

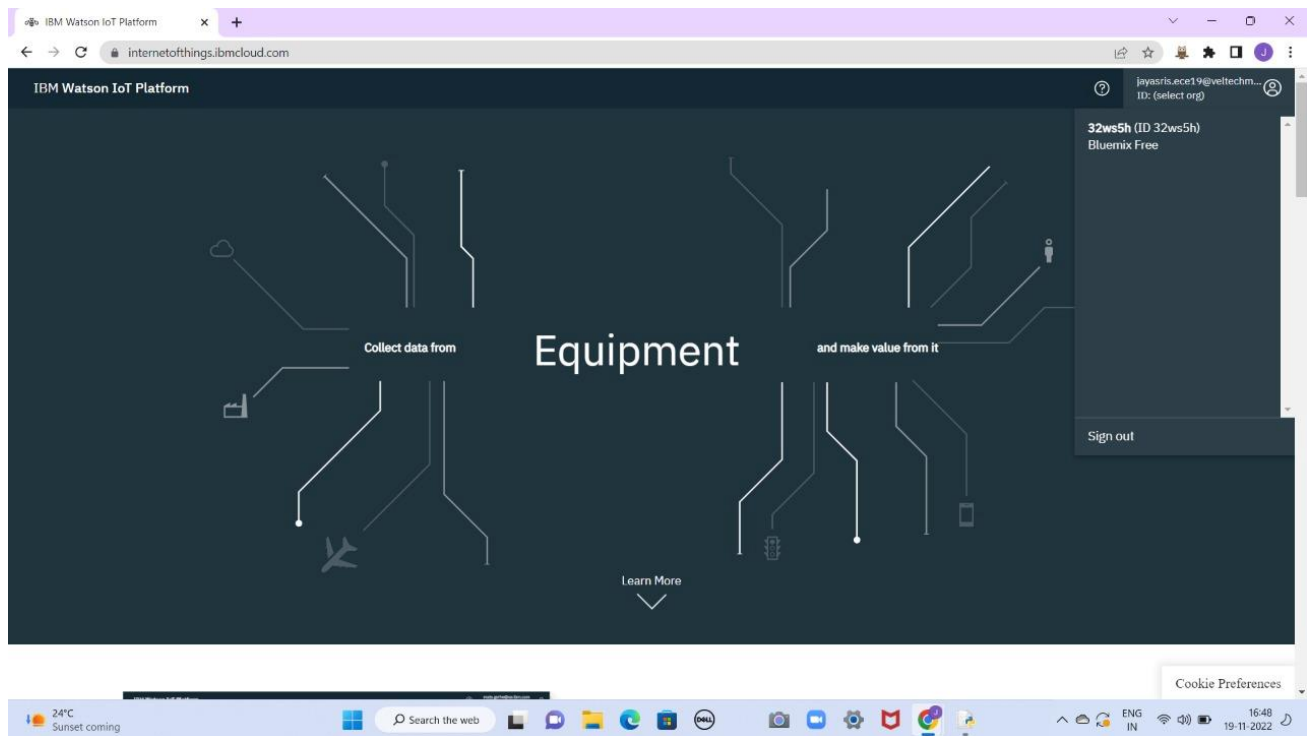
## SPRINT DELIVERY – 2

Date	7 November 2022
Team ID	PNT2022TMID22430
Project Name	Smart Waste Management System for Metropolitan Cities

**Functional Requirement:** Software (create device in the iot watson platform, workflow for iot scenarios using local node red).

**User story:** USN – 2

**STEP-1:** At First, User has to sign in to IBM Watson IOT Platform.



**STEP-2:** After sign in, User needs to Browse the Device details i.e., Device ID, Device type, Date added, Added by and Connection Status.

