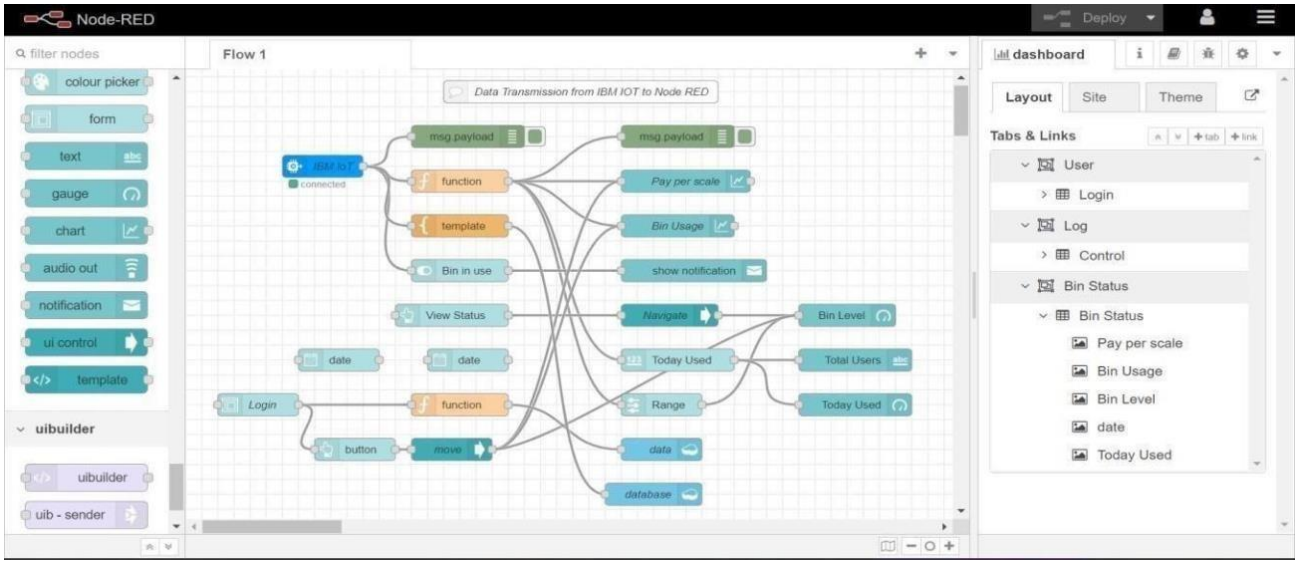
Sprint – 3

Node Red Connection to IBM Cloudant

Date	17 November 2022
Team ID	PNT2022TMID34030
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.


