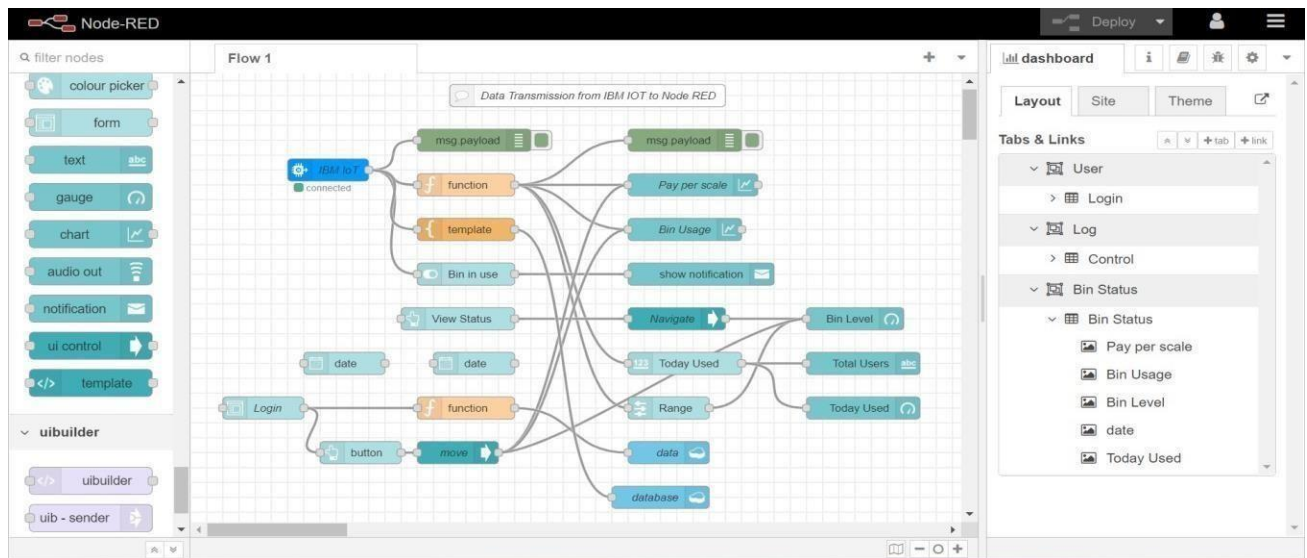


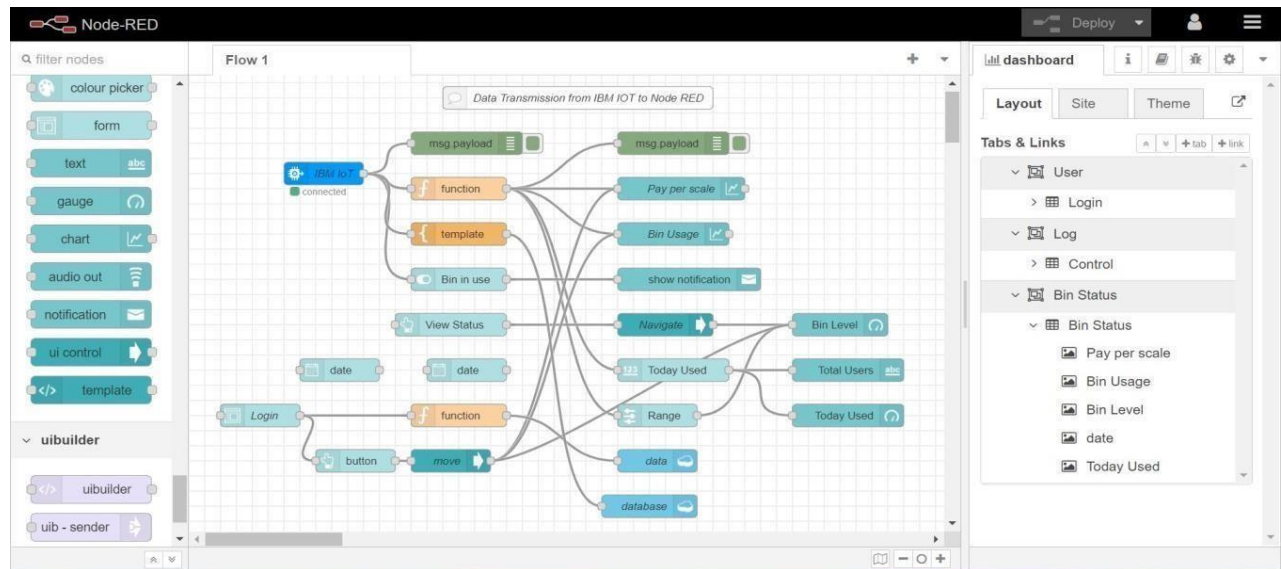
**PROJECT DEVELOPMENT**  
**PHASE**  
**SPRINT 4**

