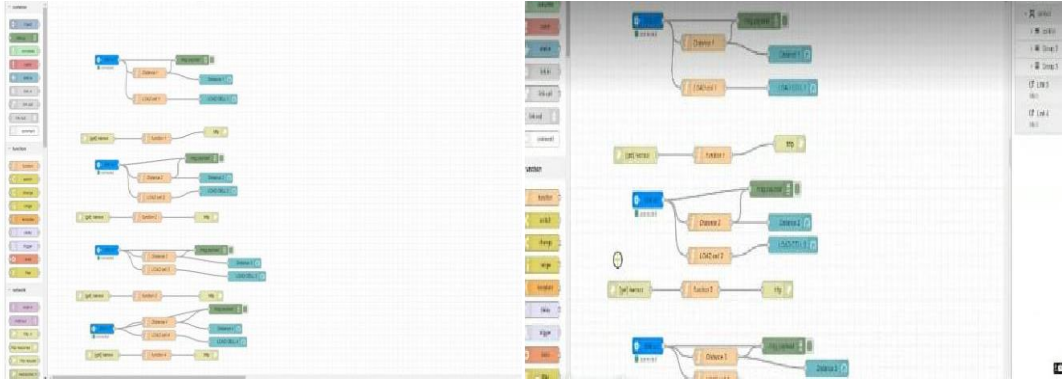


Delivery of Sprint-3

Node Red Connection to IBMCloudant

DATE	10 November 2022
TEAM ID	PNT2022TMID44233
PROJECT NAME	PROJECT-SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITIAN CITIES

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

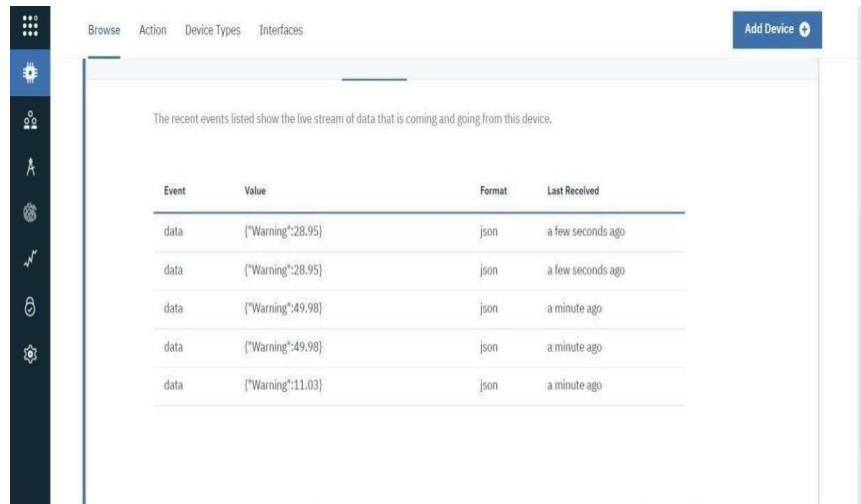


2. Wokwi connection to transmit data from wokwi account to IBM Watson IOT platform and then to Node Red dashboard.

The image shows the Wokwi IDE interface. On the left, the code for 'esp32-blink.ino' is displayed, showing a setup for an ESP32 microcontroller with a PIR motion sensor. The code includes a loop that checks for motion and publishes data to an MQTT topic. On the right, the 'Simulation' window shows a 3D model of the ESP32 board with the PIR sensor. Below the model, the simulation output log displays the following messages:

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

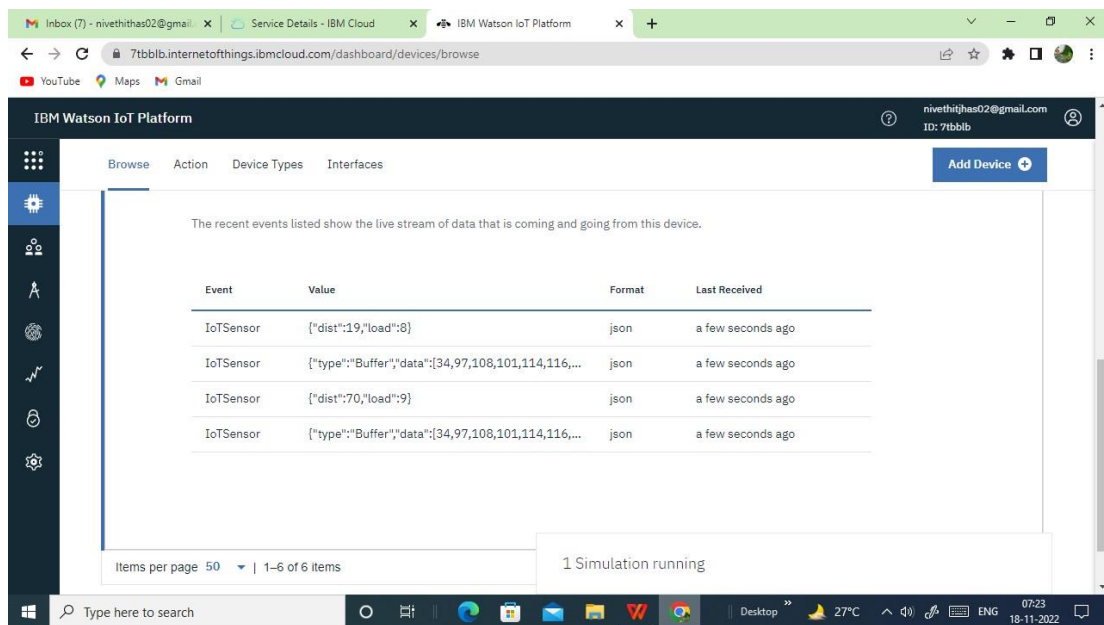
3.Data transfer from IBM Watson IOT platform and wokwi to Node red.