Node-RED
Deploy
filter nodes
Flow 1
dashboard
Layout
Site
Theme
Tabs & Links
colour picker
form
text
gauge
chart
audio out
notification
ui control
template
uibuilder
uibuilder
uib - sender
Data Transmission from IBM IOT to Node RED
IBM IoT
connected
msg.payload
function
template
Bin in use
View Status
date
Login
button
move
Pay per scale
Bin Usage
show notification
Navigate
Today Used
Range
data
database
Bin Level
Total Users
User
Login
Log
Control
Bin Status
Pay per scale
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Bin Level
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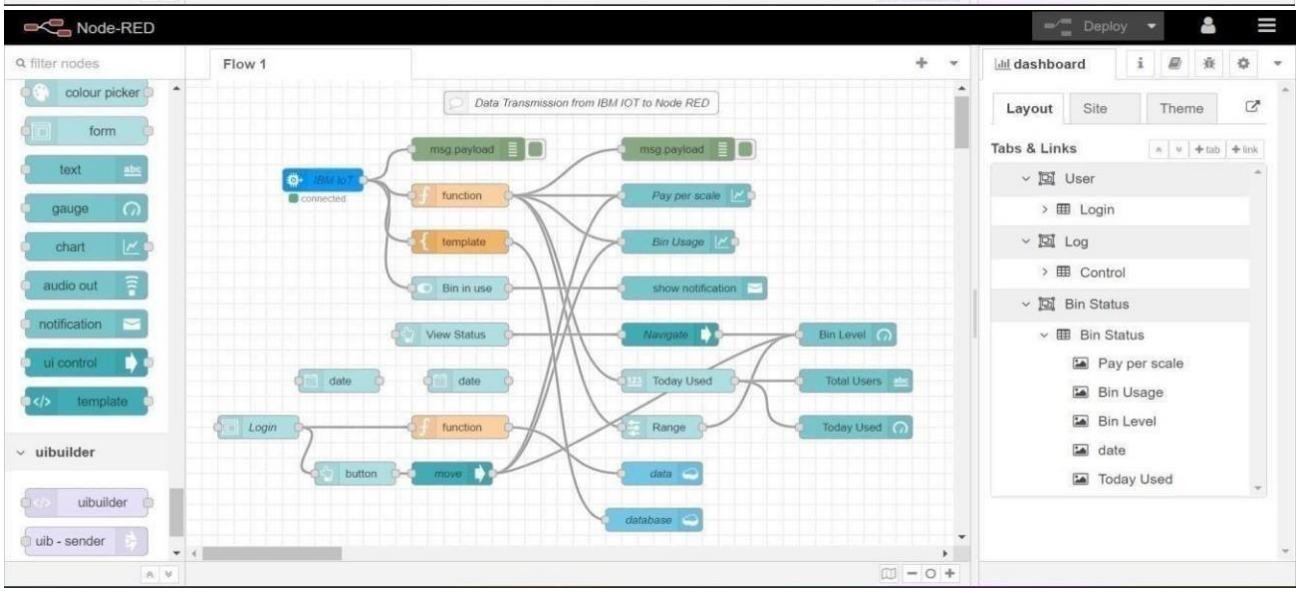
Today Used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Today Used
Range
data
database
Bin Level
Total Users
User
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Control
Bin Status
Pay per scale
Bin Usage
Bin Level
date
Today Used

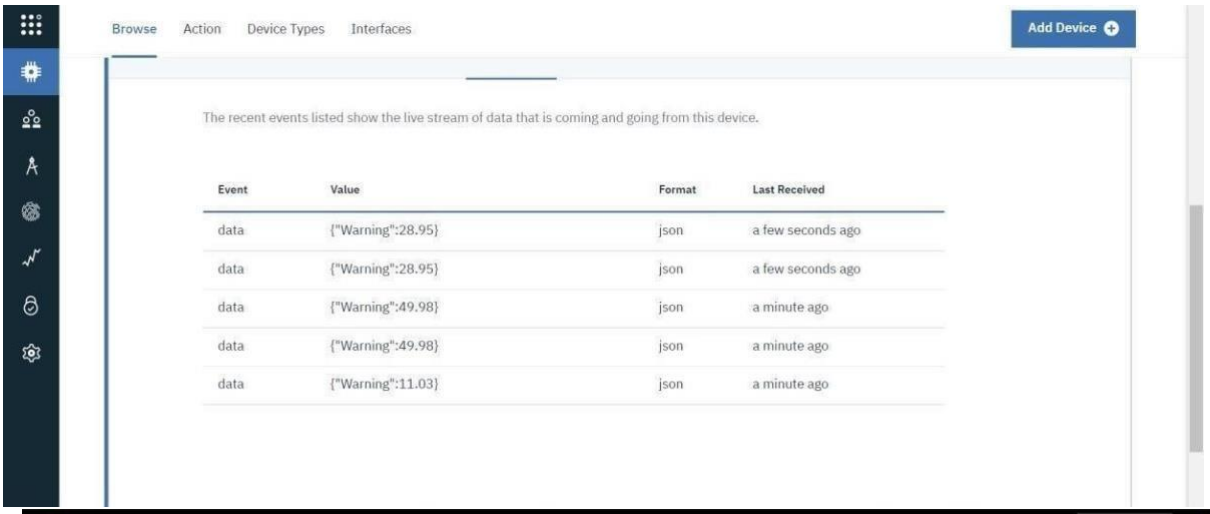
2. Simulate Wokwi connection to transmit data from wokwi account to IBM Watson IOT platform and then to Node Red dashboard.