IBM Watson IoT Platform

Search by Device ID

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
554517	Disconnected	Ultrasonic_sensor	Device	Oct 30, 2022 7:04 PM	
sensor12345	Disconnected	Sensor	Device	Nov 3, 2022 11:21 PM	

Items per page 50 | 1-2 of 2 Items

1 of 1 page

1 Simulation running

Device Information

Device ID: 554517

Device Type: Ultrasonic\_sensor

Date Added: Oct 30, 2022 7:04 PM

Added By: jayasris.ece19@veltechnmultitech.org

Connection Status: Disconnected

**STEP-3:** Now, User needs to Create a simulation Using type of Device and save it in Events.

IBM Watson IoT Platform

criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device ID	Status	Device Type	Class ID
554517	Disconnected	Ultrasonic_sensor	Device

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

Event	Value	Format	Last Received
event_1	{"binlevel":49,"binweight":42}	json	a few seconds ago

Device Type: Ultrasonic\_sensor

Events 1

Event type name: event\_1

Schedule: 5 Every Minute

Payload

```
0 {
1   "binlevel": random(0, 100),
2   "binweight": random(0, 100)
3 }
4
```

Upload a CSV file

Cancel Save

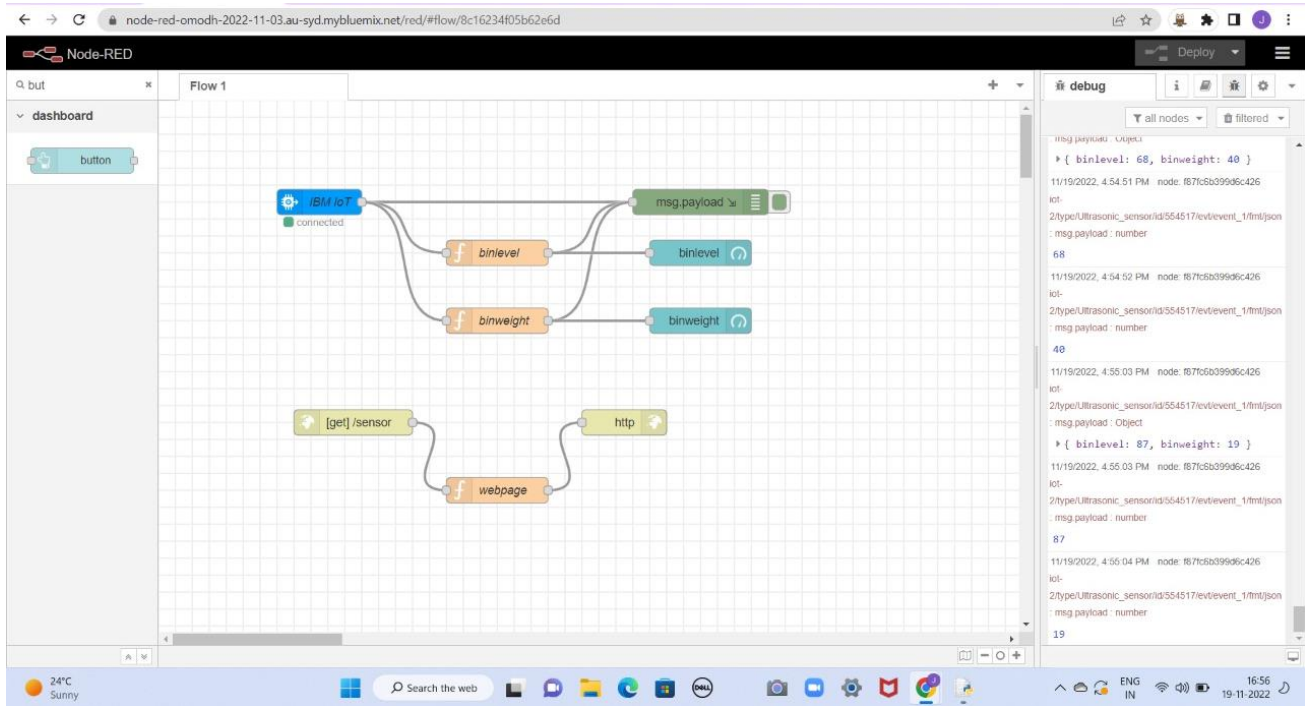
**STEP-4:** Further Check all the simulation which has been Uploaded in IBM Watson IOT Platform.