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. The main content area displays a table of recent events. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. The events are listed as follows:

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 to python script



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. The main content area displays a table of recent events. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. The events are listed as follows:

Event	Value	Format	Last Received
IoTSensor	["dist":19,"load":8]	json	a few seconds ago
IoTSensor	["type":"Buffer","data":[34,97,108,101,114,116,...]	json	a few seconds ago
IoTSensor	["dist":70,"load":9]	json	a few seconds ago
IoTSensor	["type":"Buffer","data":[34,97,108,101,114,116,...]	json	a few seconds ago

At the bottom of the dashboard, there is a status bar showing 'Items per page 50' and '1-6 of 6 items'. A notification at the bottom right indicates '1 Simulation running'.

IBM Watson IoT Platform

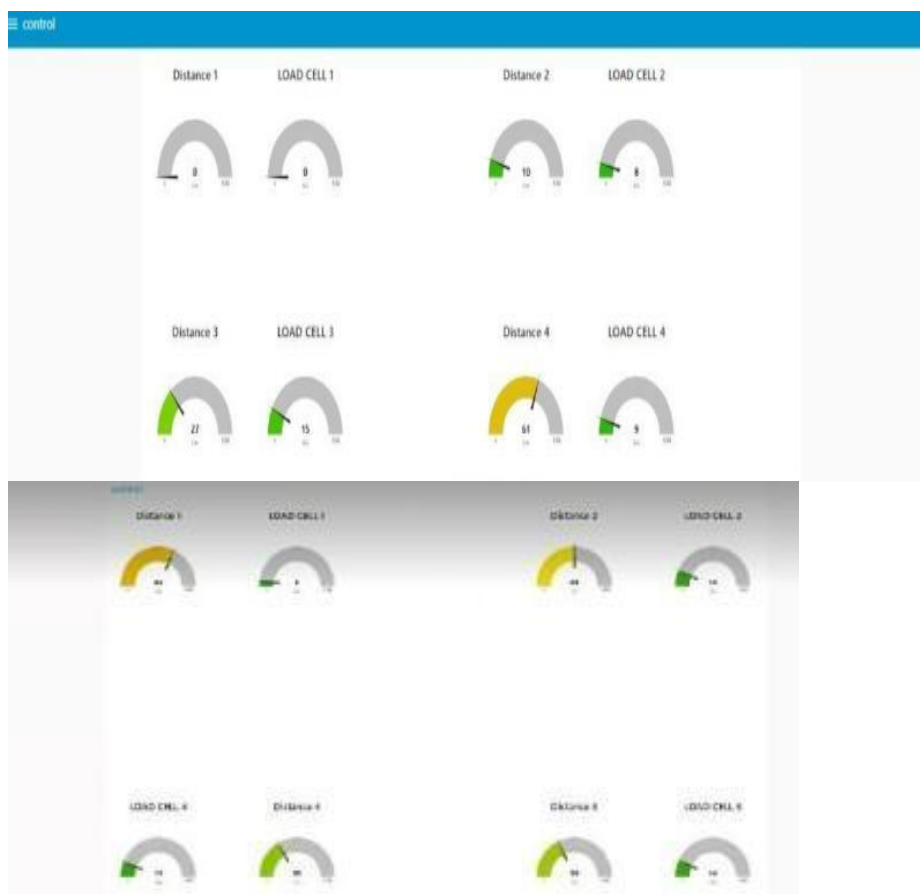
The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
IoTSensor	{"dist":19,"load":8}	json	a few seconds ago
IoTSensor	{"type":"Buffer","data":[{"34,97,108,101,114,116,...}	json	a few seconds ago
IoTSensor	{"dist":70,"load":9}	json	a few seconds ago
IoTSensor	{"type":"Buffer","data":[{"34,97,108,101,114,116,...}	json	a few seconds ago

Items per page 50 | 1-6 of 6 items

1 Simulation running

5. Web application



11:30  

 VoLTE1  27% 

Smart Waste Management

Monitoring layout

BIN 1|

Location Thanjavur

Distance 7

Load cell 11.5

Risk Warning: collect now