

**ASSIGNMENT-4**  
**NAME:S.KALPANA**

**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:**

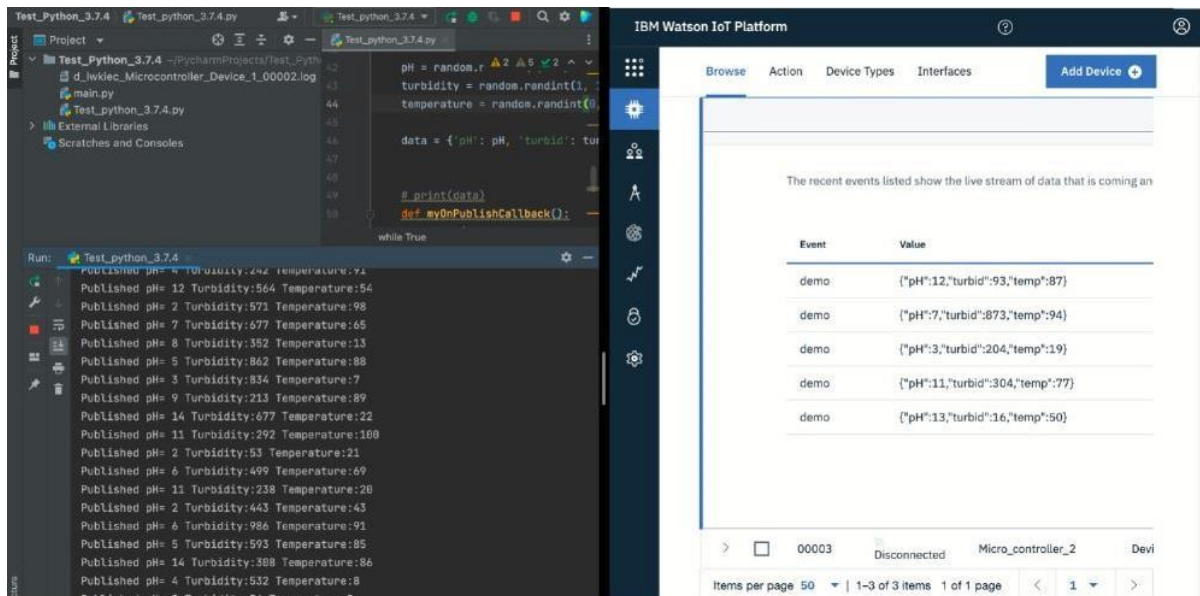
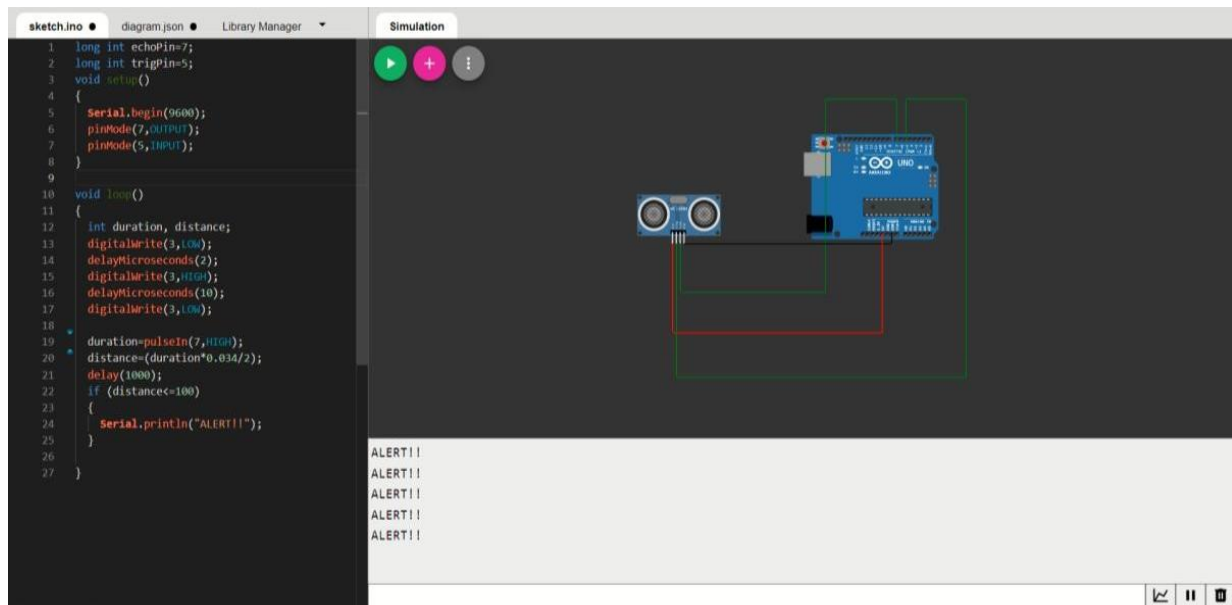
**<https://wokwi.com/projects/new/arduino-uno> CODE:**

```
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 ThingsBoard web application. On the left is a dark sidebar with icons for home, users, devices, widgets, settings, and help. The top navigation bar includes links for Browse, Action, Device Types, Interfaces, and an Add Device button. The main content area displays a message: "The recent events listed show the live stream of data that is coming an". Below this is a table with two columns: Event and Value.

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}

At the bottom of the interface, there is a status bar showing a search icon, the ID "00003", the status "Disconnected", the device name "Micro\_controller\_2", and the label "Dev". Below this is a pagination control showing "Items per page 50", "1-3 of 3 items", "1 of 1 page", and navigation arrows.