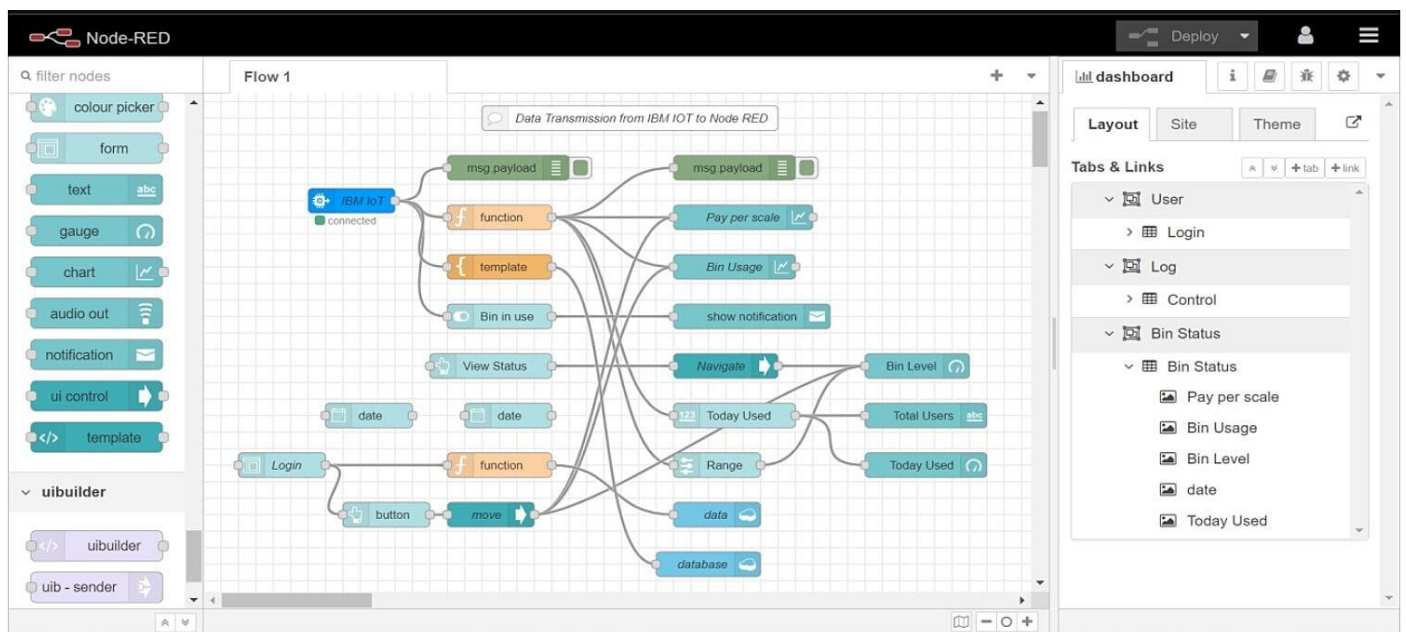
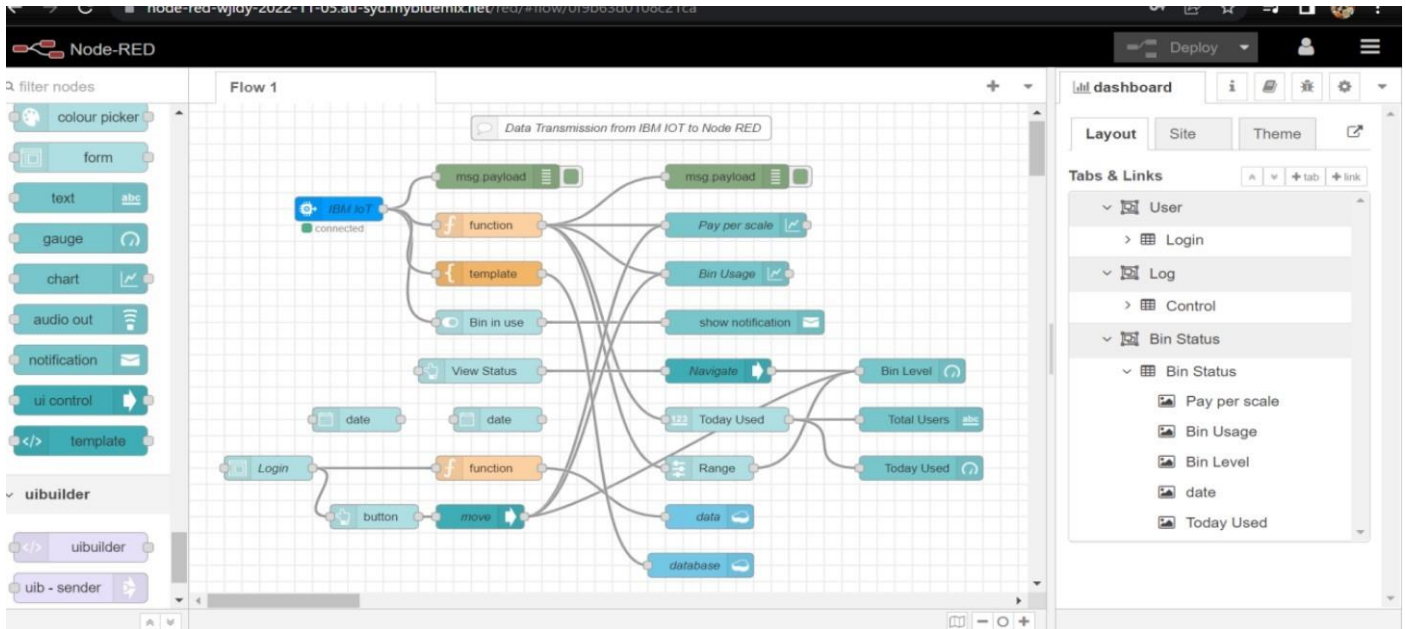


