

#### 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:

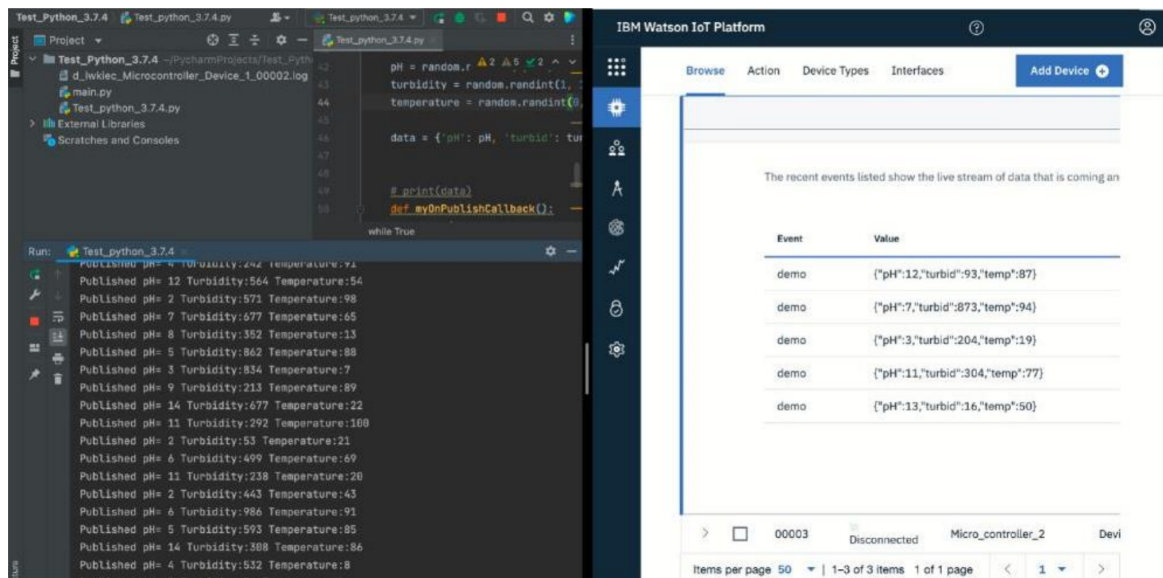
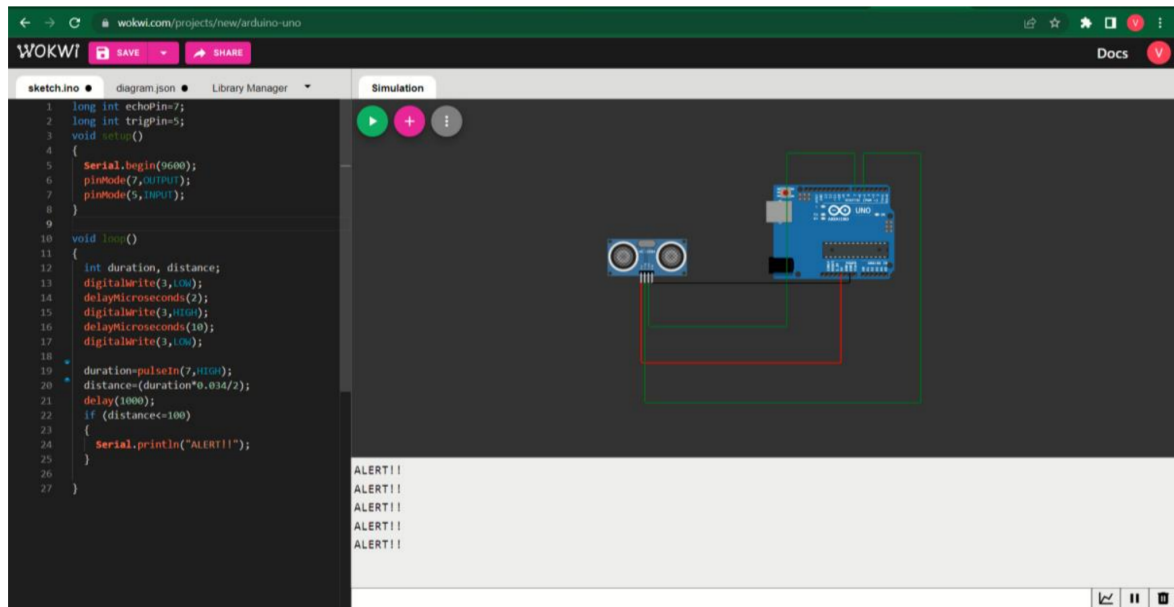
```
long int echoPin=7;
long int trigPin=5;
void setup()
{
  Serial.begin(9600);
  pinMode(7,OUTPUT);
  pinMode(5,INPUT);
}

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:



The screenshot shows the 'Interfaces' tab selected in the top navigation bar. The main content area displays a message: "The recent events listed show the live stream of data that is coming an". Below this message is a table with two columns: "Event" and "Value". The table contains five rows of data, each representing a sensor reading event. At the bottom of the interface, there is a status bar showing a connection icon, the ID "00003", the status "Disconnected", the device name "Micro\_controller\_2", and the label "Dev1". A footer section includes pagination controls: "Items per page 50", a dropdown menu, and "1-3 of 3 items 1 of 1 page".

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 Dev1

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