

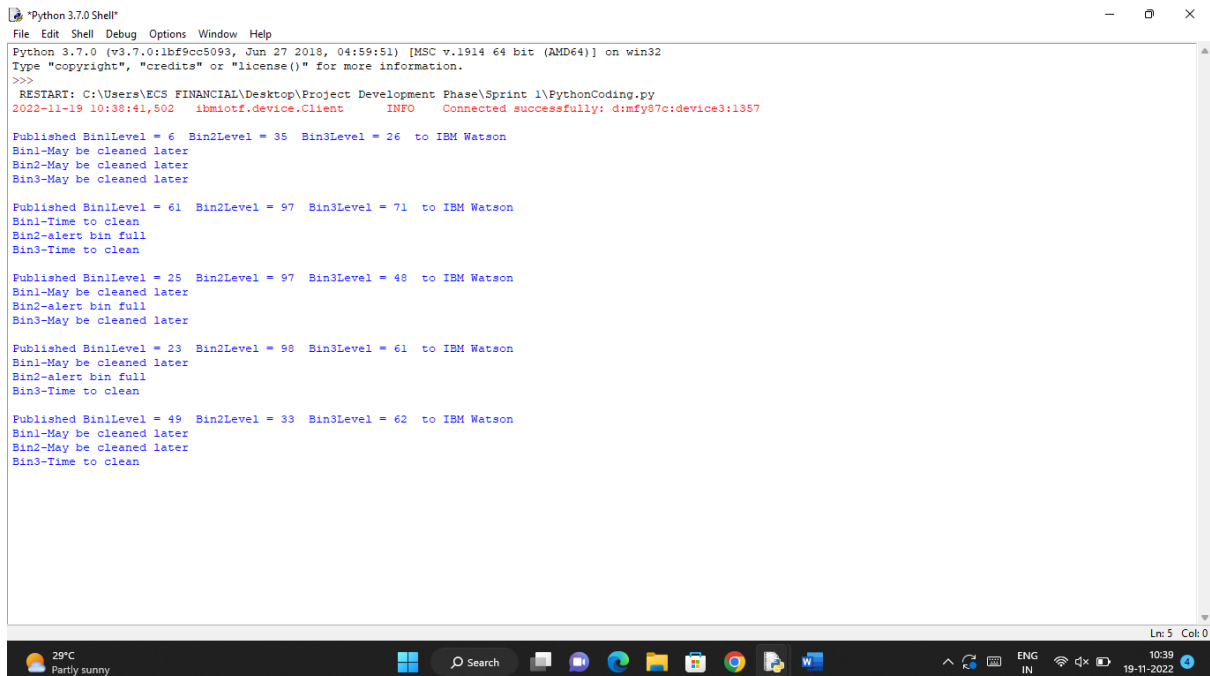
PROJECT DEVELOPMENT PHASE

SPRINT-4

TEAM ID	PNT2022TMID37162
PROJECT NAME	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES
TEAM MEMBERS	ROHIT C SIVARAJ V RAM KUMAR D SRIRAM B

LOOKING ON THE OVERALL FLOW OF DATA FROM CODE TO IBM WATSON , NODE RED DASHBOARD AND MIT APP INVENTOR:-

PYTHON CODE RUNNING:-



```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (tags/v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:\Users\ECS FINANCIAL\Desktop\Project Development Phase\Sprint 1\PythonCoding.py
2022-11-19 10:38:41,502 ibmiotf.device.Client INFO Connected successfully: dimfy87c:device3:1357

Published Bin1Level = 6 Bin2Level = 35 Bin3Level = 26 to IBM Watson
Bin1-May be cleaned later
Bin2-May be cleaned later
Bin3-May be cleaned later

Published Bin1Level = 61 Bin2Level = 97 Bin3Level = 71 to IBM Watson
Bin1-Time to clean
Bin2-alert bin full
Bin3-Time to clean

Published Bin1Level = 25 Bin2Level = 97 Bin3Level = 48 to IBM Watson
Bin1-May be cleaned later
Bin2-alert bin full
Bin3-May be cleaned later

Published Bin1Level = 23 Bin2Level = 98 Bin3Level = 61 to IBM Watson
Bin1-May be cleaned later
Bin2-alert bin full
Bin3-Time to clean

Published Bin1Level = 49 Bin2Level = 33 Bin3Level = 62 to IBM Watson
Bin1-May be cleaned later
Bin2-May be cleaned later
Bin3-Time to clean
```

IBM WATSON DEVICE OUPUT:-

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes tabs for Service Details - IBM Cloud, IBM Watson IoT Platform, Node-RED: node-red-aomre-20, and MIT App Inventor. The main content area displays a list of devices. Device 1357 is selected and its details are shown in a modal window. The details include:

- Device ID: 1357
- Device Type: device3
- Date Added: Nov 13, 2022 12:23 PM
- Added By: 310119104068@smartintrnz.com
- Connection Status: Connected
- Connection Time: Nov 19, 2022 10:38 AM
- Client Address: 183.82.25.71 SecureToken

The bottom status bar shows the temperature as 29°C, weather as Partly sunny, and the time as 10:39 on 19-11-2022.

