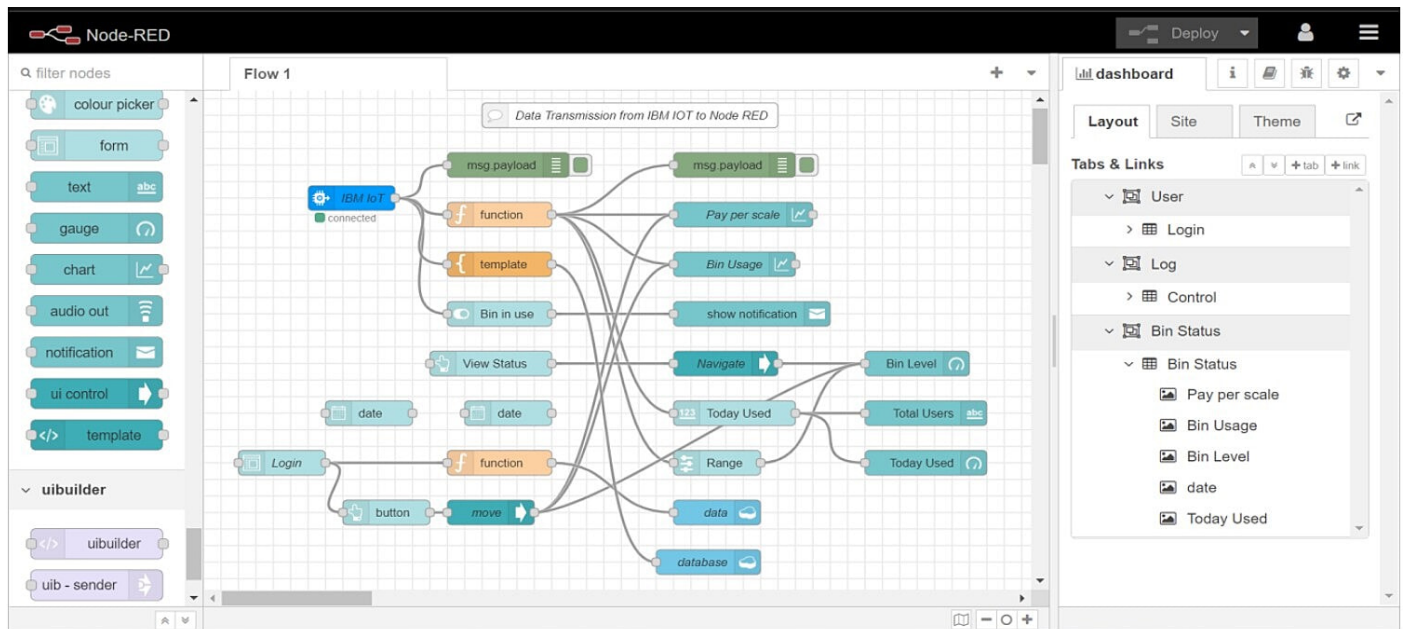
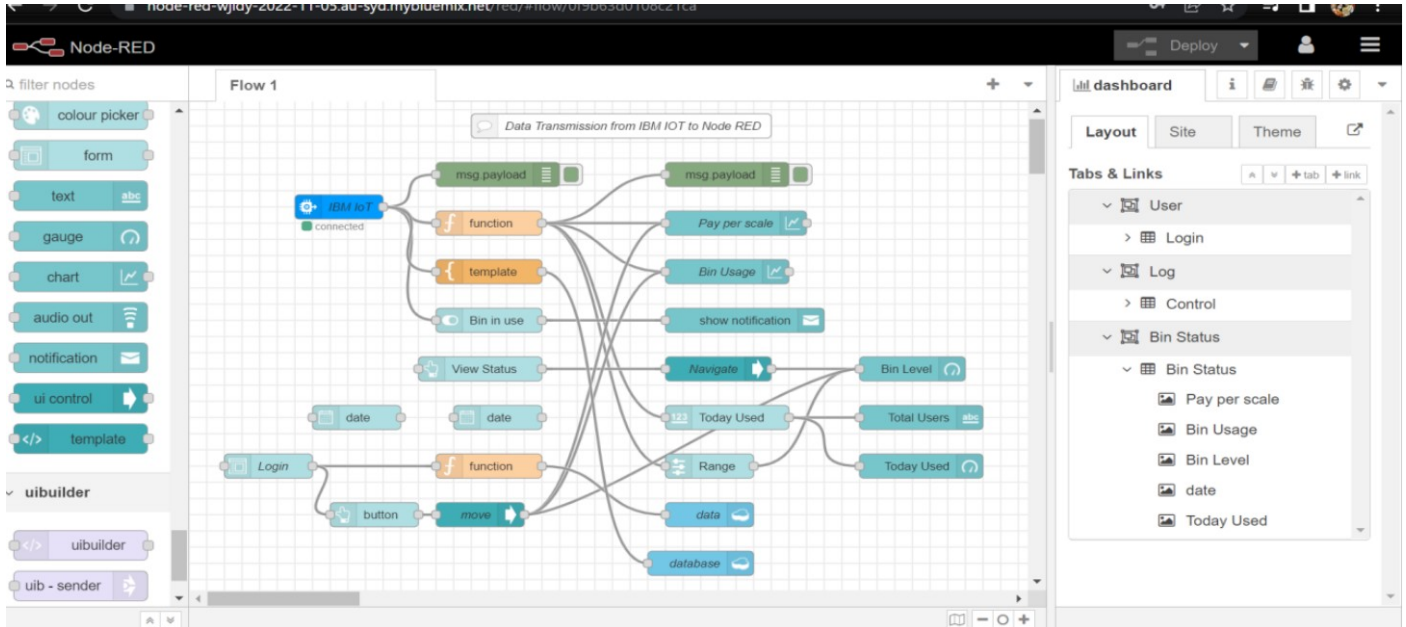


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SPIRINT 3

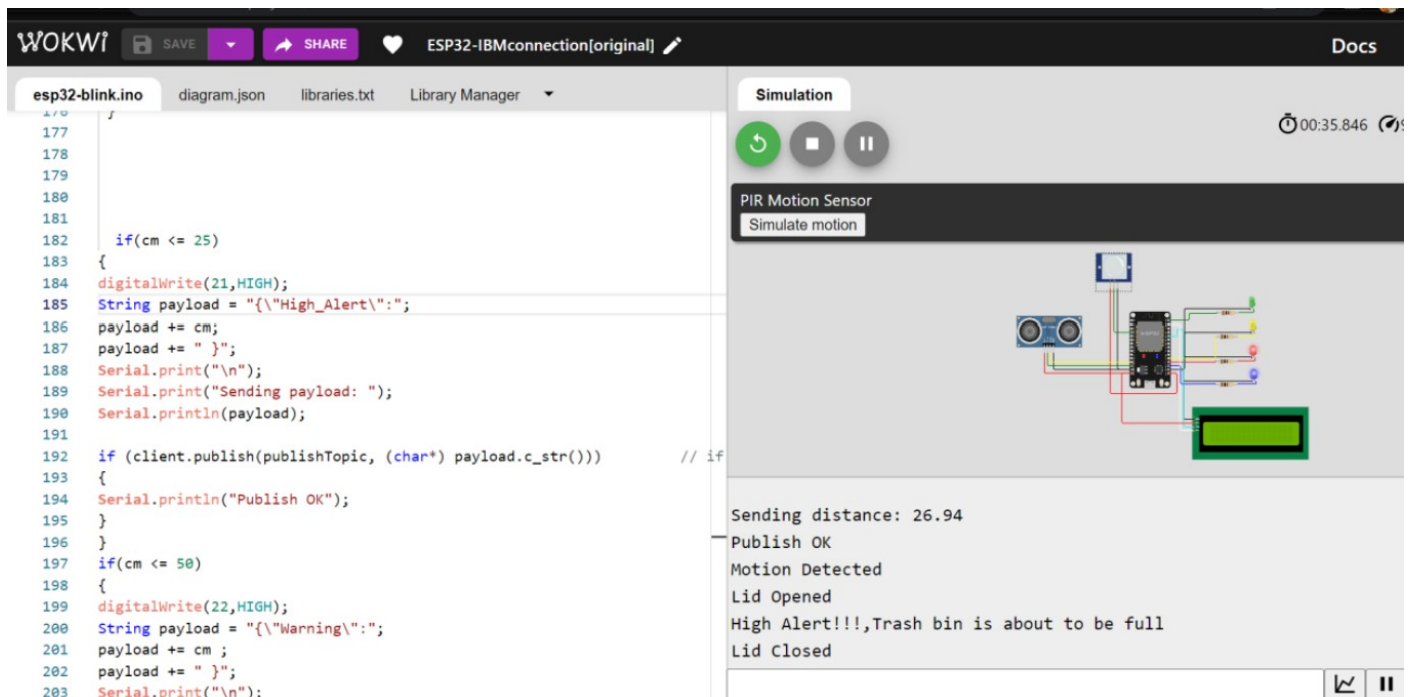
