

ASSIGNMENT 4

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.

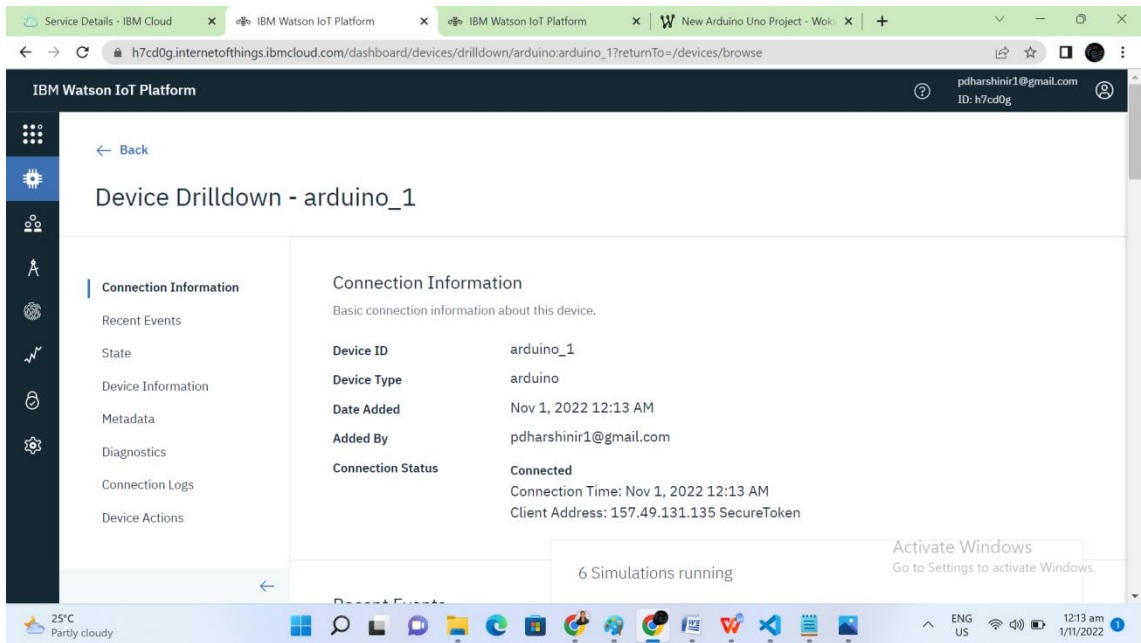
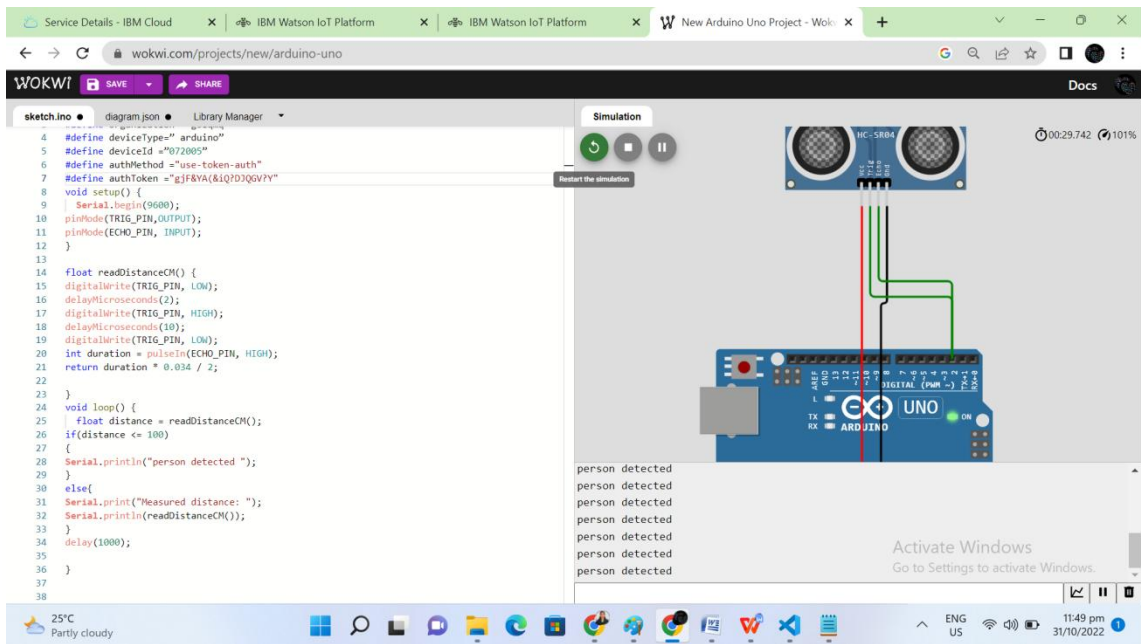
Question 1

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization ="gs1qmq"
#define deviceType=" arduino"
#define deviceId ="072005"
#define authMethod ="use-token-auth"
#define authToken ="gjF&YA(&iQ?DJQGV?Y"
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: [hwi.com/projects/347061902887617106](https://wokwi.com/projects/347061902887617106)



Service Details - IBM Cloud

IBM Watson IoT Platform

IBM Watson IoT Platform

New Arduino Uno Project - Wok

h7cd0g.internetofthings.ibmcloud.com/dashboard/devices/drilldown/arduino:arduino_1?returnTo=/devices/browse

IBM Watson IoT Platform

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← Back

Device Drilldown - arduino_1

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

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":"Priyadharshini.R 19_048"...	json	a few seconds ago
event_1	{"version":1,"author":"Priyadharshini.R 19_048"...	json	a few seconds ago
event_1	{"version":1,"author":"Priyadharshini.R 19_048"...	json	a few seconds ago
event_1	{"version":1,"author":"Priyadharshini.R 19_048"...	json	a few seconds ago
event_1	{"version":1,"author":"Priyadharshini.R 19_048"...	json	a few seconds ago

6 Simulations running

Activate Windows
Go to Settings to activate Windows.

25°C
Partly cloudy

ENG
US

12:14 am
1/11/2022