SPIRNT 3

Date	11 Nov 2022
Team ID	PNT2022TMID23556
Project Name	Smart Waste Management System For Metropolitan Cities

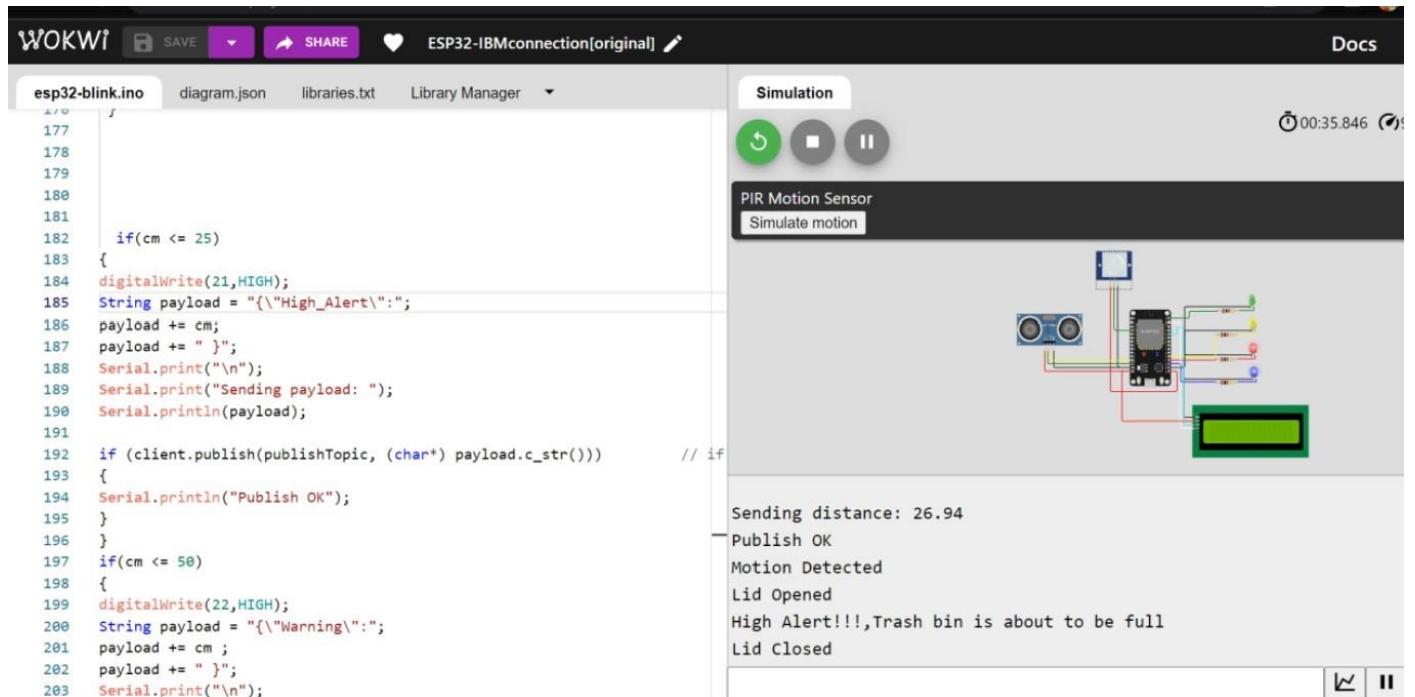
1. Node-RED Connection setup for data transmission from IBM Watson IOT platform to Node-RED dashboard.



