

#### ASSIGNMENT-4

**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/346645645004636756> **CODE:**

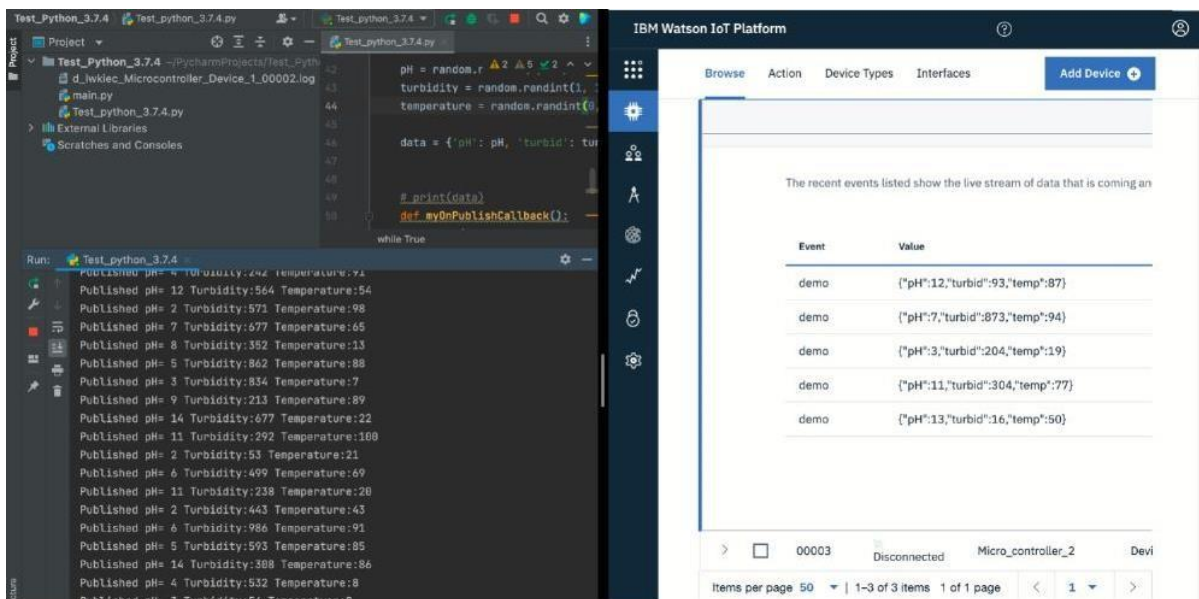
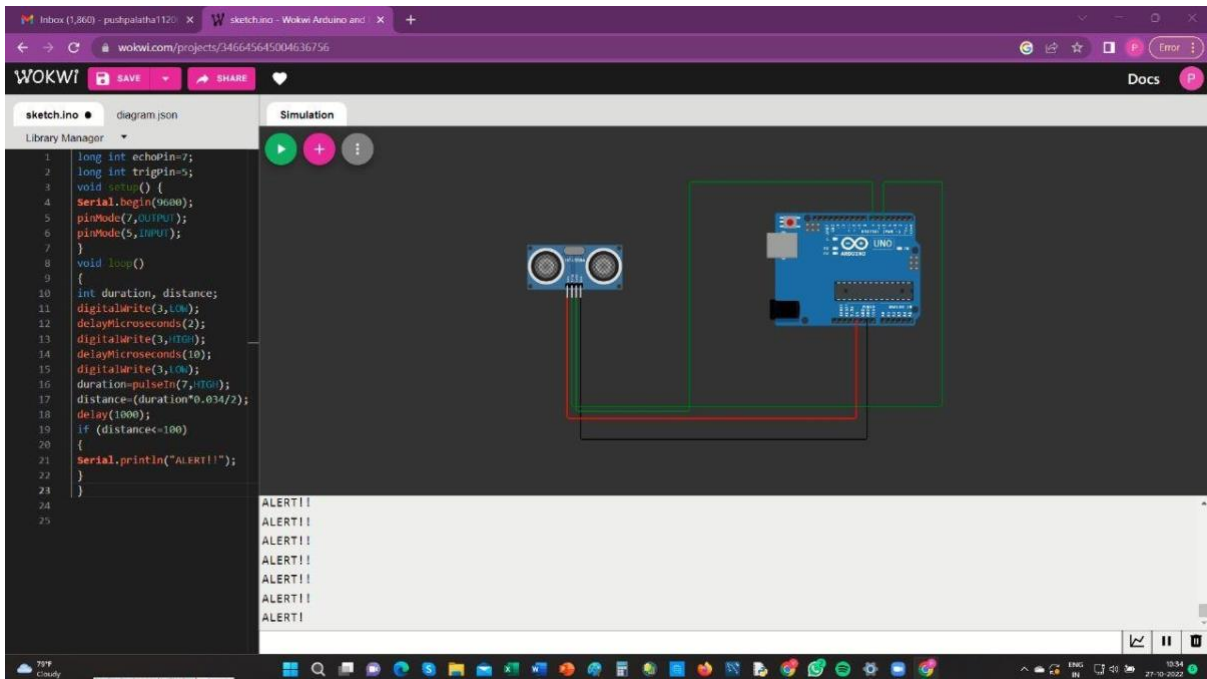
```
long int echoPin=7; long
int trigPin=5;
void setup()
{
  Serial.begin(9600);
  pinMode(7,OUTPUT);
  pinMode(5,INPUT);
}

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 a web application interface for monitoring IoT devices. On the left is a dark sidebar with icons for home, users, people, person, network, signal, lock, and settings. The top navigation bar includes links for Browse, Action, Device Types, Interfaces, and an Add Device button. The main content area displays a message about a live stream of data, followed by a table of recent events.

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, there's a status bar showing a search icon, a square 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.