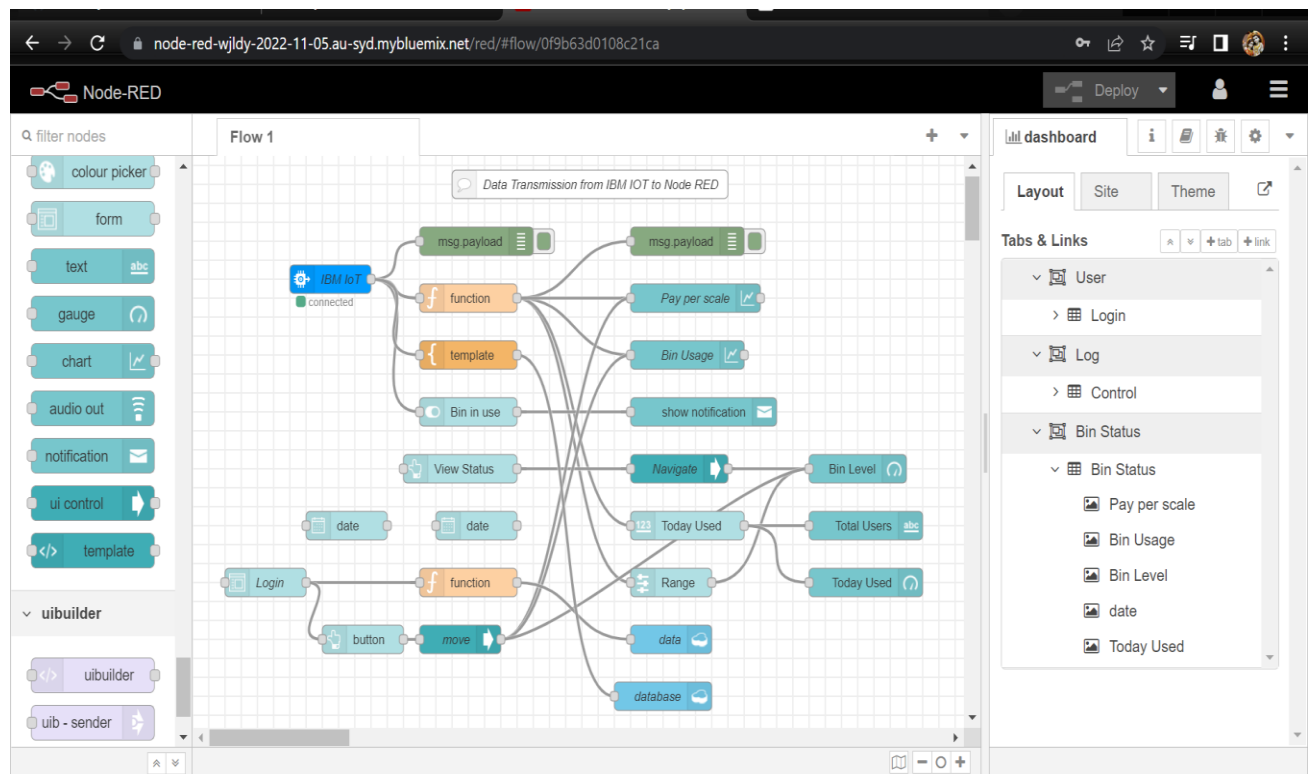


## Delivery of Sprint – 4

### Web UI Design and Deploy

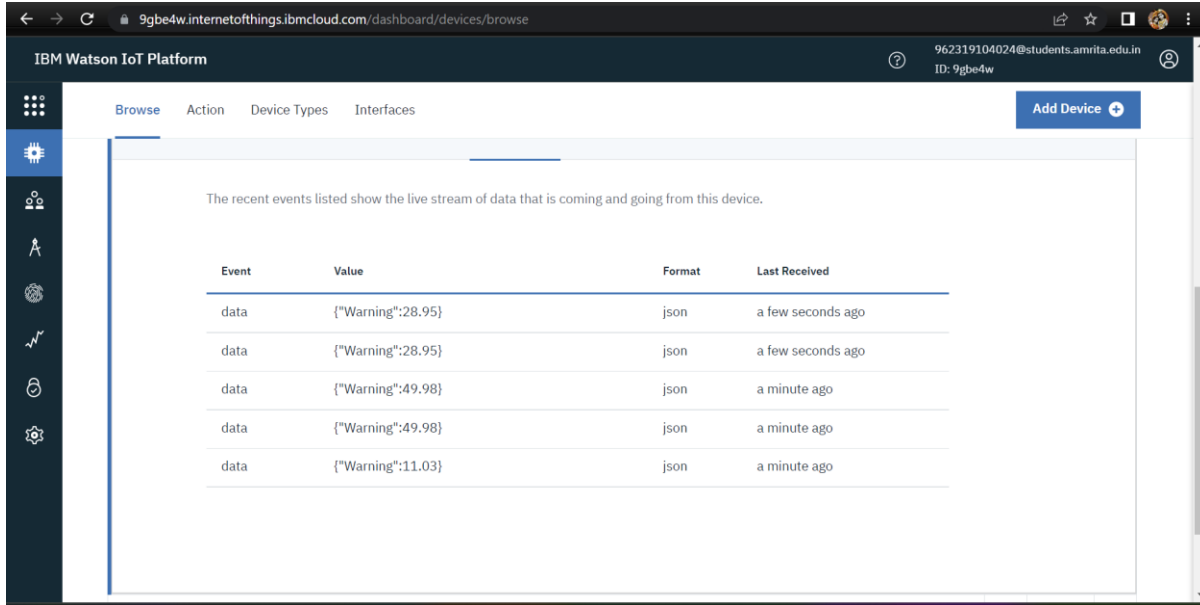
Date	5 November 2022
Team ID	PNT2022TMID51935
Project Name	Smart Waste Management for Metropolitan Cities - IOT

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





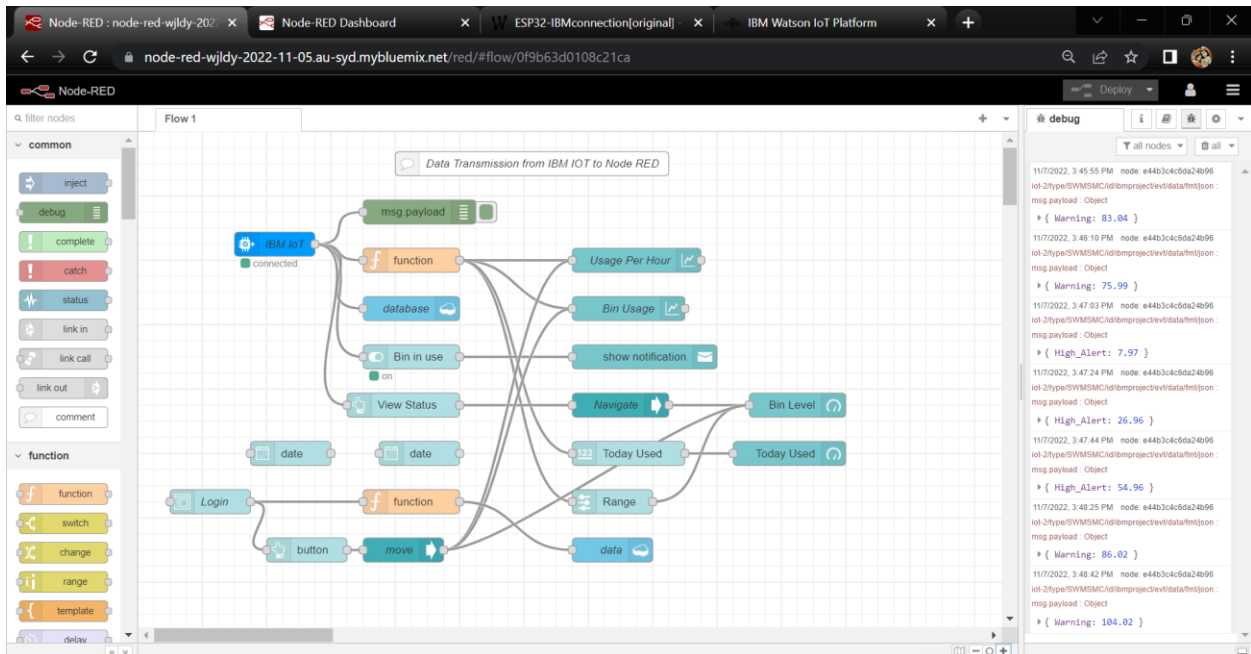
### 3. Data transfer to Watson IOT platform.



The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes "Browse", "Action", "Device Types", and "Interfaces". A sidebar on the left contains various icons for navigation. The main content area displays a table of recent events. The table has four columns: "Event", "Value", "Format", and "Last Received". The events listed are all "data" events with JSON values representing warning levels, in "json" format, received "a few seconds ago" or "a minute ago".