Date	5 Nov 2022
Team ID	PNT2022TMID14142
Project Name	Smart Waste Management System For Metropolitan Cities

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



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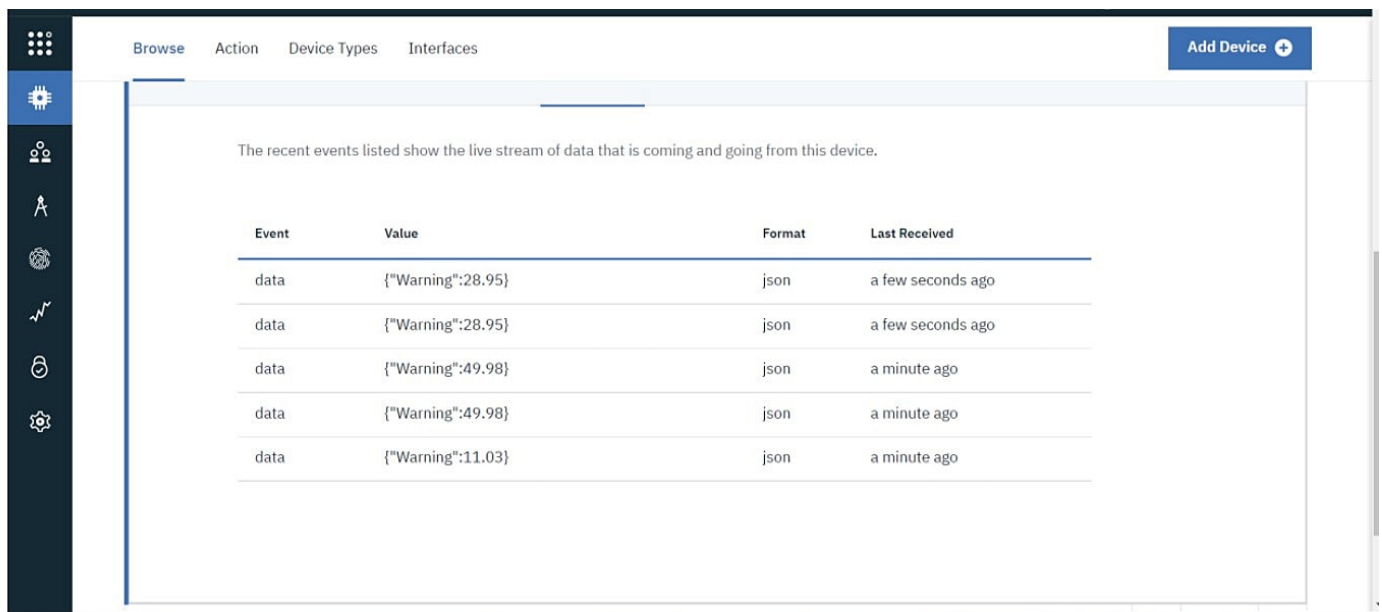
2.Simulate Wokwi connection to transmit data from wokwi account to IBM Watson IOT platform and then to Node Red dashboard.



