

ASSIGNMENT-4  
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Qn: Write code and connections in wokwi for the ultrasonic sensor.

Whenever the distance is less than 100 cms send an "alert" to the IBM cloud  
**and display in the device recent events.**

Upload document with wokwi share link and images of IBM cloud

LINK:

<https://wokwi.com/projects/new/arduino-uno>

CODE:

```
long int echoPin=7;
long int trigPin=5;
void setup()

    Serial.begin(9600);
    pinMode(7,OUTPUT);
    pinMode(5,INPUT);

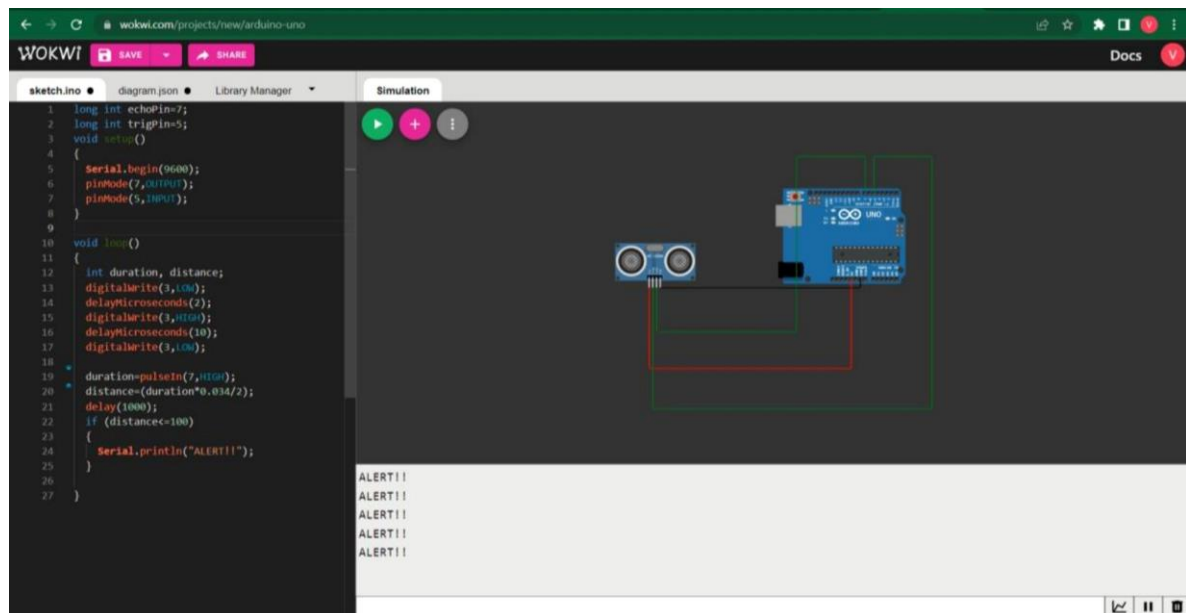
void loop()

    int duration, distance;
    digitalWrite(3,LOW);
    delayMicroseconds(2);
    digitalWrite(3,HIGH);
    delayMicroseconds(10);
    digitalWrite(3,LOW);

    duration=pulseIn(7,HIGH);
    distance=(duration*0.034/2);
    delay(1000);
    if (distance<=100)

        Serial.println("ALERT!!");
```

## SIMULATIONS:



```
1 pH = random.r
2 turbidity = random.randint(1,
3 temperature = random.randint(0,
4
5 data = {'pH': pH, 'turbid': tur
6
7
8 # print(data)
9 def myOnPublishCallback():
10 while True
```

The recent events listed show the live stream of data that is coming an

Event	Value
demo	{"pH":12,"turbid":93,"temp":87}
demo	{"pH":7,"turbid":873,"temp":94}
demo	{"pH":3,"turbid":204,"temp":19}
demo	{"pH":11,"turbid":304,"temp":77}
demo	{"pH":13,"turbid":16,"temp":50}

00003 Disconnected Micro\_controller\_2 Devi

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