

## SPRINT- 4

<b>DATE</b>	14 NOVEMBER 2022
<b>TEAM ID</b>	PNT2022TMID25296
<b>PROJECT NAME</b>	SMART WASTE MANAGEMENT FOR METROPOLITAN CITIES-IOT

### WOWKI OUTPUT :

The screenshot shows the Wokwi IoT simulator interface. On the left, the Arduino IDE code is displayed, which includes the following key sections:

```

1 // Library for WiFi
2 #include <PubSubClient.h> // Library for MQTT
3 #include <LiquidCrystal_I2C.h>
4 LiquidCrystal_I2C lcd(0x27, 16, 4);
5
6 //----- credentials of IBM Accounts -----
7
8 #define Org "cbsej1" // IBM organisation id
9 #define DEVICE_TYPE "abcd" // Device type mentioned in the Watson IoT platform
10 #define DEVICE_ID "1234" // Device ID mentioned in the Watson IoT platform
11 #define TOKEN "12345678" // Token
12
13 //----- customize above values -----
14
15 char server[] = "messaging.internetofthings.ibmcloud.com"; // server name
16 char publishTopic[] = "iot-2/evt/data/evt/json"; // topic name and type of event perform
17 char topic[] = "iot-2/cmd/led/evt/string"; // cmd Represent type and command is to
18 char authMethod[] = "use-token-auth"; // authentication method
19 char token[] = "TOKEN";
20 char clientId[] = "id:" Org "/" DEVICE_TYPE "/" DEVICE_ID; //Client id
21
22 //-----
23
24 WiFiClient wifiClient; // creating instance for wifiClient
25 PubSubClient client(server, 1883, wifiClient);
26
27 #define ECHO_PIN 12
28 #define TRIG_PIN 13
29 float dist;
30
31 void setup()
32 {
33   Serial.begin(115200);
34   pinMode(10, OUTPUT); // Buzzer
35   pinMode(TRIG_PIN, OUTPUT);
36   pinMode(ECHO_PIN, INPUT);
37   //pin pinMode(13, OUTPUT);
38   pinMode(14, OUTPUT);
39
40   //initiate
41   pinMode(23, OUTPUT);
42   pinMode(2, OUTPUT);
43   pinMode(4, OUTPUT);
44   pinMode(15, OUTPUT);
45
46   lcd.init();
47   lcd.backlight();

```

The simulation on the right shows the ESP32-IBM NK board with a display screen displaying 'Inches 66.9 cm 169.9'. The console output shows the following messages:

```

Connecting to WiFi..WiFi connected, IP address: 10.10.0.2
Reconnecting MQTT client to cbsej1.messaging.internetofthings.ibmcloud.com
IBM subscribe to cmd OK

```

The screenshot shows the IBM Watson IoT Platform dashboard. The main view displays a table of devices, with the device 'abcd' (ID: 1234) highlighted. The device status is 'Disconnected'. The 'Recent Events' tab is selected, showing a table of events:

Event	Value	Format	Last
eventbatch11	{\"randomNumber\":81,\"level\":45,\"weight\":223}	json	a fe

A modal window is open for configuring a new event type named 'eventbatch11'. The configuration includes the following details:

- Device Type:** abcd
- Event type name:** eventbatch11
- Schedule:** 1 Every Minute
- Payload:**

```

0 {
1   \"randomNumber\": random(0,100),
2   \"level\": random(0,100),
3   \"weight\": random(0,1000)
4 }
5

```

The modal window also includes an 'Upload a CSV file' button and 'Cancel' and 'Save' buttons.

