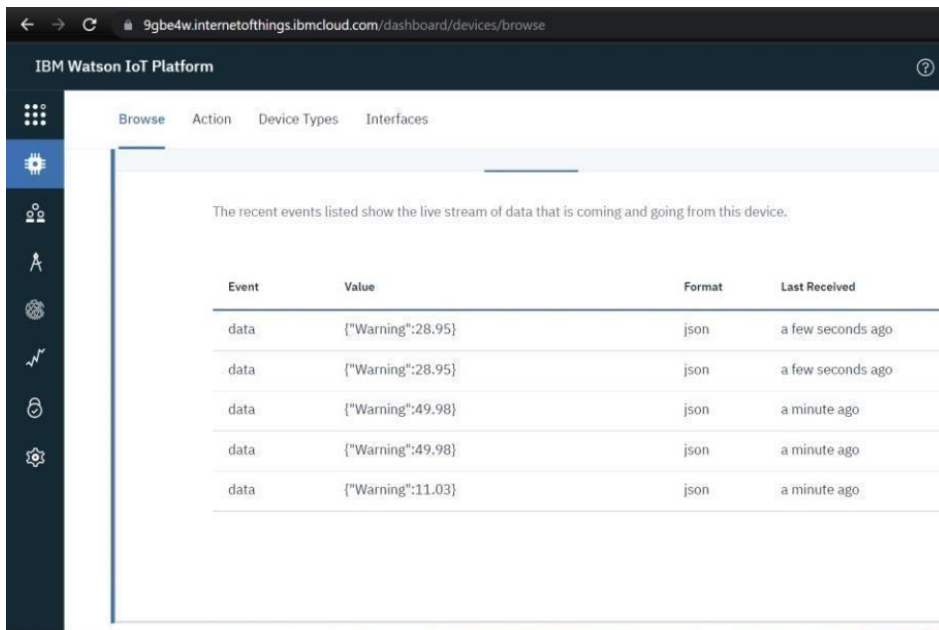
Publish OK

Motion Detected

Lid Opened

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

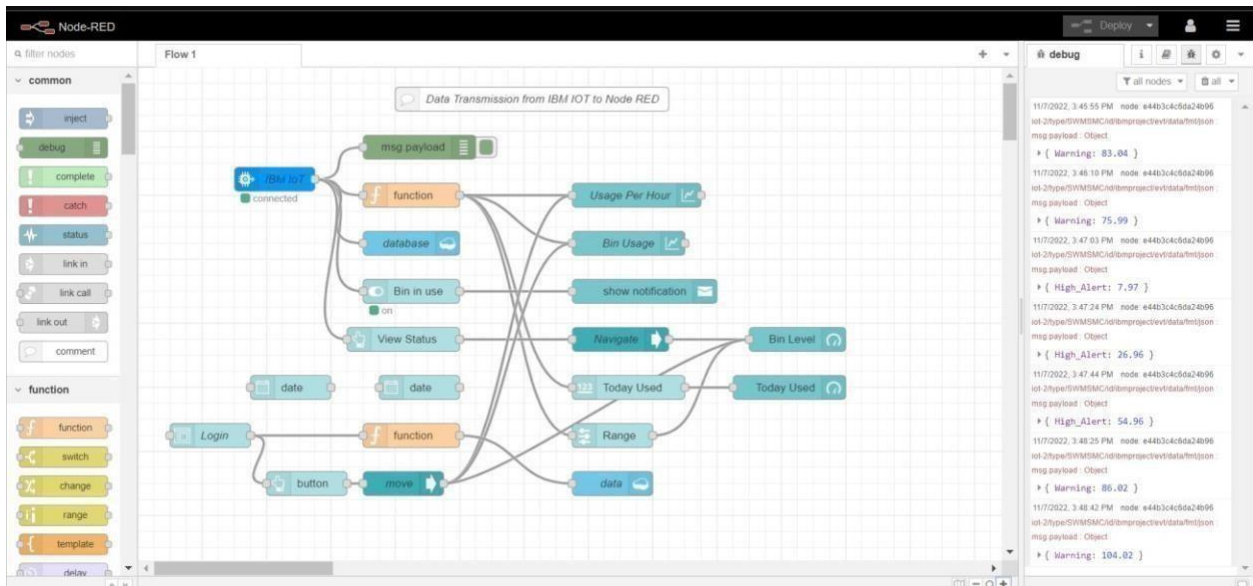
Lid Closed



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



5 . Storing database in IBM cloudant DB.

← →

Databases

Database name ▾

Create Database

{ } JSON

📖

🔔

Your Databases

| Name | Size | # of Docs | Partitioned | Actions |
|----------------------|---------|-----------|-------------|---|
| login_credentials | 13.7 KB | 111 | No | <div>↔</div> <div>🔒</div> <div>🗑️</div> |
| noderedwjldy20221105 | 37.4 KB | 4 | No | <div>↔</div> <div>🔒</div> <div>🗑️</div> |
| sample | 59.4 KB | 351 | No | <div>↔</div> <div>🔒</div> <div>🗑️</div> |
| sensor_data | 15.7 KB | 90 | No | <div>↔</div> <div>🔒</div> <div>🗑️</div> |

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": "1-4e7240f6e5307a1b9... |

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

Log Out

6. Data is stored in JSON format

↔

sensor_data > 0198213c192cb2c244cc2433f1802b91

{ } JSON

📖

🔔

📈

🗄️

🔄

📄

👤

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📖

🏠

Log Out

Save Changes Cancel

Upload Attachment Clone Document Delete

1 {

2 "_id": "0198213c192cb2c244cc2433f1802b91",

3 "_rev": "1-cde2dd17c519394dfeb774730c495f8b",

4 "topic": "iot-2/type/SwMSMC/id/ibmproject/evt/data/fmt/json",

5 "payload": {

6 "Warning!!": "244.97left"

7 },

8 "deviceId": "ibmproject",

9 "deviceType": "SwMSMC",

10 "eventType": "data",

11 "format": "json"

12 }

7. Web UI

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

