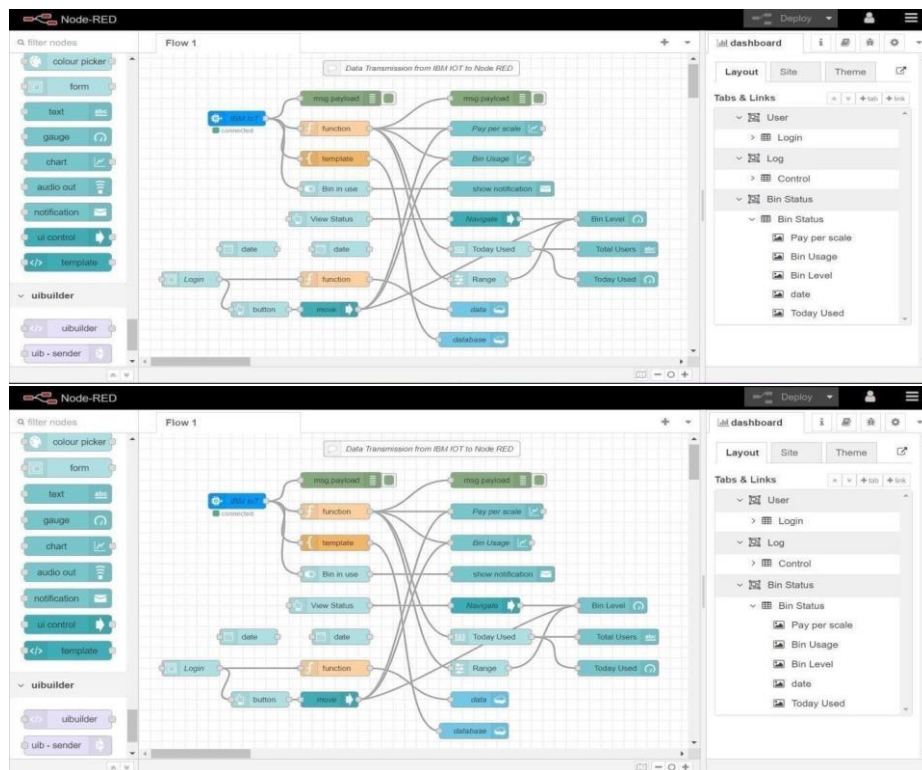


## Delivery of Sprint – 3

### Node Red Connection to IBM Cloudfant

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-REDdashboard.