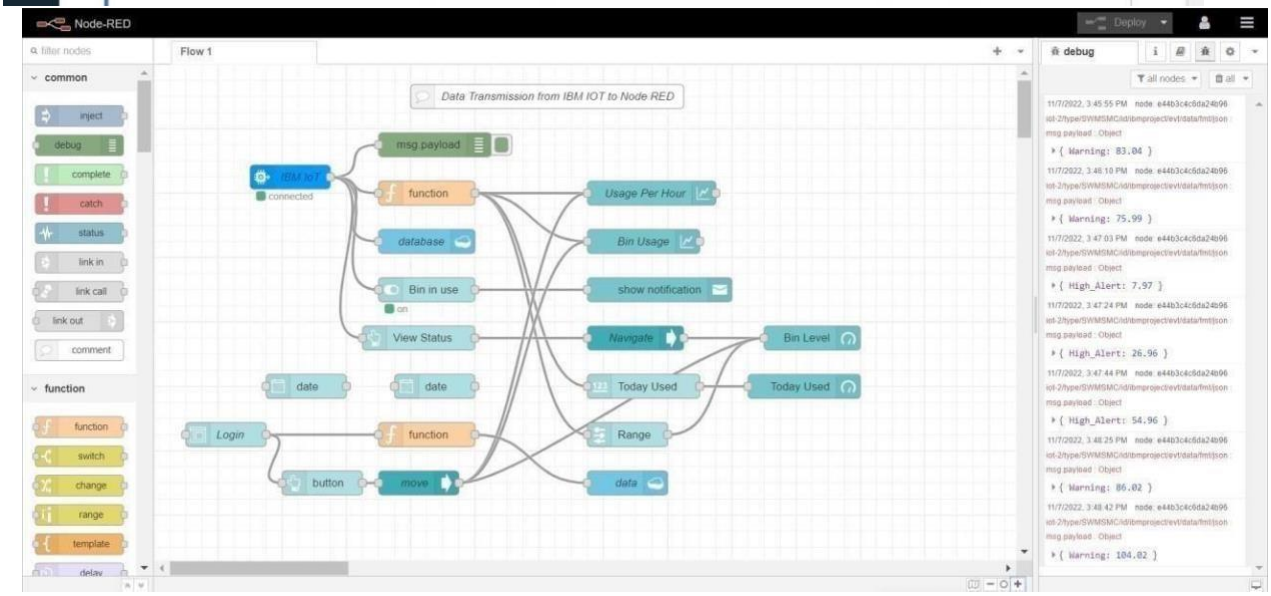
```
  if(cm <= 25)
{
digitalWrite(21,HIGH);
String payload = "{\"High_Alert\":";
payload += cm;
payload += " }";
Serial.print("\n");
Serial.print("Sending payload: ");
Serial.println(payload);

if (client.publish(publishTopic, (char*) payload.c_str()))        // if
{
Serial.println("Publish OK");
}
}
if(cm <= 50)
{
digitalWrite(22,HIGH);
String payload = "{\"Warning\":";
payload += cm ;
payload += " }";
Serial.print("\n");
```

