**Assignment 4**

**WOKWI PROGRAM**

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| **Assignment Date** | **26 OCT 2022** |
| **Student Name** | **KANNANGI N** |
| **Student Roll Number** | **912019106007** |
| **Maximum Marks** | **2 Marks** |

Team ID : PNT2022TMID47935

**PROGRAM**

Smart Waste Management System for Metropolitan Cities ASSIGNMENT 4:

Write code and connections in wokwi for ultrasonic sensors.

Whenever distance is less than 100 ems send "alert" to ibm cloud and display in device recent events.

Upload document with wokwi share link and images of ibm cloud

**CODE•**

# include <WiFi.h>

# include <PubSubClient.h> WiFiClient wifiClient;

String data3;

#define ORG "4yi0vc"

#define DEV CE\_TYPE "nodeMcu"

#define DEV CE\_ID "Assignment4"

#define TOKEN "123456789"

#define speed 0.034

#define led 14

char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; char pubIishTopic[] = "iot-2/ evt/ Data/fmt/json";

char topic[] = "iot-2/cmd/home/fmt/String"; char authMethod[] = "use-token-auth";

char token[] = TOKEN;

char clientid[] = "d:" ORG ":" DEVICE\_TYPE ":" DEVICE\_ID; PubSubClient client(server, 1883, wifiClient);

void publishData();

const int trigpin=5 ; const int echopin=18; String command; String data="";

long duration; float dist;

void setup()

# {

Serial.begin( 115200); pinMode(led, OUTPUT); pinMode(trigpin, OUTPUT); pinMode(echopin,INPUT); wifiConnect(); mqttConnect();

# }

void loop() {

bool isNearby = dist < 100; digitalWrite(led , isNearby);

publishData(); delay(500);

if (!client.loop()) { mqttConnect();

# }

}

void wifiConnect() {

Serial.print("Connecting to "); Serial.print("Wifi"); W iFi.begin("Wokw i-GUEST", "", 6);

while (WiFi.status() != WL\_CONNECTED) { delay( 500);

Serial.print(".");

}





