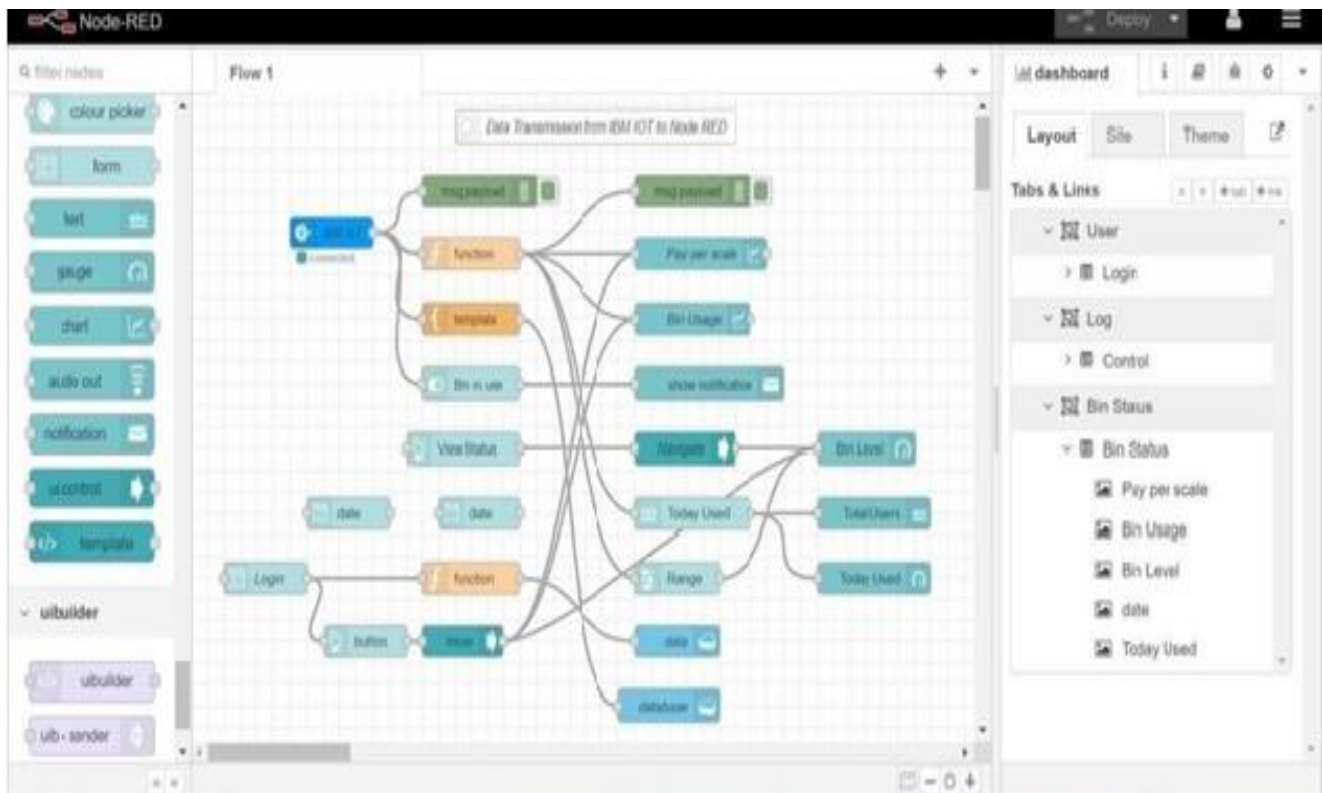


Delivery of Sprint – 3

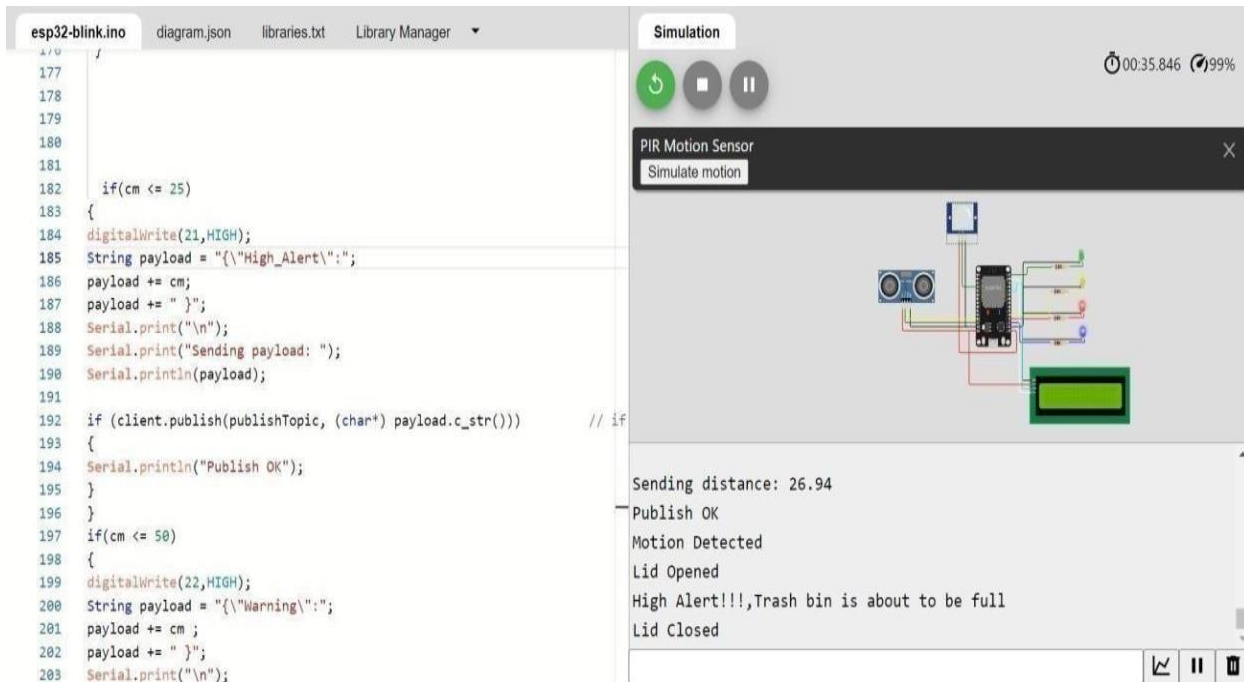
Node Red Connection to IBM Cloudant

Date	14 November 2022
Team ID	PNT2022TMID428057
Project Name	Smart Waste Management 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 Node Red dashboard.



The screenshot displays the Wokwi IDE interface. On the left, the code editor shows an ESP32 program named 'esp32-blink.ino'. The code includes logic for sending distance data and triggering alerts based on distance thresholds. On the right, the 'Simulation' window shows a virtual circuit diagram of the ESP32 board 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 diagram, a log window displays the following output:

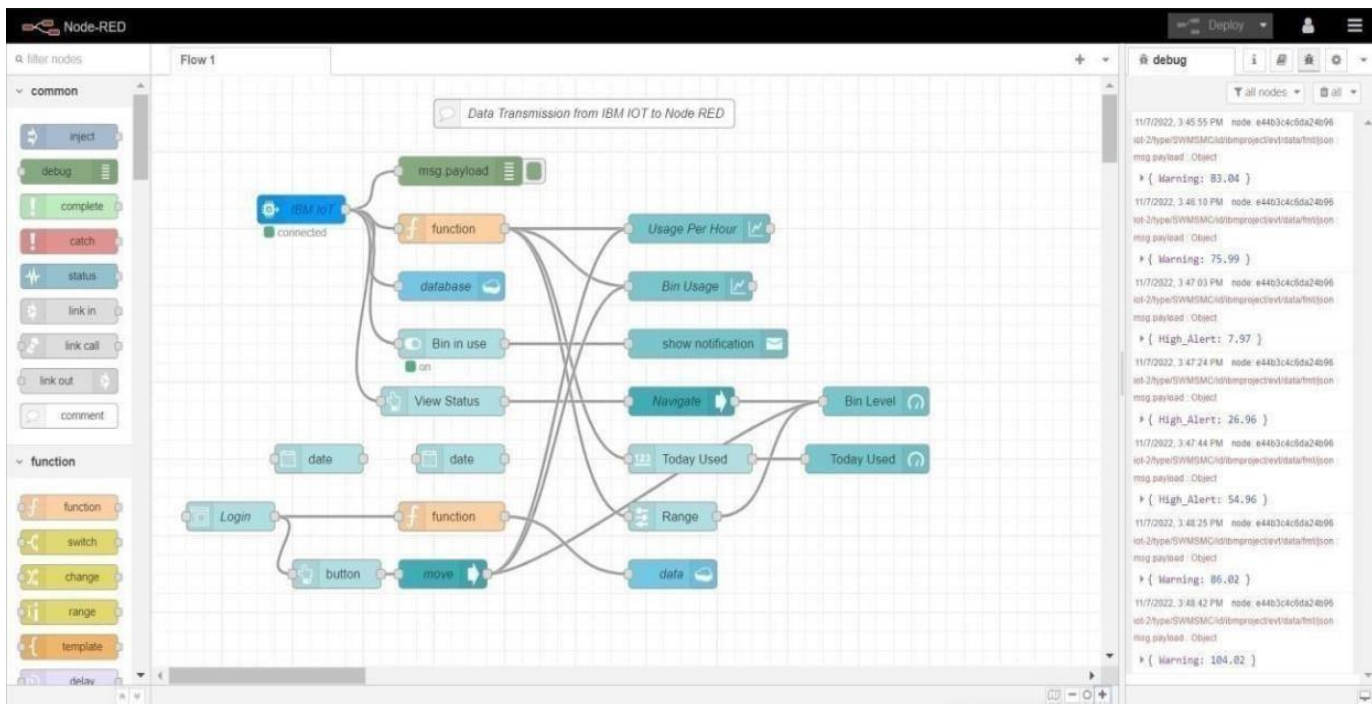
```
Sending distance: 26.94
Publish OK
Motion Detected
Lid Opened
High Alert!!!,Trash bin is about to be full
Lid Closed
```

BrowseActionDevice TypesInterfaces

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. Storing database in IBM cloudant DB.

↔

📊

🗄️

🔗

📋

👤

🔍

📖

☁️

Log Out

Databases

Database name

Create Database

{ } JSON

🔔

Your Databases

Name	Size	# of Docs	Partitioned	Actions
login_credentials	13.7 KB	111	No	🔗 🔒 🗑️
noderedwjldy20221105	37.4 KB	4	No	🔗 🔒 🗑️
sample	59.4 KB	351	No	🔗 🔒 🗑️
sensor_data	15.7 KB	90	No	🔗 🔒 🗑️

Showing 1-4 of 4 databases. Databases per page: 20

« 1 »

↔

📊

🗄️

🔗

📋

👤

🔍

📖

☁️

Log Out

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

« »

5. Data is stored in JSON format

The screenshot displays a web application interface for managing documents. The top bar shows the document title "sensor_data" followed by a long alphanumeric ID "0198213c192cb2c244cc2433f1802b91". To the right of the title are icons for JSON format, a document icon, and a bell icon. Below the title bar is a navigation sidebar on the left with various icons, including a "Log Out" button at the bottom. The main editor area has a top bar with "Save Changes" (checked), "Cancel", "Upload Attachment", "Clone Document", and "Delete" buttons. The document content is a JSON object displayed with line numbers 1 through 12. The JSON object contains the following fields:

```
1 {  
2   "_id": "0198213c192cb2c244cc2433f1802b91",  
3   "_rev": "1-cde2dd17c519394dfef774730c495f8b",  
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 }
```