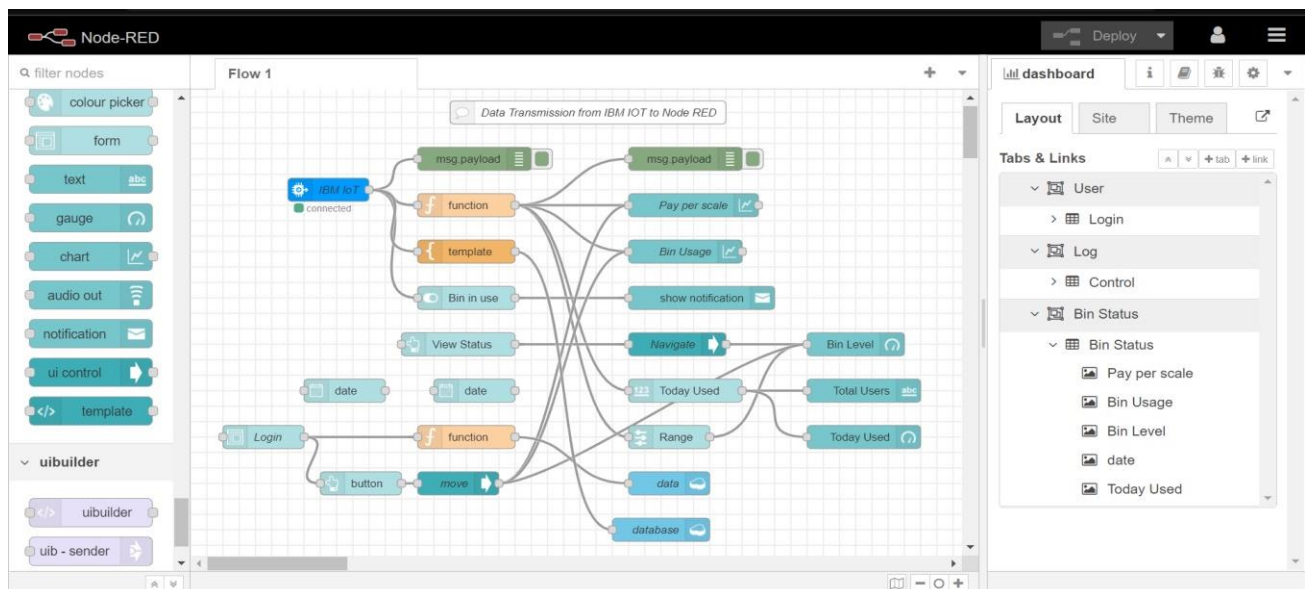
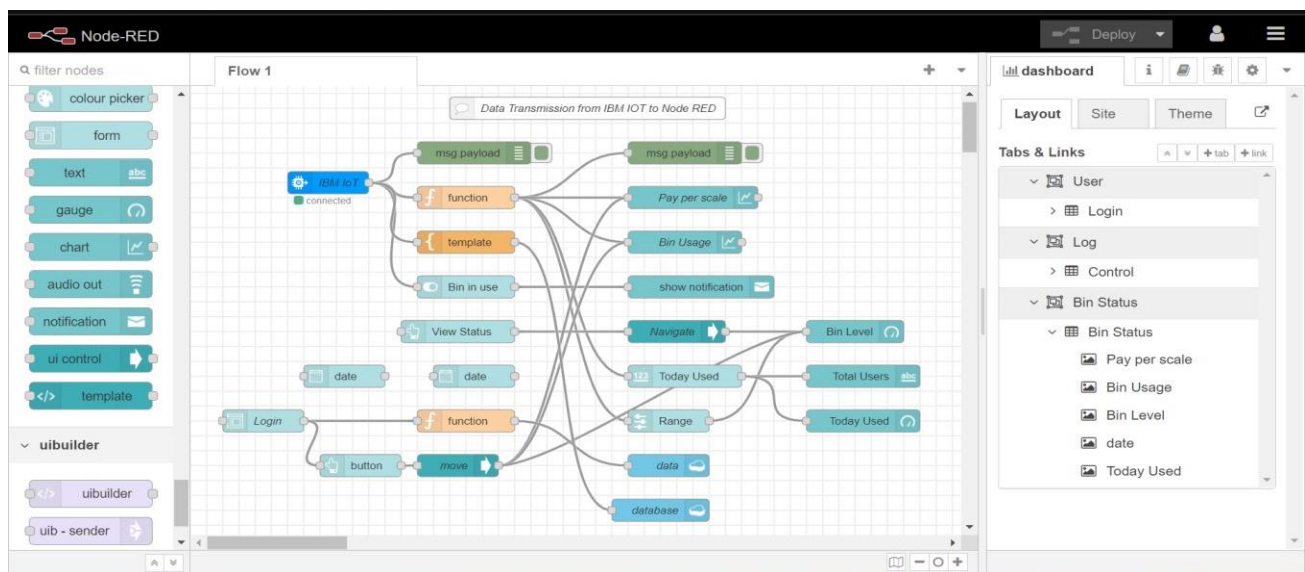


