

ASSIGNMENT 4:

Question-1:

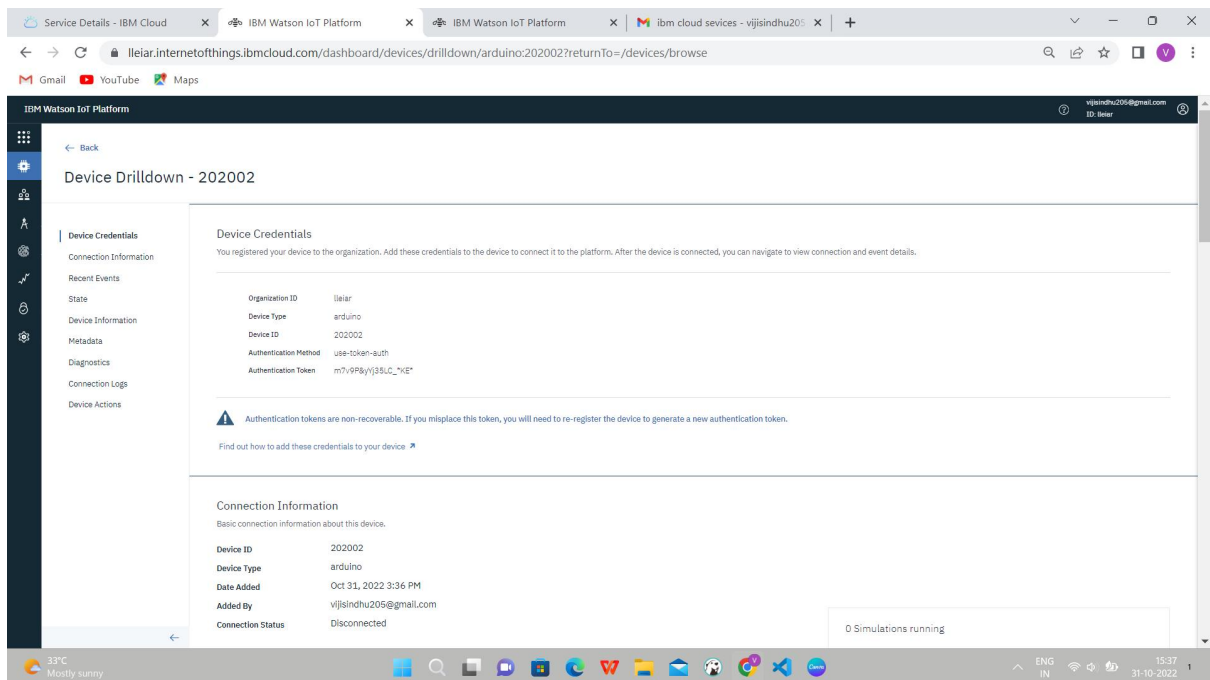
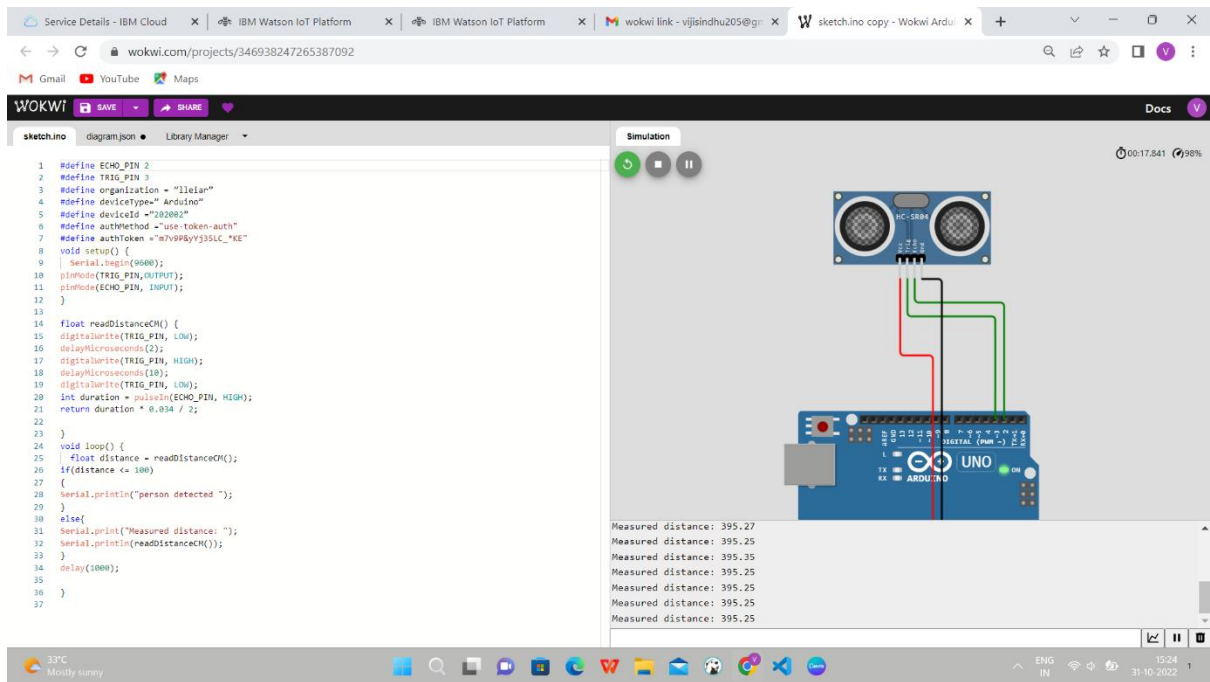
Write code and connections in wokwi for ultrasonic. Whenever distance is less than 100 cm's send "alert" to IBM cloud and display in device recent events.