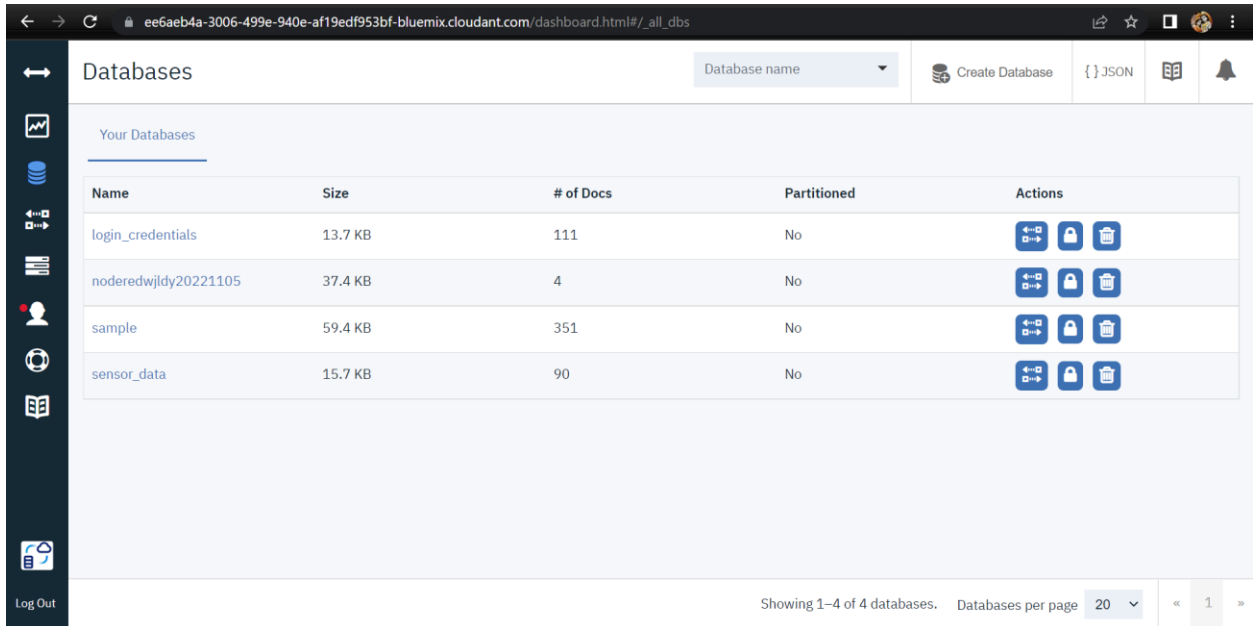
Event	Value	Format	Last Received
data	{"Warning":28.95}	json	a few seconds ago
data	{"Warning":28.95}	json	a few seconds ago
data	{"Warning":49.98}	json	a minute ago
data	{"Warning":49.98}	json	a minute ago
data	{"Warning":11.03}	json	a minute ago

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



The screenshot shows a Node-RED flow titled "Data Transmission from IBM IOT to Node RED". The flow starts with an "IBM IoT" node (connected) that feeds into a "msg payload" node. This node then branches into several parallel paths. One path goes through a "function" node to a "Usage Per Hour" node. Another path goes through a "database" node to a "Bin Usage" node. A third path goes through a "Bin in use" node to a "show notification" node. A fourth path goes through a "View Status" node to a "Navigate" node. A fifth path goes through a "date" node to a "Today Used" node. A sixth path goes through a "button" node to a "move" node, which then feeds into a "data" node. The flow also includes a "Login" node and a "Range" node. The right sidebar shows a "debug" console with a log of messages received from the IBM IoT platform, including warning levels and high alerts.

