Delivery of Sprint – 3

**Node Red Connection to IBM
Cloudant**

Date	10 November 2022
Team ID	PNT2022TMID38779
Project Name	Smart Waste Management for Metropolitan Cities

1. **Node-RED Connection setup for data transmission from IBM Watson IOT platform to Node-RED dashboard.**
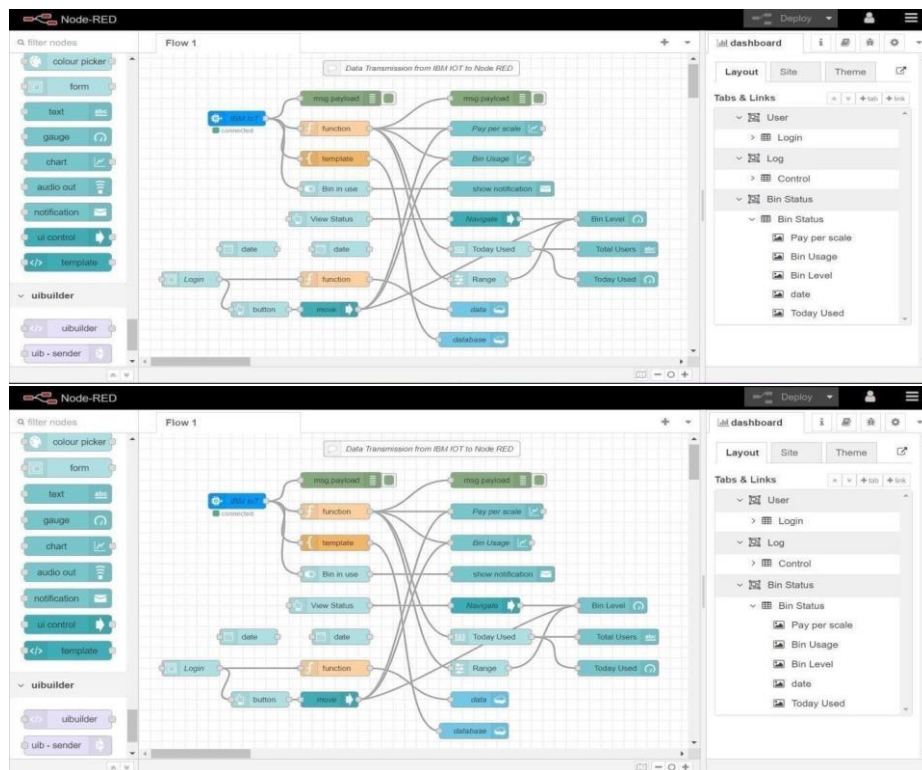
2.Simulate Wokwi connection to transmit data from wokwi account to IBM Watson IOT platform and then to Node Red dashboard.

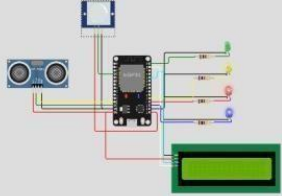| esp32-blink.ino | diagram.json | libraries.txt | Library Manager ▼ |

```
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
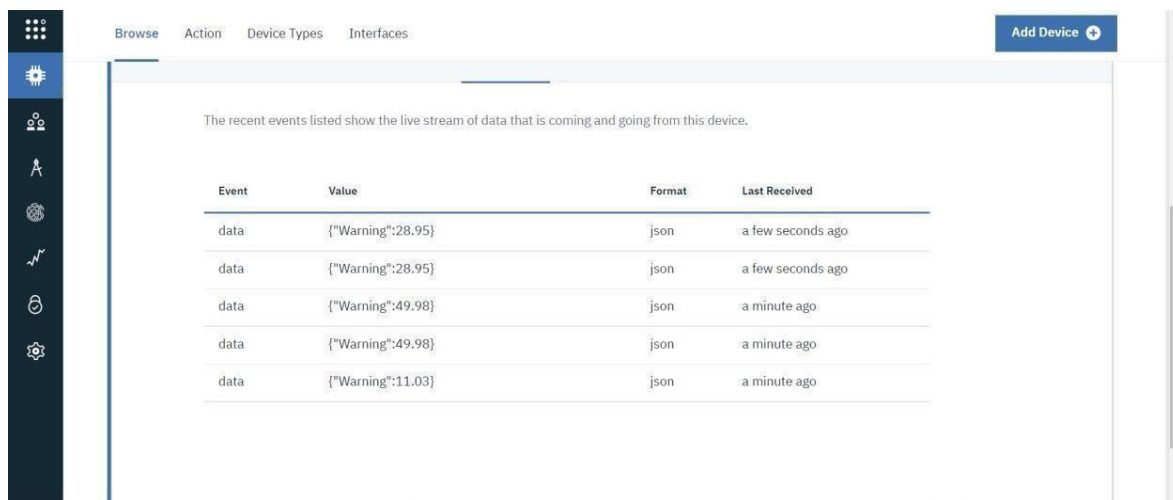Publish OK
Motion Detected
Lid Opened
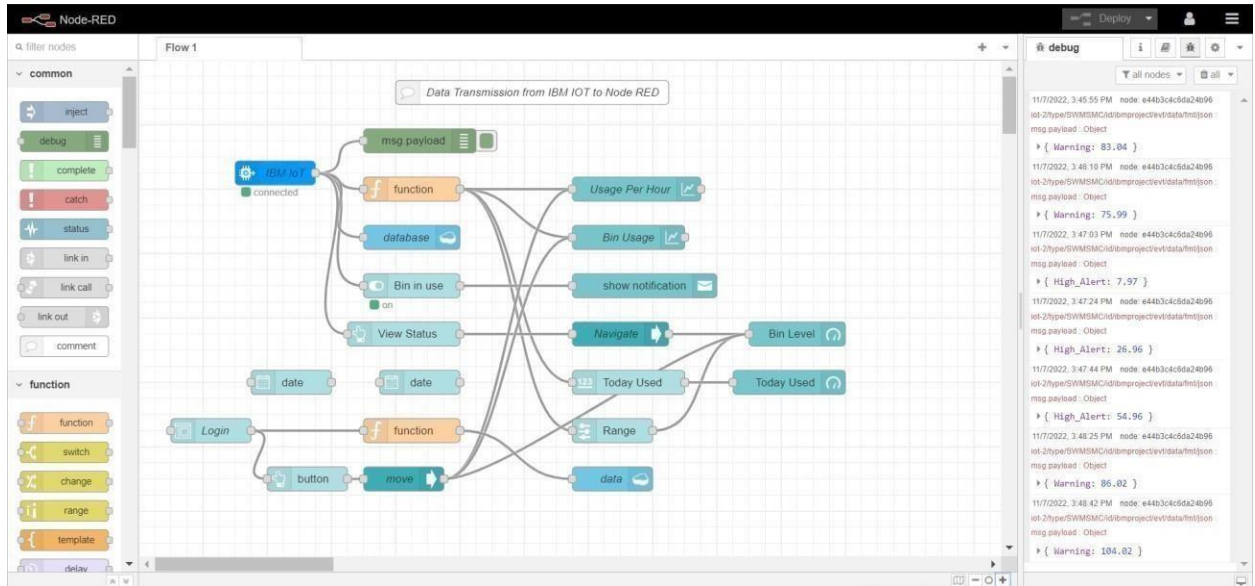High Alert!!!,Trash bin is about to be full
Lid Closed

2. Data transfer to Watson IOT platform.

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

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

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.

4. Storing database in IBM cloudant DB.

5. Data is stored in JSON format