The screenshot shows the IBM Watson IoT Platform dashboard with the 'Recent Events' tab selected for device 1357. The events are listed in a table:

Event	Value	Format	Last Received
IoTSensor	{"Bin1Level":99,"Bin2Level":63,"Bin3Level":60}	json	a few seconds ago
IoTSensor	{"Bin1Level":87,"Bin2Level":31,"Bin3Level":68}	json	a few seconds ago

The bottom status bar shows the temperature as 29°C, weather as Partly sunny, and the time as 10:40 on 19-11-2022.

NODE RED OUTPUT:-

The screenshot displays the Node-RED web interface in a browser. The top navigation bar includes links to 'Service Details - IBM Cloud', 'IBM Watson IoT Platform', 'Node-RED : node-red-aomre-20...', and 'MIT App Inventor'. The address bar shows the URL: `node-red-aomre-2022-11-11.mybluemix.net/red/#flow/e6fd724dad5f7f7e`.

The main workspace shows a flow diagram with the following components:

- Flow 1:** Starts with an 'Area Number 570' node, followed by a 'connected' status indicator.
- Flow 3:** Contains a series of nodes: 'wam1', 'Bin1', 'Bin2', 'Bin3', 'wam2', and 'wam3'. These are connected to 'Bin1 Level', 'Bin2 Level', and 'Bin3 Level' nodes, which then connect to a 'msg.payload' node.
- Flow 4:** Contains a 'Mit App' node, a 'Sensor' node, and an 'http' node.

The right-hand 'debug' console shows a list of messages with timestamps and payloads. The messages are as follows:

Timestamp	Node ID	Message
11/19/2022, 10:40:24 AM	node: d084ae21e3b11c28	iot-2/type/device3id/1357/evt/loTSensor/fmt/json : msg.payload : number
11/19/2022, 10:40:32 AM	node: d084ae21e3b11c28	iot-2/type/device3id/1357/evt/loTSensor/fmt/json : msg.payload : Object
11/19/2022, 10:40:32 AM	node: d084ae21e3b11c28	iot-2/type/device3id/1357/evt/loTSensor/fmt/json : msg.payload : number
11/19/2022, 10:40:32 AM	node: d084ae21e3b11c28	iot-2/type/device3id/1357/evt/loTSensor/fmt/json : msg.payload : number
11/19/2022, 10:40:32 AM	node: d084ae21e3b11c28	iot-2/type/device3id/1357/evt/loTSensor/fmt/json : msg.payload : number

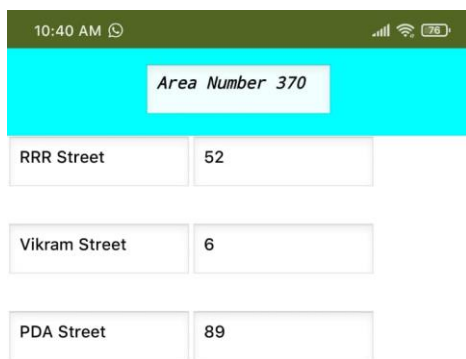
NODE RED DASHBOARD OUTPUT:-

The screenshot displays the Node-RED Dashboard web interface in a browser. The top navigation bar includes links to 'Service Details - IBM Cloud', 'IBM Watson IoT Platform', 'Node-RED : node-red-aomre-20...', 'Node-RED Dashboard', and 'MIT App Inventor'. The address bar shows the URL: `node-red-aomre-2022-11-11.mybluemix.net/ui/#/0?socketid=a2J-wlKg1DzYacmAAAT`.

The main workspace shows a dashboard titled 'Home' with a 'Default' tab. It displays three line graphs for 'Area Number 570':

- Bin1:** A line graph showing data points over time. The y-axis ranges from 0 to 100. The x-axis shows timestamps from 10:35:00 to 10:42:00. Below the graph, it says 'Bin1 Level 13'.
- Bin2:** A line graph showing data points over time. The y-axis ranges from 0 to 100. The x-axis shows timestamps from 10:35:00 to 10:42:00. Below the graph, it says 'Bin2 Level 53'.
- Bin3:** A line graph showing data points over time. The y-axis ranges from 0 to 100. The x-axis shows timestamps from 10:35:00 to 10:42:00. Below the graph, it says 'Bin3 Level 36'.

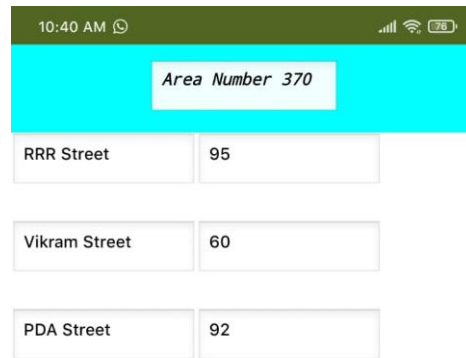
MIT APP INVENTOR (MOBILE APPLICATION) OUTPUT:-



10:40 AM

Area Number 370

RRR Street	52
Vikram Street	6
PDA Street	89



10:40 AM

Area Number 370

RRR Street	95
Vikram Street	60
PDA Street	92

RESULT:-

Thus the data is correctly flowing from code to all required places in correct order.