The screenshot displays the IBM Watson IoT Platform interface. 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 shows a list of devices. The first device, '554517', is an 'Ultrasonic\_sensor' and is 'Disconnected'. It was last seen on 'Oct 30, 2022 7:04 PM'. Below the device header, there are tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Recent Events' tab is selected, showing a table of recent data points. The table has columns for 'Event', 'Value', 'Format', and 'Last Received'. Below the table, there is a note: 'The recent events listed show the live stream of data that is coming and going from this device.'

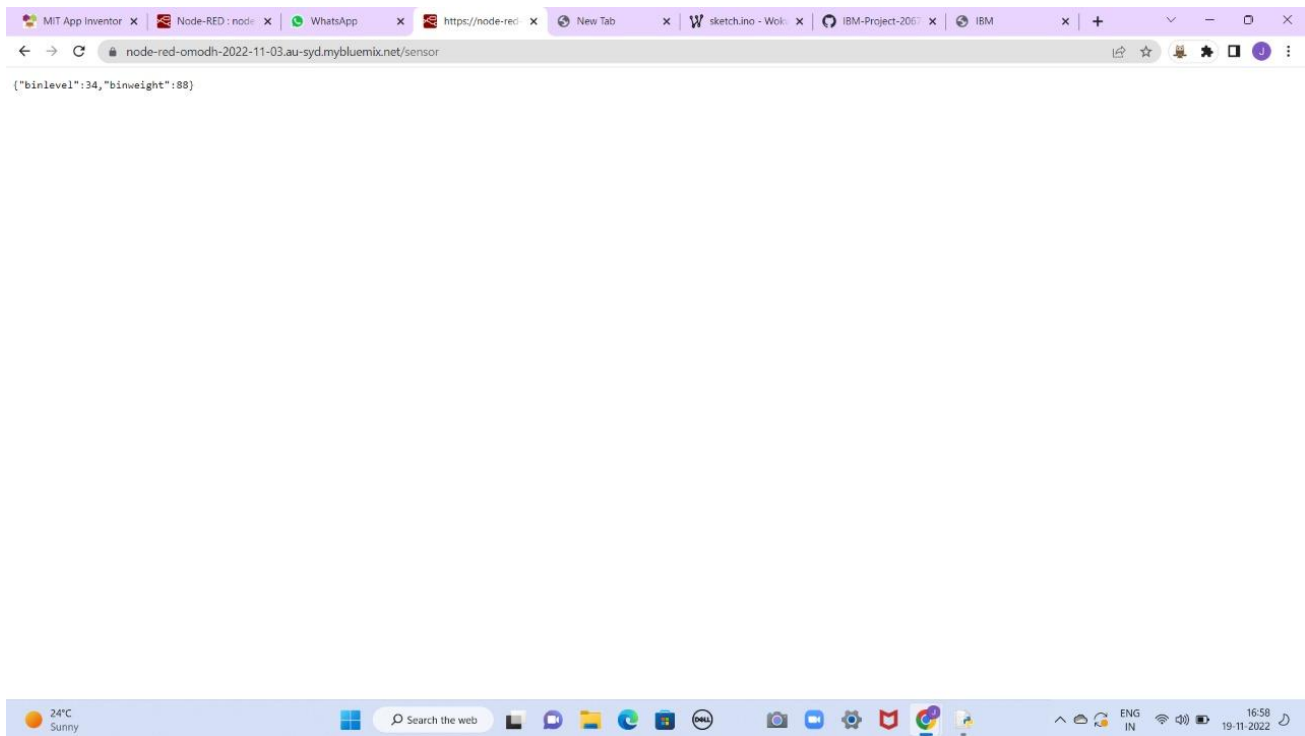
Event	Value	Format	Last Received
event_1	{"binlevel":13,"binweight":61}	json	a few seconds ago
event_1	{"binlevel":49,"binweight":46}	json	a few seconds ago
event_1	{"binlevel":5,"binweight":29}	json	a few seconds ago
event_1	{"binlevel":3,"binweight":99}	json	a few seconds ago
event_1	{"binlevel":49,"binweight":42}	json	a minute ago

Below the first device, a second device 'sensor12345' is partially visible, also 'Disconnected'. At the bottom right, a status bar indicates '1 Simulation running'. The bottom of the image shows a Windows taskbar with various application icons and system information like '24°C Sunny' and the date '19-11-2022'.