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

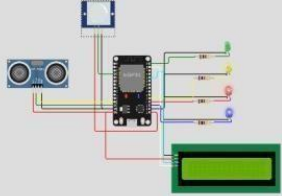
```
177
178
179
180
181
182   if(cm <= 25)
183   {
184     digitalWrite(21,HIGH);
185     String payload = "{\"High_Alert\":\"";
186     payload += cm;
187     payload += " }";
188     Serial.print("\n");
189     Serial.print("Sending payload: ");
190     Serial.println(payload);
191
192     if (client.publish(publishTopic, (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

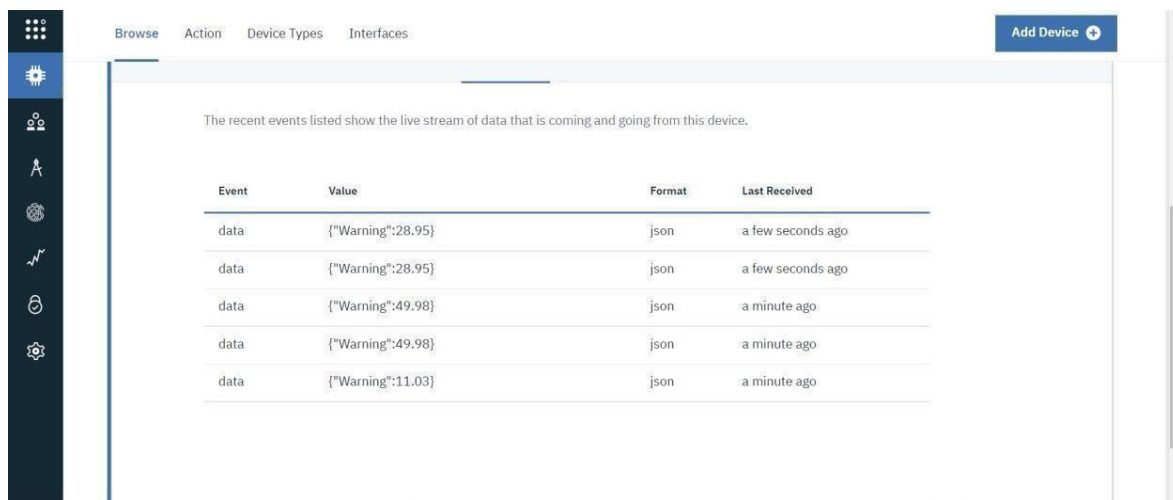
Lid Opened

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

Lid Closed

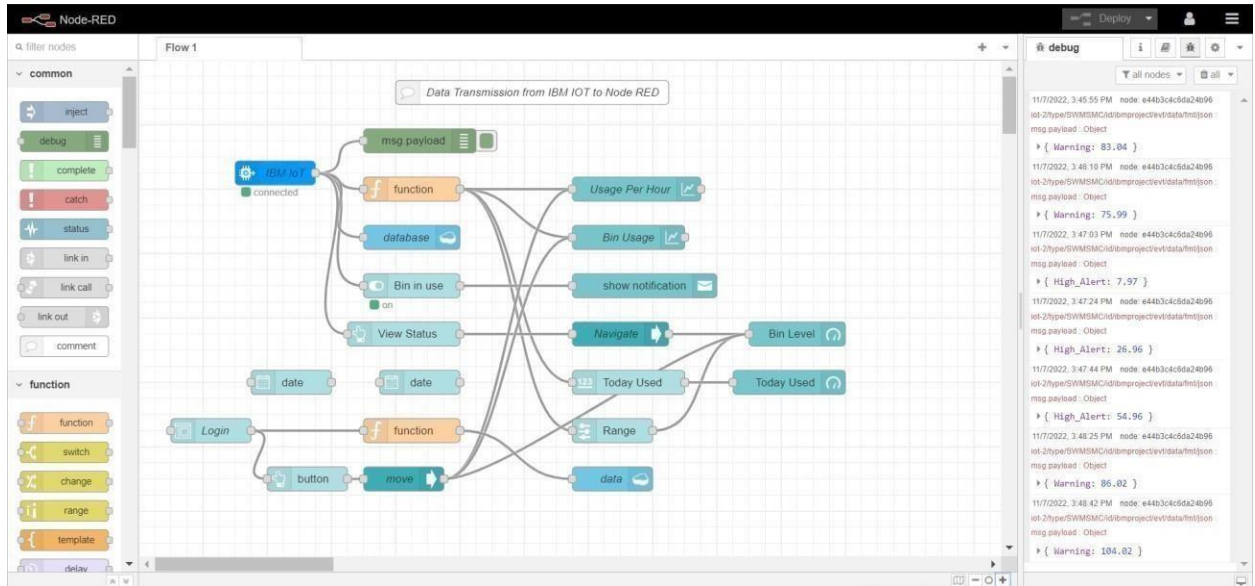
2. Data transfer to Watson IOT platform.

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



The screenshot displays the IBM Watson IoT Platform interface. On the left is a dark sidebar with various icons. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces', along with an 'Add Device' button. The main content area shows a message: 'The recent events listed show the live stream of data that is coming and going from this device.' Below this is a table with four columns: 'Event', 'Value', 'Format', and 'Last Received'. The table contains five rows of data, all with 'data' as the event type and 'json' as the format. The values are JSON objects containing a 'Warning' field with numerical values. The 'Last Received' column indicates the time since the data was received, ranging from 'a few seconds ago' to 'a minute ago'.

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



#### 4. 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	  

Log Out

Showing 1-4 of 4 databases. Databases per page 20

1