## Node Red Connection With Wokwi setup to IBM DB in Cloudbant

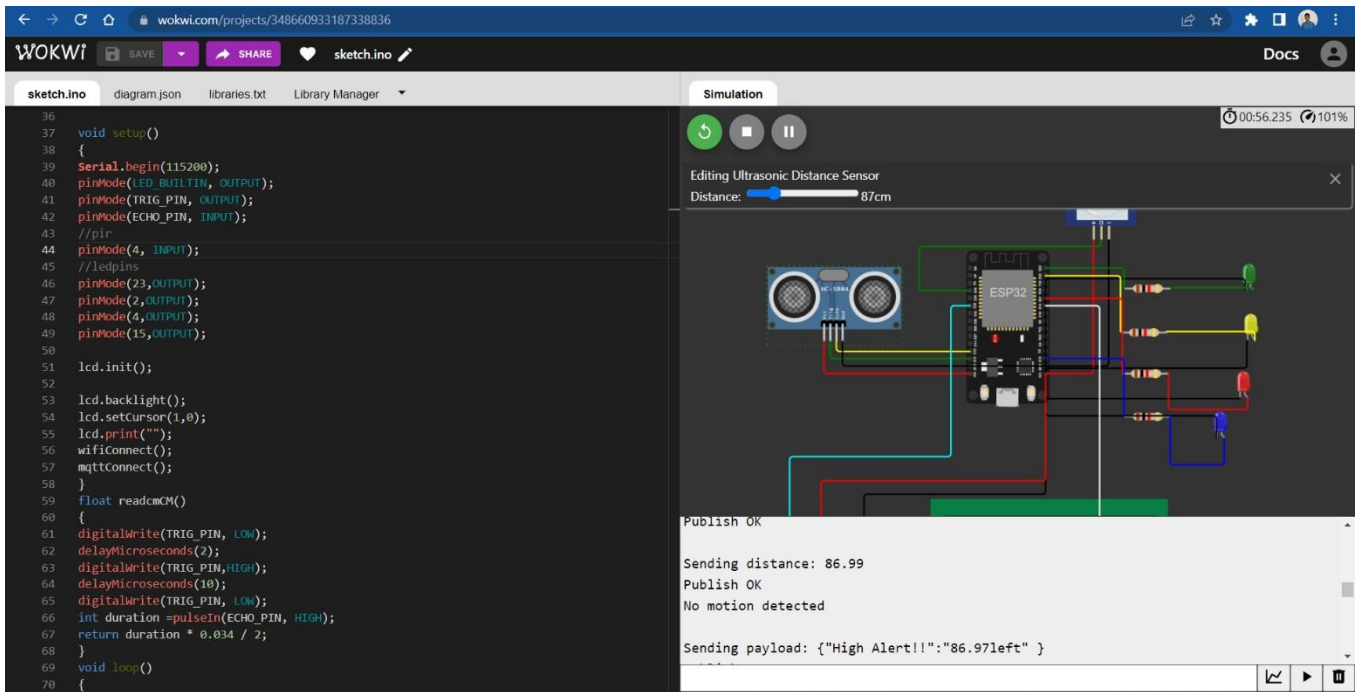
Date	15 November 2022
Team ID	PNT2022TMID04392
Project Name	Smart Waste Management System for Metropolitan Cities

1. **Node-RED Connection Design for project model by flowing the detail from one bin to the user for usage of that each bin by showing alert message and data flow from IBM Watson Platform to Node-RED Setup.**





2. Simulate Wokwi Simulator to transmit data from Wokwi account to IBM IOT platform and then to Node Red Setup Dashboard for Detail of project design from each bin to the sensor for user Reference.