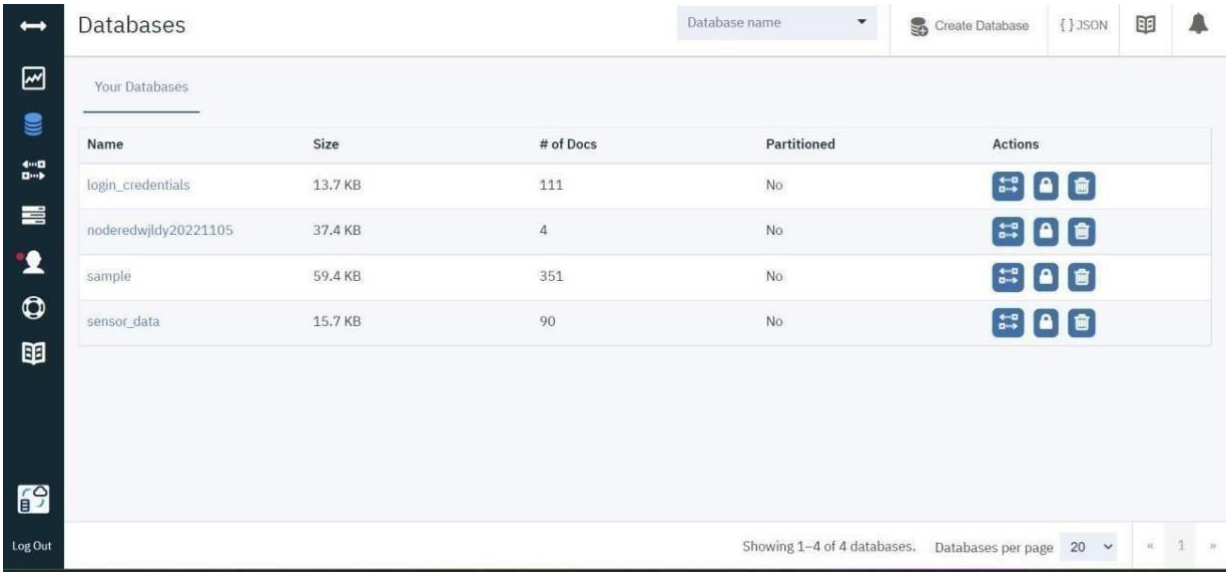
3. Data transfer to Watson IOT platform.

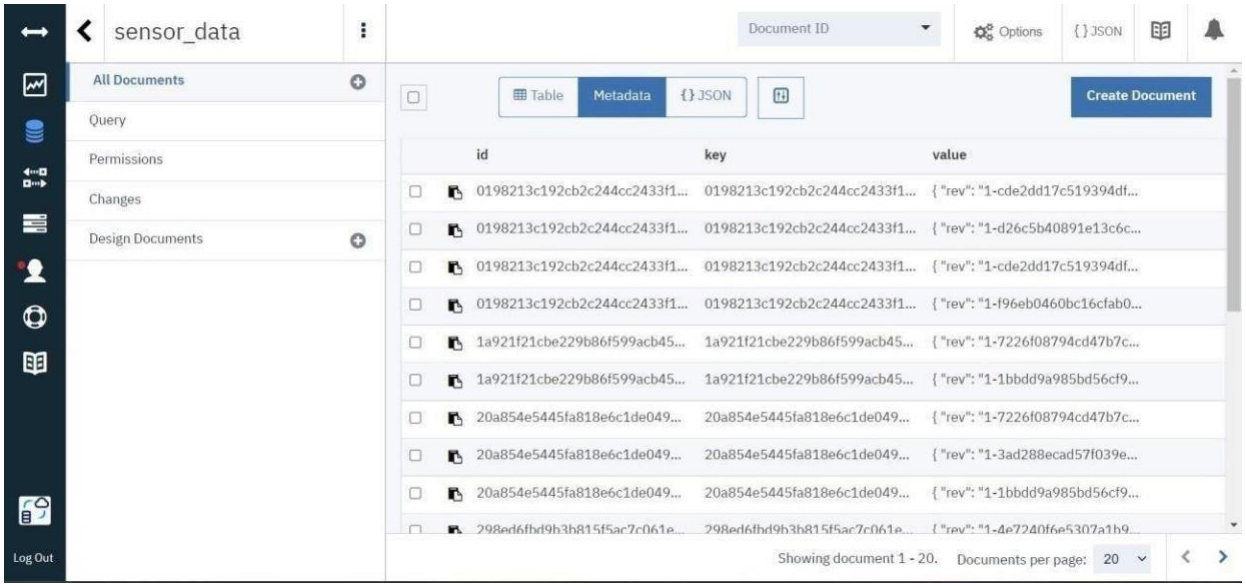
4. Data transfer from IBM Watson IOT platform and wokwi to Node red.





