

ASSIGNMENT 4

Date	4/10/22
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Project Name	Smart Waste Management System for metropolitan cities

Write code and connections in wokwi for ultrasonic sensor.

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

Upload document with wokwi share link and images of ibm cloud

CODE:


```

    pinMode(echopin, INPUT); wifiConnect();
    mqttConnect();
} void loop() { publishData();

    delay(500);

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

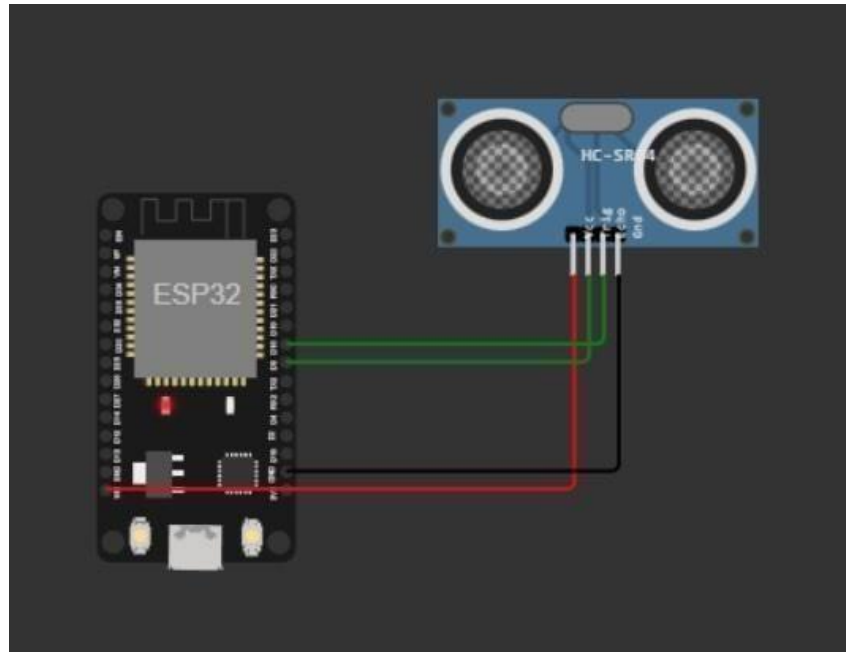
void wifiConnect() {
    Serial.print("Connecting to "); Serial.print("Wifi");
    WiFi.begin("Wokwi-GUEST", "", 6); while (WiFi.status() !=
    WL_CONNECTED) { delay(500); Serial.print(".");
    }
