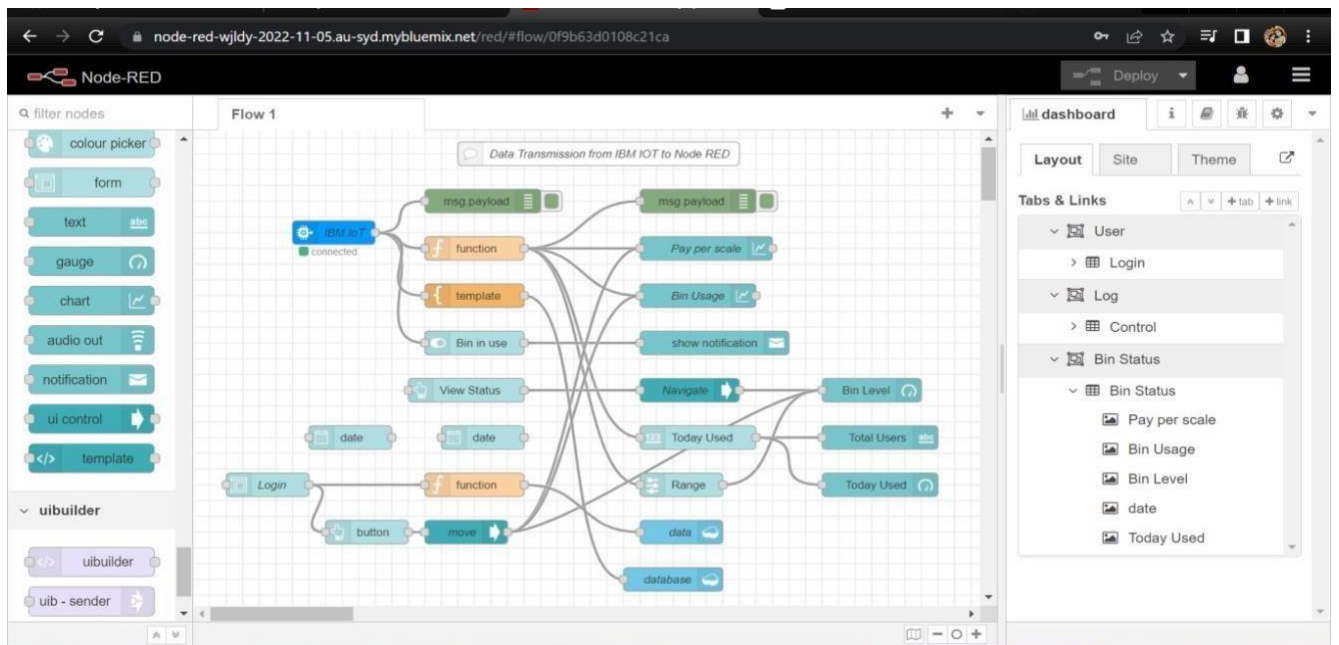


## Delivery of Sprint – 3

### Node Red Connection to IBM Cloudant

Date	5 November 2022
Team ID	PNT2022TMID19022
Project Name	Smart Waste Management for Metropolitan Cities - IOT

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.

The screenshot shows the Wokwi IDE interface. On the left, the code for `esp32-blink.ino` is displayed, featuring logic for sending distance data to Watson IoT and detecting motion. The simulation on the right shows a circuit with a PIR sensor and a display, with a log of events including "Sending distance: 26.94", "Publish OK", "Motion Detected", "Lid Opened", "High Alert!!!,Trash bin is about to be full", and "Lid Closed".

3.Data transfer to Watson IOT platform.

The screenshot shows the IBM Watson IoT Platform interface. The "Recent events" section displays a table of events. The table has columns for Event, Value, Format, and Last Received. The events listed are:

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



id	key	value
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df..."
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-d26c5b40891e13c6c..."
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df..."
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-f96eb0460bc16cfab0..."
1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-7226f08794cd47b7c..."
1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-1bbdd9a985bd56cf9..."
20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-7226f08794cd47b7c..."
20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-3ad288ecad57f039e..."
20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-1bbdd9a985bd56cf9..."
298ed6fhd9b3b815f5ac7c061e...	298ed6fhd9b3b815f5ac7c061e...	{ "rev": "1-4e7240f6e5307a1h9..."

Showing document 1 - 20. Documents per page: 20

## 6.Data is stored in JSON format

```

1 {
2   "_id": "0198213c192cb2c244cc2433f1802b91",
3   "_rev": "1-cde2dd17c519394df774730c495f8b",
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 }

```