The screenshot shows the Wokwi web interface. On the left, the code editor displays an Arduino sketch for an ESP32. The code includes logic for sending distance data and triggering alerts based on motion and distance thresholds. On the right, the simulation window shows a virtual circuit with an ESP32, a PIR motion sensor, and an LCD display. Below the circuit, a log window 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
```

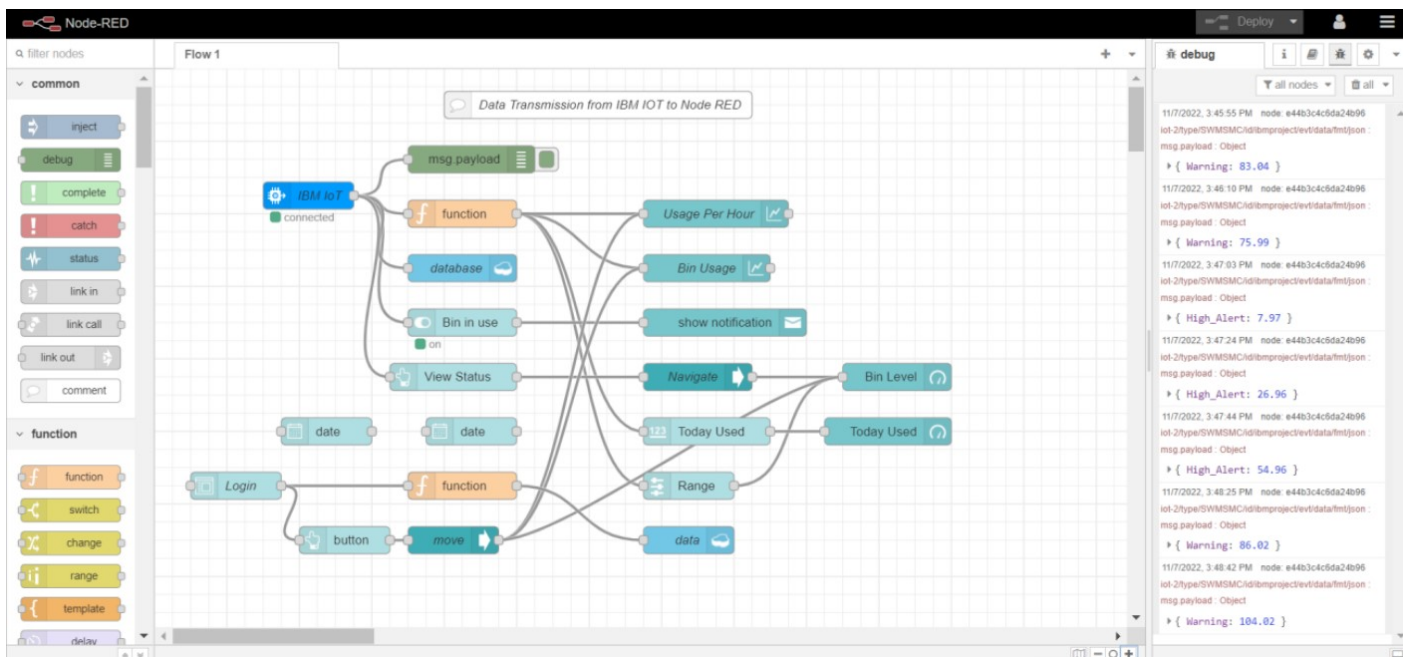
3.Data transfer to Watson IOT platform.