    Serial.print("WiFi connected, IP address: "); Serial.println(WiFi.localIP());
}

void mqttConnect() { if
(!client.connected()) {
    Serial.print("Reconnecting MQTT client to "); Serial.println(server); while
    (!client.connect(clientId, authMethod, token)) { Serial.print("."); delay(500);
    } initManagedDevice(); Serial.println(); } }

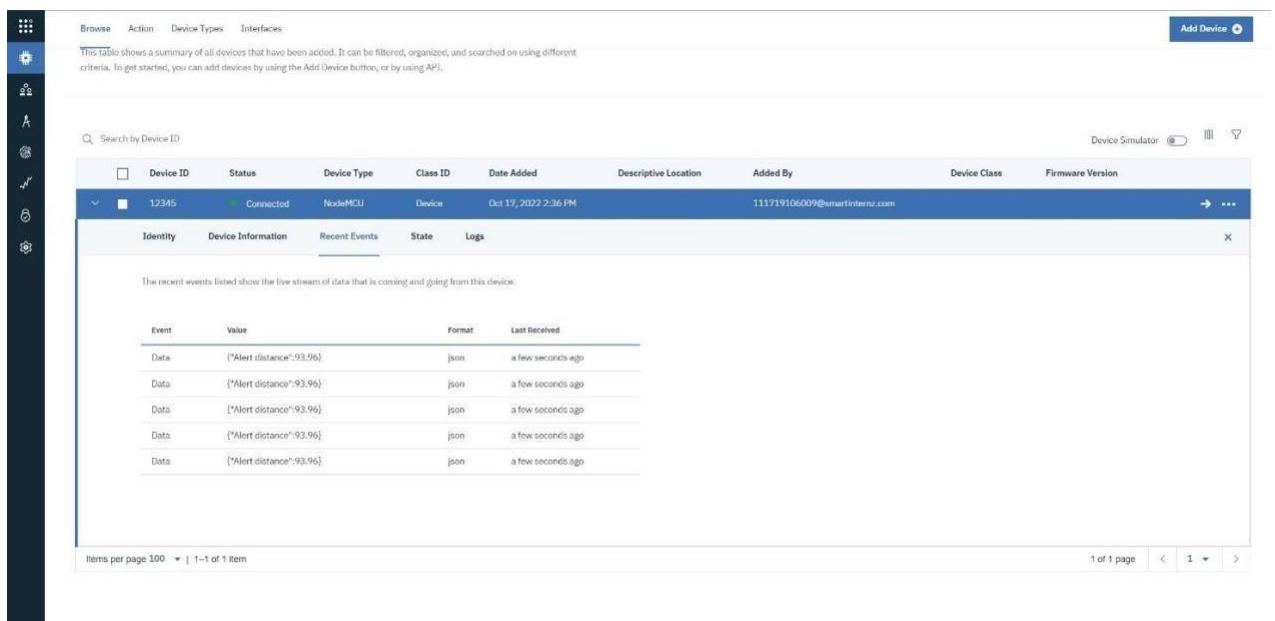
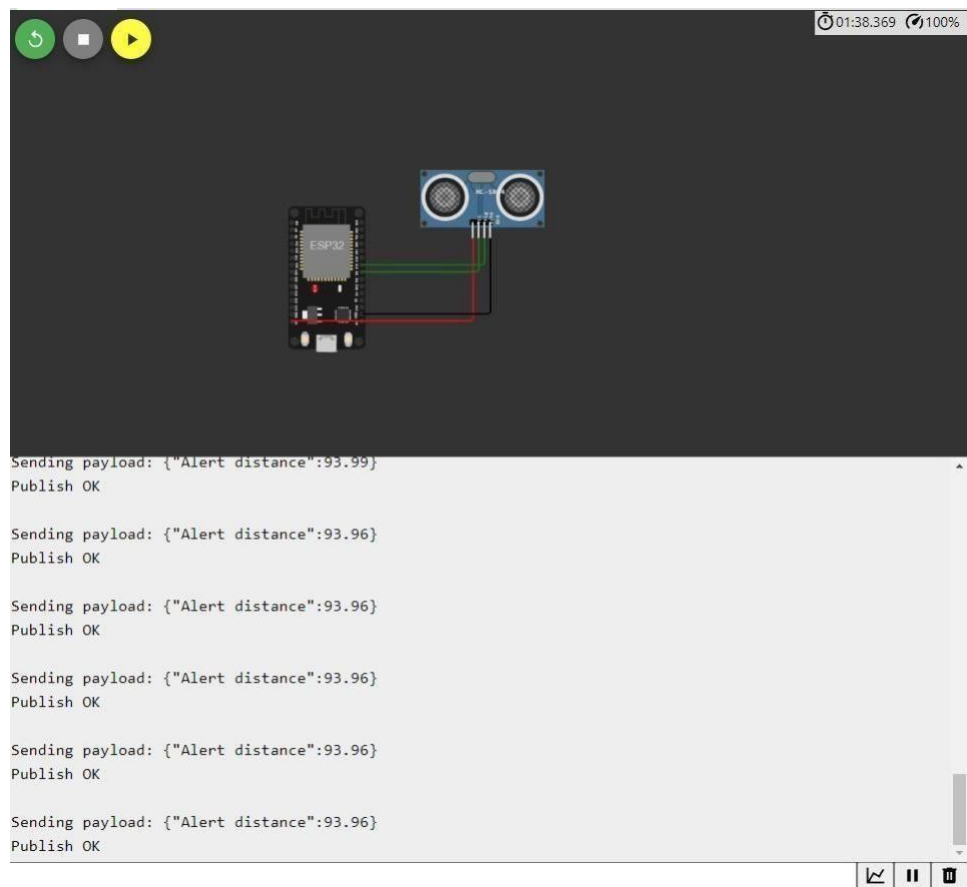
void initManagedDevice() { if
(client.subscribe(topic)) {
    // Serial.println(client.subscribe(topic)); Serial.println("subscribe to cmd
    OK");
    } else {
        Serial.println("subscribe to cmd FAILED"); } } void
publishData()
{ digitalWrite(trigpin, LOW); digitalWrite(trigpin, HIGH);

```

CONNECTIONS:



OUTPUT:



WOKWI LINK -

<https://wokwi.com/projects/346405970317935188>