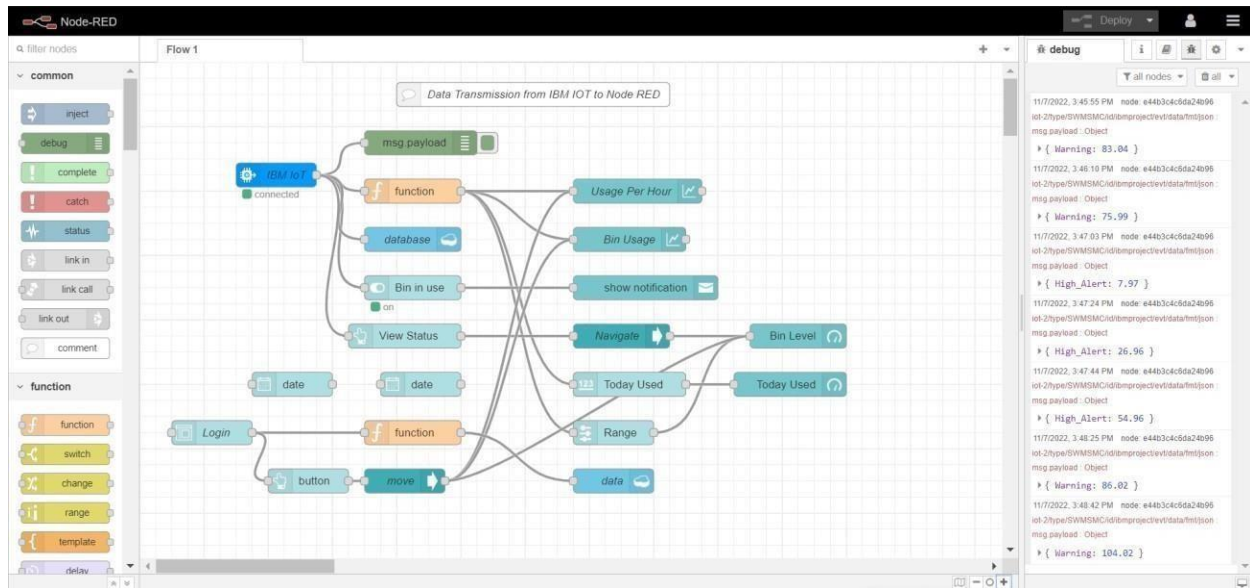


3. Data Values Display to IBM Cloud Account from Wokwi Simulation:

The screenshot shows the IBM Cloud IoT Dashboard. A table titled 'The recent events listed show the live stream of data that is coming and going from this device.' displays the following data:

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.




## 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>
noderedwjdy20221105	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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🌐 139fa717-6afa-42fa-a8e7-65e7b992160a-bluemix.cloudant.com/dashboard.html#/all\_dbs

🔍

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👤

Databases

Database name ▾

Create Database

{ }JSON

📖

Your Databases

Name	Size	# of Docs	Partitioned	Actions
mydb	14 bytes	1	No	<div>↔️🔒🗑️</div>

Showing 1–1 of 1 databases. Databases per page 20 ▾

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🌐 139fa717-6afa-42fa-a8e7-65e7b992160a-bluemix.cloudant.com/dashboard.html#/all\_dbs

🔍

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⚙️

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👤

Databases

Database name ▾

Create Database

{ }JSON

📖

🔔

Your Databases

Name	Size	# of Docs	Partitioned	Actions
mydb	42 bytes	2	No	<div>↔️🔒🗑️</div>

Showing 1–1 of 1 databases. Databases per page 20 ▾

🖥️🔍🌐📁📧📞📱🔥🎮🔧🖨️

📶🔊🔌ENG IN🕒10:08 AM06-11-2022🔔

139fa717-6afa-42fa-a8e7-65e7b992160a-bluemix.cloudant.com/dashboard.html#database/mydb/\_all\_docs

mydb

All Documents

Query

Permissions

Changes

Design Documents

Document ID

Options


{ }JSON

Create Document

Table

Metadata

{ }JSON

id	key	value
<input type="checkbox"/>  dcc01ce9460e610ba23b5bee7316202f	dcc01ce9460e610ba23b5bee7316202f	{ "rev": "1-4dbd80ab6e655d7ba1af92bca8563..." }