Delivery of Sprint – 3

Node Red Connection to IBM Cloudant

Date	19 November 2022
Team ID	PNT2022TMID04566
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.

3. Data transfer to Watson IOT platform.

The image shows the Wokwi IDE interface. On the left, the code editor displays a C++ program for an ESP32. The code includes logic for sending distance data and triggering alerts based on distance thresholds. On the right, the simulation window shows a circuit diagram of an ESP32 connected to a PIR motion sensor and an LCD display. A 'PIR Motion Sensor' dialog box is open, allowing the user to 'Simulate motion'. Below the circuit, a console log displays the following output:

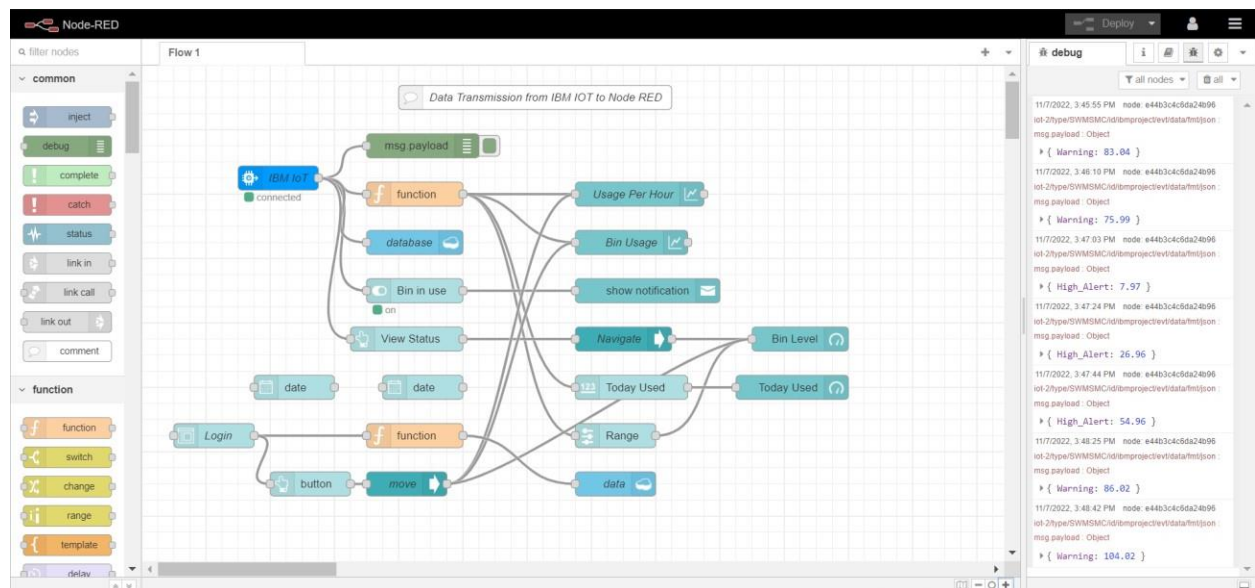
```
Sending distance: 26.94
Publish OK
Motion Detected
Lid Opened
High Alert!!!,Trash bin is about to be full
Lid Closed
```

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.

↔

sensor_data > 0198213c192cb2c244cc2433f1802b91

{}JSON

📖

🔔

✓ 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!!": "244.971left"

7 },

8 "deviceId": "ibmproject",

9 "deviceType": "SWMSMC",

10 "eventType": "data",

11 "format": "json"

12 }

Log Out

```
{
  "_id": "0198213c192cb2c244cc2433f1802b91",
  "_rev": "1-cde2dd17c519394dfeb774730c495f8b",
  "topic": "iot-2/type/SWMSMC/id/ibmproject/evt/data/fmt/json",
  "payload": {
    | "Warning!!": "244.971left"
  },
  "deviceId": "ibmproject",
  "deviceType": "SWMSMC",
  "eventType": "data",
  "format": "json"
}
```