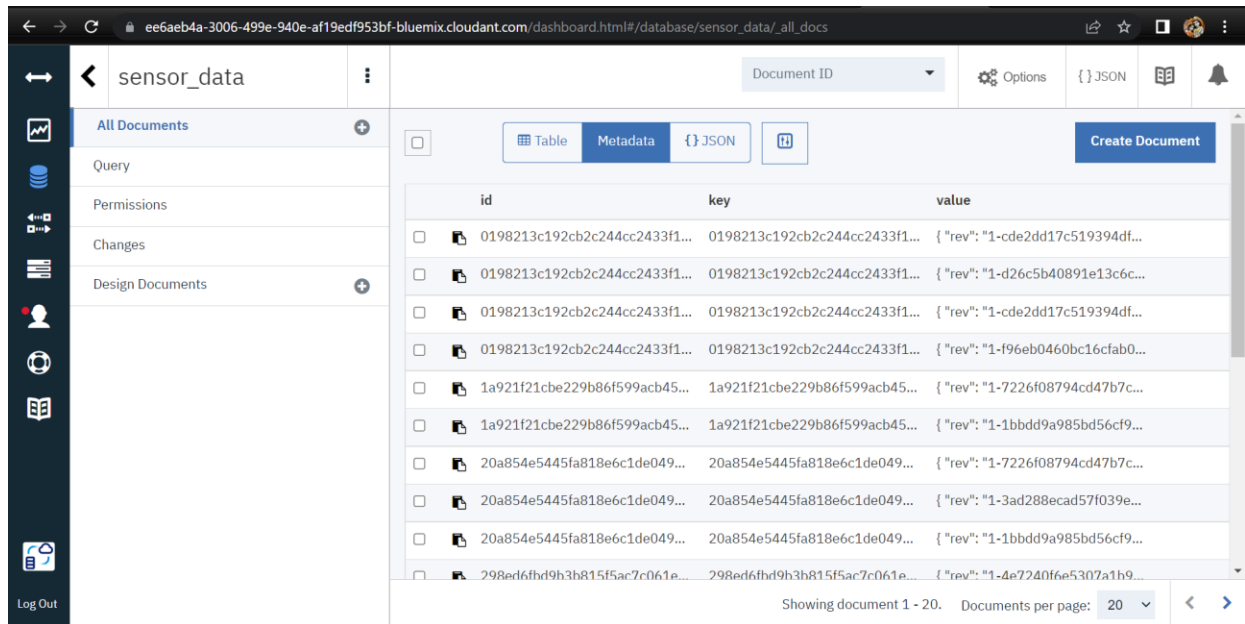
## 5 . Storing database in IBM cloudant DB.



The screenshot shows the IBM Cloudant Databases dashboard. The URL is `ee6aeb4a-3006-499e-940e-af19edf953bf-bluemix.cloudant.com/dashboard.html#/all_dbs`. The dashboard displays a table of databases under the heading "Your Databases".

Name	Size	# of Docs	Partitioned	Actions
login_credentials	13.7 KB	111	No	[Icons for view, edit, delete]
noderedwjldy20221105	37.4 KB	4	No	[Icons for view, edit, delete]
sample	59.4 KB	351	No	[Icons for view, edit, delete]
sensor_data	15.7 KB	90	No	[Icons for view, edit, delete]

At the bottom, it says "Showing 1-4 of 4 databases. Databases per page: 20".



The screenshot shows the IBM Cloudant document view for the "sensor\_data" database. The URL is `ee6aeb4a-3006-499e-940e-af19edf953bf-bluemix.cloudant.com/dashboard.html#/database/sensor_data/all_docs`. The view displays a table of documents with columns "id", "key", and "value".

id	key	value
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df..." }
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-d26c5b40891e13c6c..." }
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-cde2dd17c519394df..." }
0198213c192cb2c244cc2433f1...	0198213c192cb2c244cc2433f1...	{ "rev": "1-f96eb0460bc16cfab0..." }
1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-7226f08794cd47b7c..." }
1a921f21cbe229b86f599acb45...	1a921f21cbe229b86f599acb45...	{ "rev": "1-1bbdd9a985bd56cf9..." }
20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-7226f08794cd47b7c..." }
20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-3ad288ecad57f039e..." }
20a854e5445fa818e6c1de049...	20a854e5445fa818e6c1de049...	{ "rev": "1-1bbdd9a985bd56cf9..." }
298ed6fhd9b3b815f5ac7c061e...	298ed6fhd9b3b815f5ac7c061e...	{ "rev": "1-4e7240f6e5307a1b9..." }

At the bottom, it says "Showing document 1 - 20. Documents per page: 20".

## 6. Data is stored in JSON format

ee6aeb4a-3006-499e-940e-af19edf953bf-bluemix.cloudant.com/dashboard.html#database/sensor\_data/0198213c192cb2c244cc2433f1802b91

sensor\_data > 0198213c192cb2c244cc2433f1802b91

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


## 7. Web UI


node-red-wjldy-2022-11-05.au-syd.mybluemix.net/ui/#/!0?socketid=mTvbzmznbI9ri5aUmAACX



Log



Log Bin Status


Control

Bin in use 

Range 

Today Used  0 

date  06/11/2022 

 VIEW STATUS

