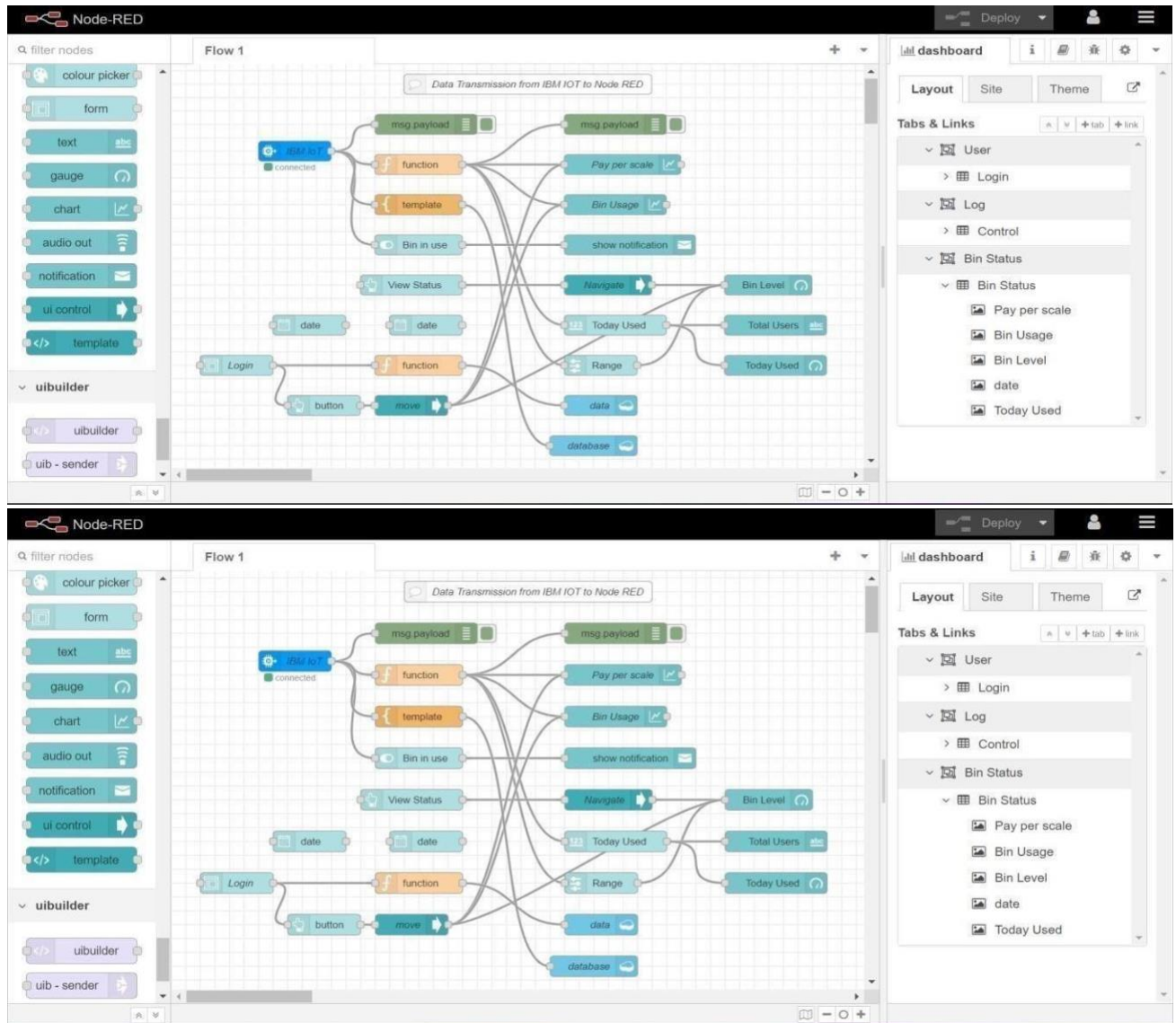


*Node Red Connection to IBM Cloudant*

<b><i>TEAM ID</i></b>	<b><i>PNT2022TMID48693</i></b>
<b><i>PROJECT NAME</i></b>	<b><i>PROJECT- Smart waste management system for metropolitan cities</i></b>

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.

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");

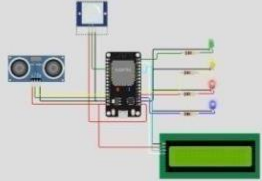
```

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

3. Data transfer to Watson IOT platform.

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

Browse

Action

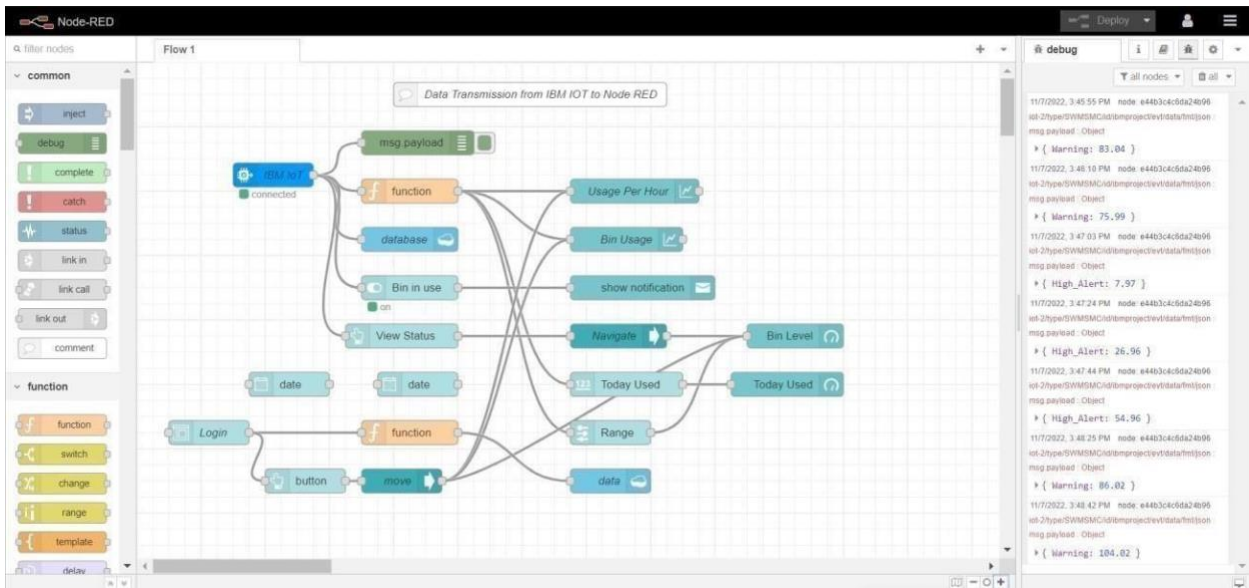
Device Types

Interfaces

Add Device +

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



## 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						
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									

[illegible]

6. Data is stored in JSON format

↔

📈

🗄️

🔗

📄

👤

🔍

📖

🏠

Log Out

sensor\_data > 0198213c192cb2c244cc2433f1802b91

{}JSON

📖

🔔

✔ Save Changes Cancel

📎 Upload Attachment

🔄 Clone Document

🗑️ Delete

1 {

2   "\_id": "0198213c192cb2c244cc2433f1802b91",

3   "\_rev": "1-cde2dd17c519394dfeb774738c495f8b",

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

5   "payload": {

6     "Warning!!": "244.97left"

7   },

8   "deviceId": "ibmproject",

9   "deviceType": "SW@SMC",

10   "eventType": "data",

11   "format": "json"

12 }