2. Simulate Wokwi connection to transmit data from wokwi account to IBM Watson IOT platform and then to

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Node Red dashboard.



```
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");
```

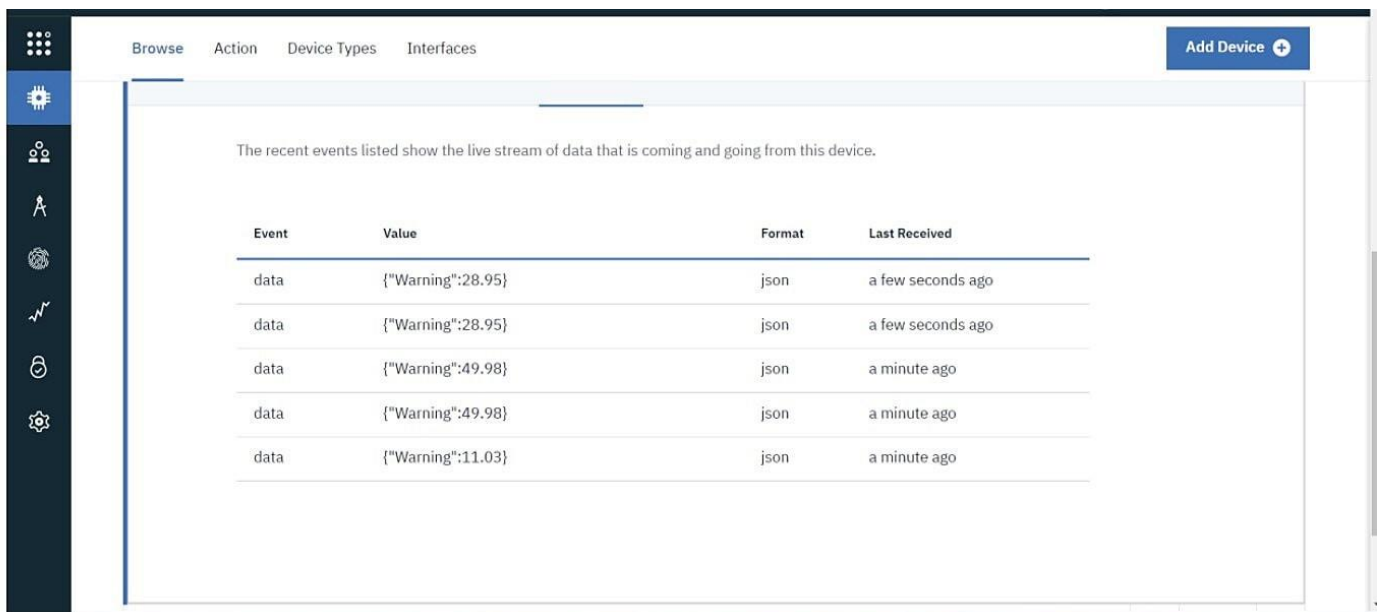
Simulation

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.



