

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);

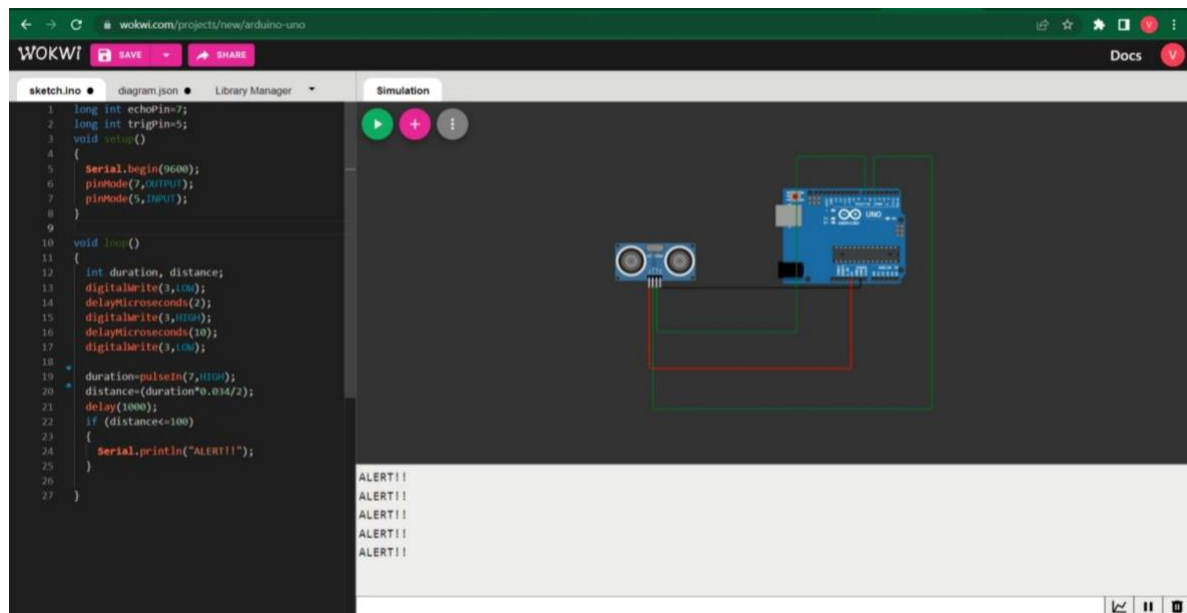
void loop()

    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
9 # print(data)
10 def myOnPublishCallback():
11 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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