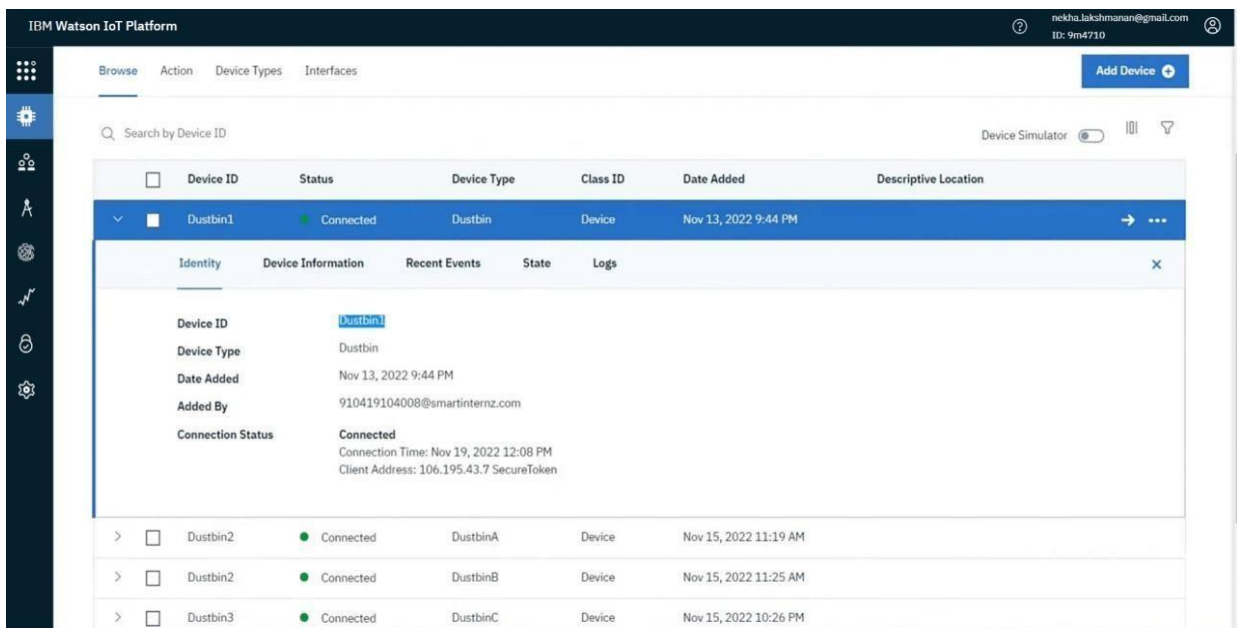


CODING & SOLUTIONING

1. Configuration of the IBM Watson IOT Platform

In the IBM Watson IOT Platform, we have created four dustbins. These four dustbins are successfully connected to the IBM Watson cloud.



Development of the Python Script

Publishing the data to the IBM Watson Platform by developing the python script. In this python code we constantly entered the longitude and latitude values. This code is composed of organization ID, type ID, device ID and authentication token for connecting to IBM IOT platform. We have used a while loop. in this while loop we gave some random values for the bin level latitude and longitude. We also used if else, to know whether the bin level is full or not.

```

Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 19:29:22) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Dustbin 1.py =====
2022-11-19 11:57:34,583 ibmiotf.device.Client INFO Connected successfu
lly: d:08mif4:Dustbin:Dustbin1
Anna Nagar,Madurai,Tamilnadu
published Level of bin = 40% Load = 100% Latitude = 10.9368 Longitude = 78.13
66
100%
40%

Anna Nagar,Madurai,Tamilnadu
published Level of bin = 40% Load = 100% Latitude = 10.9368 Longitude = 78.13
66
100%
40%

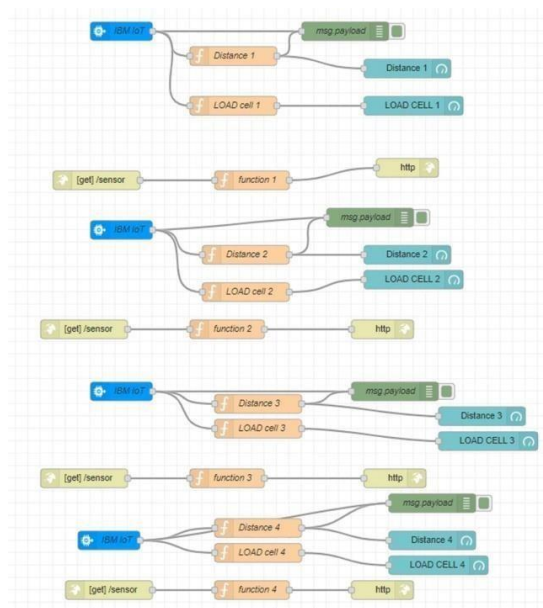
Anna Nagar,Madurai,Tamilnadu
published Level of bin = 40% Load = 40% Latitude = 10.9368 Longitude = 78.136
6
40%
40%

Anna Nagar,Madurai,Tamilnadu
published Level of bin = 40% Load = 40% Latitude = 10.9368 Longitude = 78.136
6
40%
40%

```

2. Creation of the Node Red Service

In Node Red, we have pinned the IBM IOT, to transfer the data to cards. These are the building blocks we have fixed. We fixed 4 IBM IOT's according to our dustbins.



3. Creation of the Website Dashboard

We have created the website dashboard. In the dashboard, we can see the real data for the python script. These values are randomly shifting from the data in the python script.

control