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
noderedwjldy20221105
37.4 KB
4
No
sample
59.4 KB
351
No
sensor_data
15.7 KB
90
No
Log Out
Showing 1–4 of 4 databases.
Databases per page
20
1


sensor_data
Document ID
Options
{ } JSON
All Documents
Query
Permissions
Changes
Design Documents
Table
Metadata
{ } JSON
Create Document
id
key
value
0198213c192cb2c244cc2433f1...
{ "rev": "1-cde2dd17c519394df...
{ "rev": "1-d26c5b40891e13c6c...
{ "rev": "1-f96eb0460bc16cfab0...
1a921f21cbe229b86f599acb45...
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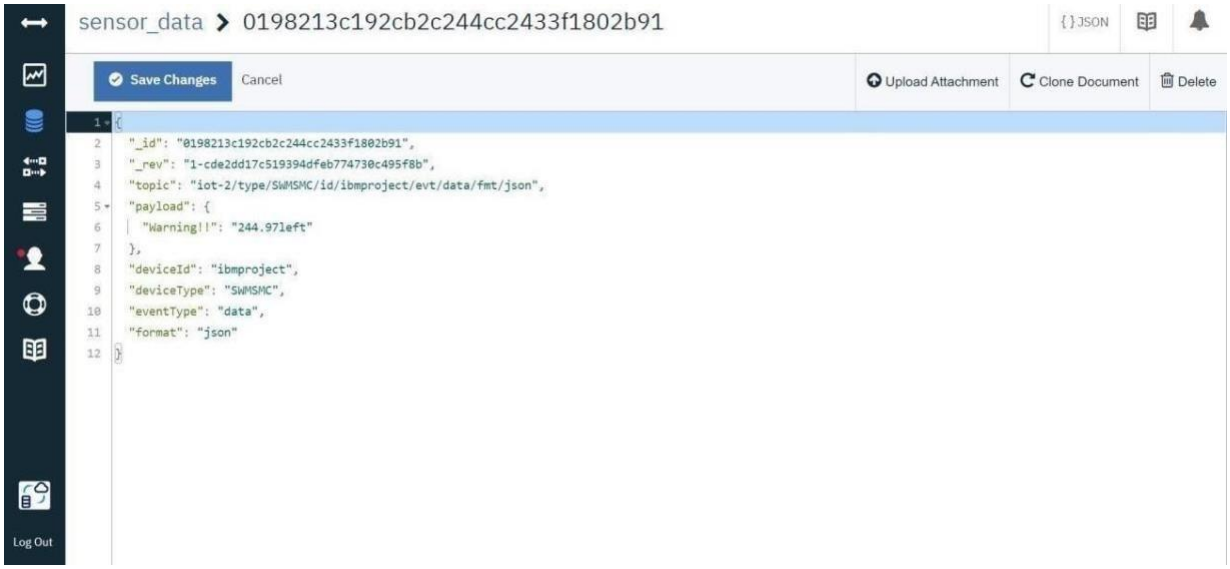
{ "rev": "1-1bbdd9a985bd56cf9...
20a854e5445fa818e6c1de049...
{ "rev": "1-3ad288ecad57f039e...
Log Out
Showing document 1 - 20.
Documents per page:
20

6. Data is stored in JSON format