The screenshot shows the IBM Watson IoT Platform dashboard. The 'Browse' tab is selected, and the 'Recent events' section displays a table of data points received from a device. The table has four columns: Event, Value, Format, and Last Received.

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>
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

6.Data is stored in JSON format

↔

sensor_data > 0198213c192cb2c244cc2433f1802b91

{ } JSON

📖

🔔

Save Changes

Cancel

Upload Attachment

Clone Document

Delete

1

2

3

4

5

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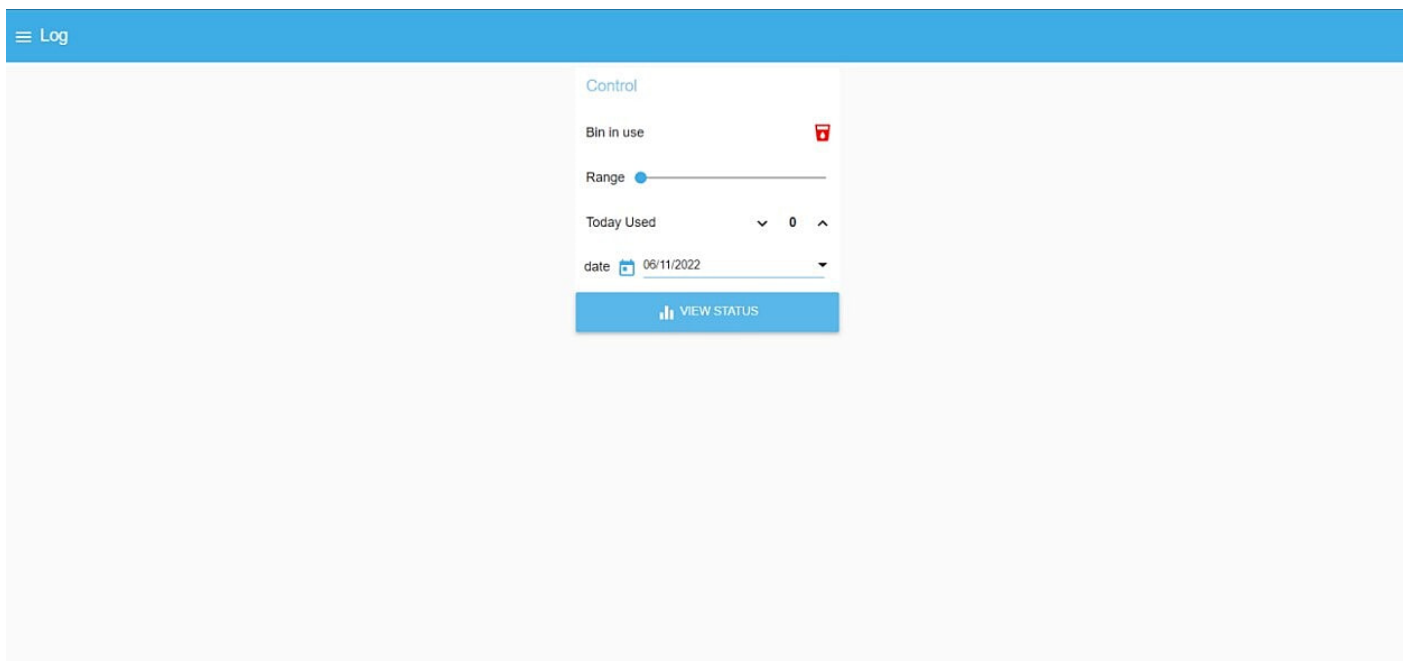
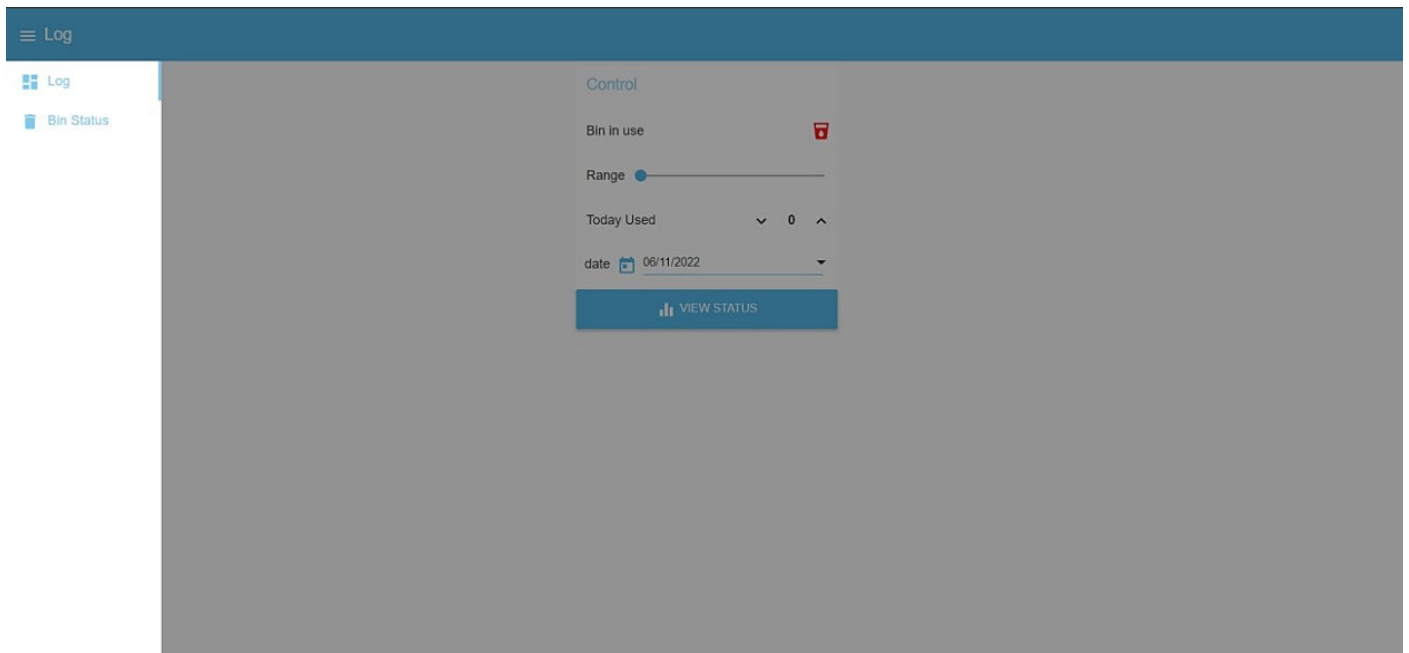
11

12

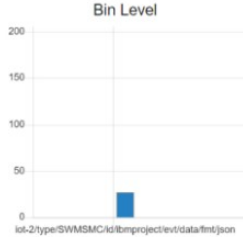
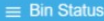
```
{
  "_id": "0198213c192cb2c244cc2433f1802b91",
  "_rev": "1-cde2dd17c519394df774730c495f8b",
  "topic": "iot-2/type/SWMSMC/id/ibmproject/evt/data/fmt/json",
  "payload": {
    "Warning!!": "244.97left"
  },
  "deviceId": "ibmproject",
  "deviceType": "SWMSMC",
  "eventType": "data",
  "format": "json"
}
```

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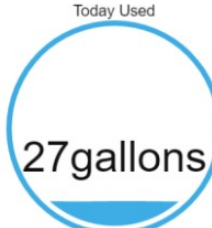
7. Web UI



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date 06/11/2022



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