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "lleiar"
#define deviceType=" Arduino"
#define deviceId ="202002"
#define authMethod = "use-token-auth"
#define authToken = "m7v9P&yYj35LC_*KE*"
void setup() {
    Serial.begin(9600);
    pinMode(TRIG_PIN,OUTPUT);
    pinMode(ECHO_PIN, INPUT);
}

float readDistanceCM() {
    digitalWrite(TRIG_PIN, LOW);
    delayMicroseconds(2);
    digitalWrite(TRIG_PIN, HIGH);
    delayMicroseconds(10);
    digitalWrite(TRIG_PIN, LOW);
    int duration = pulseIn(ECHO_PIN, HIGH);
    return duration * 0.034 / 2;
}

void loop() {
    float distance = readDistanceCM();
    if(distance <= 100)
    {
        Serial.println("person detected ");
    }
    else{
        Serial.print("Measured distance: ");
        Serial.println(readDistanceCM());
    }
    delay(1000);
}
```

WOKWI PROJECT LINK: <https://wokwi.com/projects/346938247265387092>



Service Details - IBM Cl...IBM Watson IoT Platfor...IBM Watson IoT Platfor...ibm cloud services - viji...sketch.ino copy - Wok...New Tab

llear.internetofthings.ibmcloud.com/dashboard/devices/drilldown/arduino:202002?returnTo=/devices/browse

GmailYouTubeMaps

IBM Watson IoT Platform

Back

Device Drilldown - 202002

Connection InformationRecent EventsStateDevice InformationMetadataDiagnosticsConnection LogsDevice Actions

Connection Information

Basic connection information about this device.

Device ID

202002

Device Type

arduino

Date Added

Oct 31, 2022 3:36 PM

Added By

vijisindhu205@gmail.com

Connection Status

Disconnected

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	[{"version":1,"author":"Viji Lakshmi","editor":"wo...	json	a few seconds ago
event_1	[{"version":1,"author":"Viji Lakshmi","editor":"wo...	json	a few seconds ago
event_1	[{"version":1,"author":"Viji Lakshmi","editor":"wo...	json	a few seconds ago
event_1	[{"version":1,"author":"Viji Lakshmi","editor":"wo...	json	a few seconds ago
event_1	[{"version":1,"author":"Viji Lakshmi","editor":"wo...	json	a few seconds ago

1 Simulation running

33°C
Mostly sunny

ENG
IN15:42
31-10-2022