**STEP-5:** Connect Node-RED setup for data transmission from IBM Watson IOT platform to Node-RED dashboard & the given values will be displayed at the right side of the Screen.



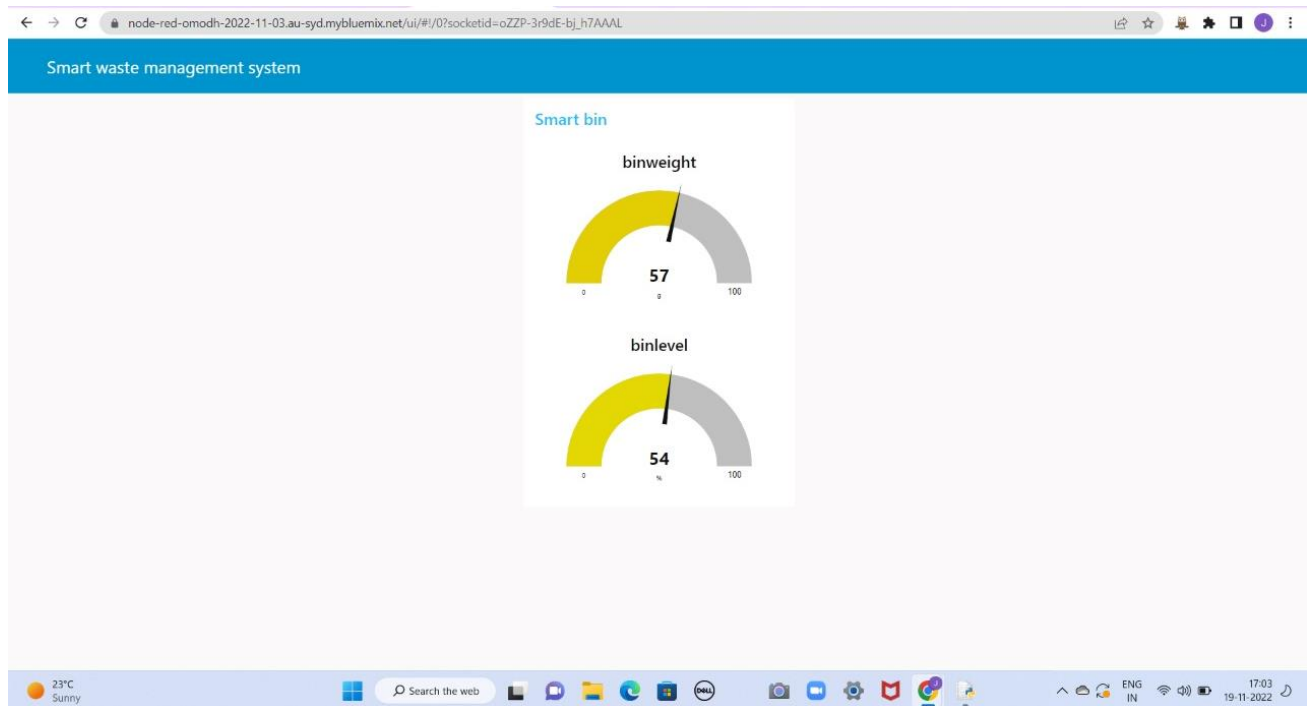
**STEP-6:** Further it shows the Random IBM simulated values from IBM device.



**STEP-7:** The below link is regarding Simulation of Node-RED and Simulated Values From IBM Device.

<https://node-red-omodh-2022-11-03.au-syd.mybluemix.net/sensor>

**STEP-8:** Finally, it shows Output of Smart Bin in Smart Waste Management System (Bin Weight & Bin Level).



**STEP-9:** The below link is regarding the final output of Smart Bin.

<https://node-red-omodh-2022-11-03.au-syd.mybluemix.net/ui>