Showing document 1 - 1. Documents per page: 20

139fa717-6afa-42fa-a8e7-65e7b992160a-bluemix.cloudant.com/dashboard.html#database/mydb/\_all\_docs

mydb

All Documents

Query

Permissions

Changes

Design Documents

Document ID

Options



{ }JSON

Create Document

Table

Metadata

{ }JSON

id	key	value
<input type="checkbox"/>  a04b7243ca1602116b2270db43f908	a04b7243ca1602116b2270db43f908	{ "rev": "1-5a9eefa88efefa5162d14cf74fe309..." }
<input type="checkbox"/>  dcc01ce9460e610ba23b5bee7316202f	dcc01ce9460e610ba23b5bee7316202f	{ "rev": "1-4dbd80ab6e655d7ba1af92bca8563..." }

Showing document 1 - 2. Documents per page: 20

↔

◀

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"/>	298ed6fhd9h3b815f5ac7c061e...	298ed6fhd9h3b815f5ac7c061e...	{ "rev": "1-4e7240f6e5307a1b9...

Showing document 1 - 20.

Documents per page: 20

◀ ▶

## 6. Data In JSON format and Credentials For Wokwi Connection using Node Red Setup:

↔

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

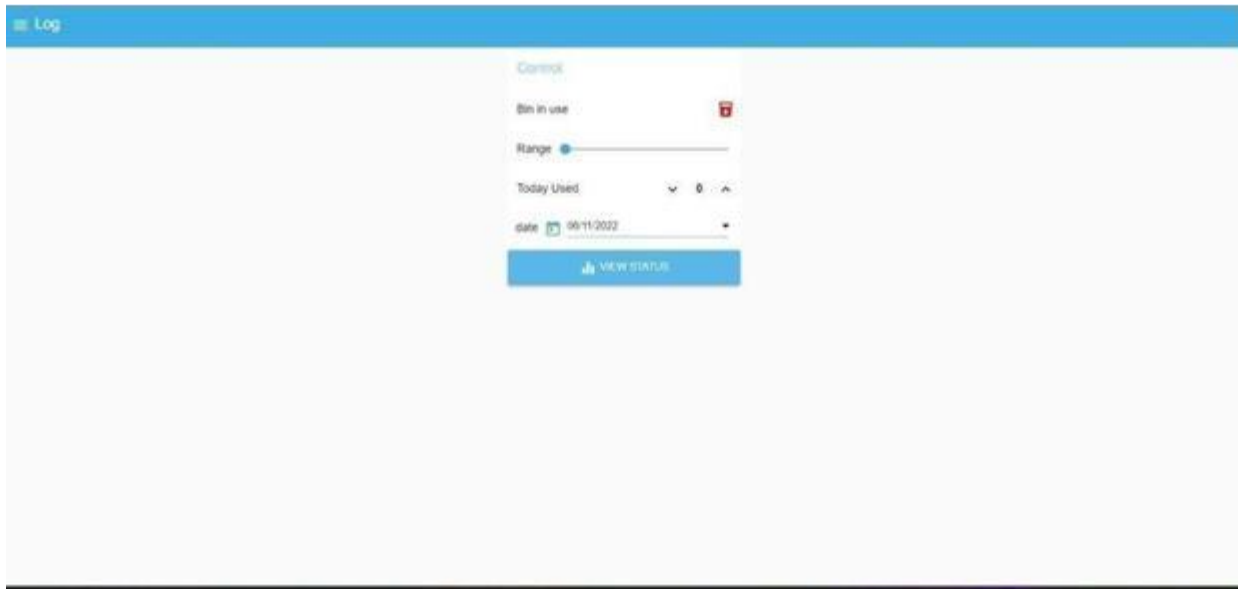
"eventType": "data",

11

"format": "json"

12

}



**PYTHON CODE WITH SENSOR CONNECTION IN WOKWI LINK:**

<https://wokwi.com/projects/348861592195039828>