Browse Action Device Types Interfaces

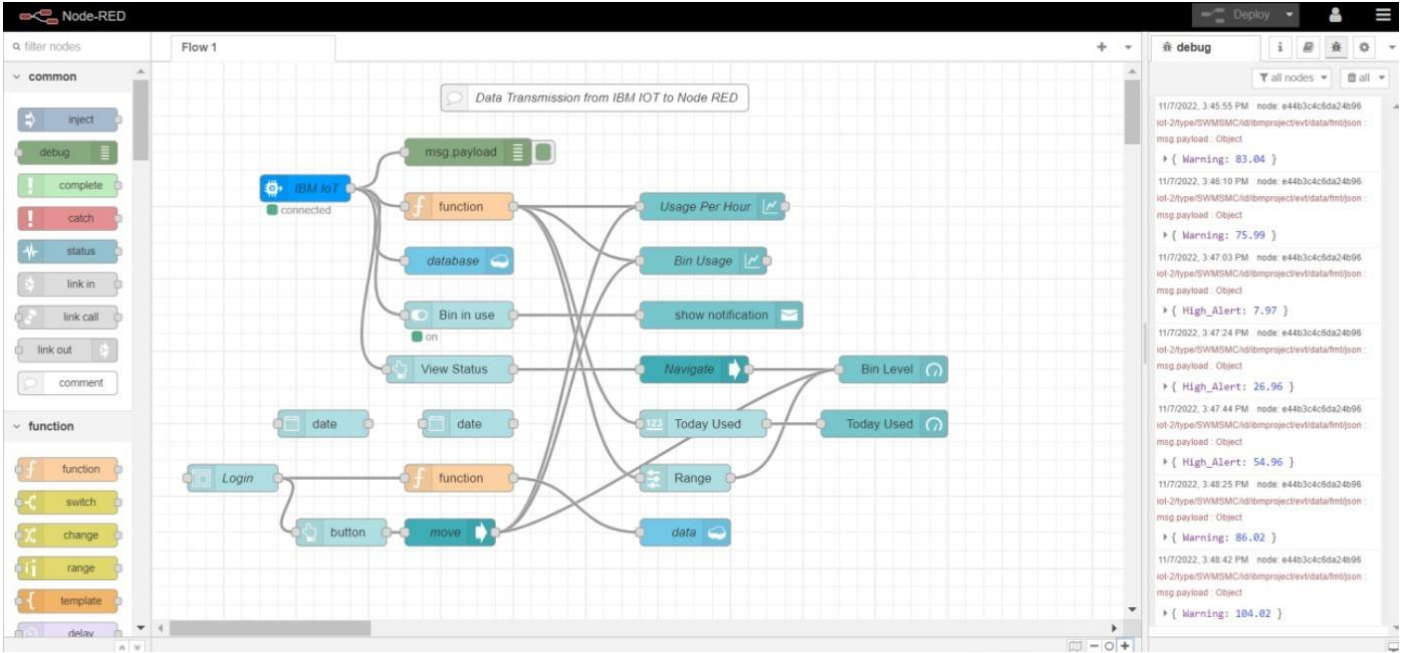
Add Device +

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

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

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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	<div></div> <div></div> <div></div>
noderedwjldy20221105	37.4 KB	4	No	<div></div> <div></div> <div></div>
sample	59.4 KB	351	No	<div></div> <div></div> <div></div>
sensor_data	15.7 KB	90	No	<div></div> <div></div> <div></div>

Showing 1–4 of 4 databases.

Databases per page

20

« 1 »

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↔

sensor_data

⋮

Document ID

Options

{ } JSON

📖

🔔

All Documents +

Query

Permissions

Changes

Design Documents +

Table

Metadata

{ } JSON

📄

Create Document

	id	key	value
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df..."
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-d26c5b40891e13c6c..."
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df..."
<input type="checkbox"/>	0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-f96eb0460bc16cfab0..."
<input type="checkbox"/>	1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-7226f08794cd47b7c..."
<input type="checkbox"/>	1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-1bbdd9a985bd56cf9..."
<input type="checkbox"/>	20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-7226f08794cd47b7c..."
<input type="checkbox"/>	20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-3ad288ecad57f039e..."
<input type="checkbox"/>	20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-1bbdd9a985bd56cf9..."
<input type="checkbox"/>	298ed6fbd9b3b815f5ac7c061e...	298ed6fbd9b3b815f5ac7c061e...	{ "rev": "1-4e7240f6e5307a1b9..."

Showing document 1 - 20. Documents per page: 20

Log Out

6.Data is stored in JSON format

↔

sensor_data > 0198213c192cb2c244cc2433f1802b91

{ } JSON

📖

🔔

Save Changes

Cancel

Upload Attachment

Clone Document

Delete

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 }

Log Out

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