ASSIGNMENT – 4

Date	20 October 2022
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Team ID	PNT2022TMID38668
Project Name	Gas Leakage Monitoring And Alerting System For Industries .

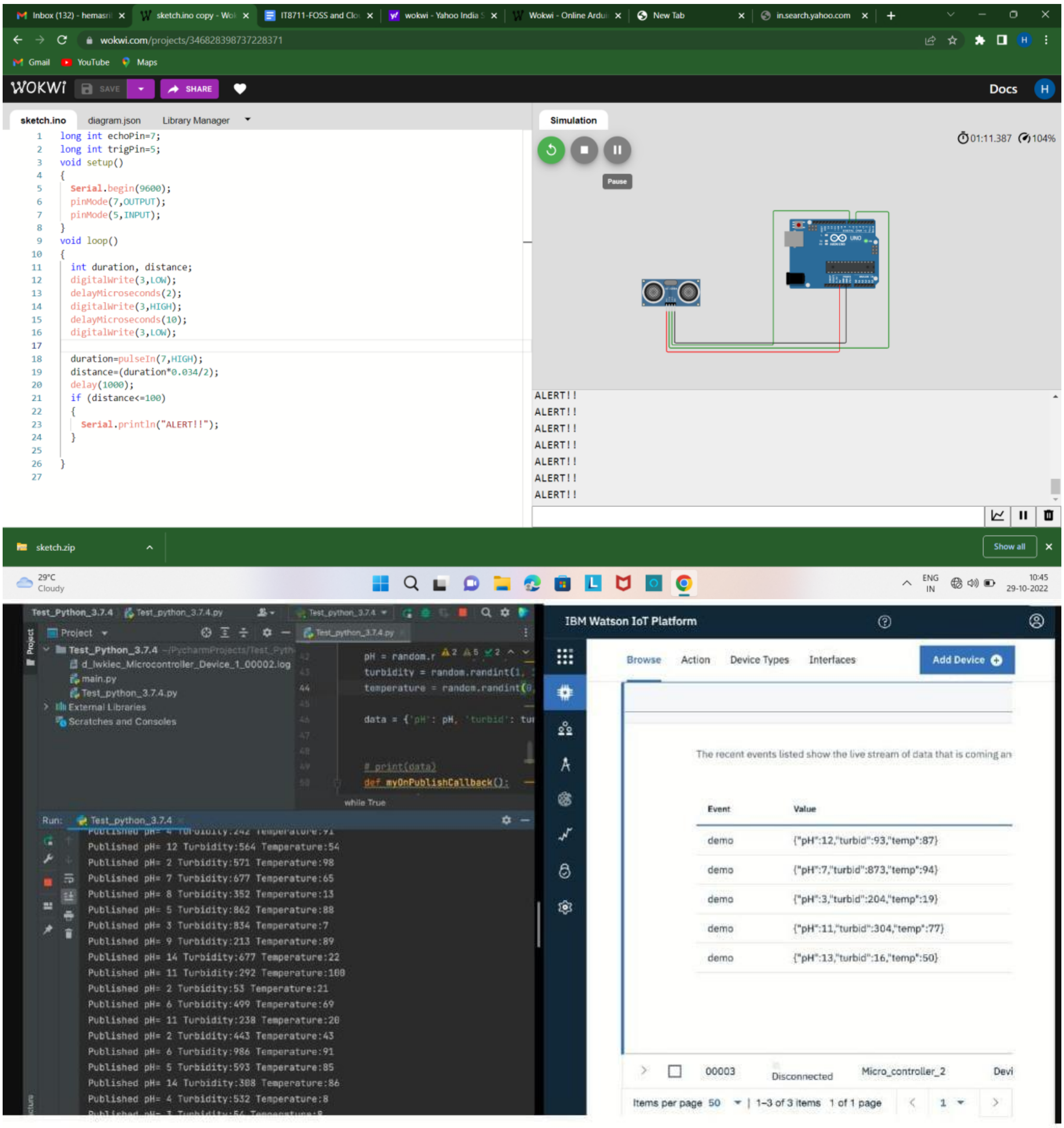
QUESTION :

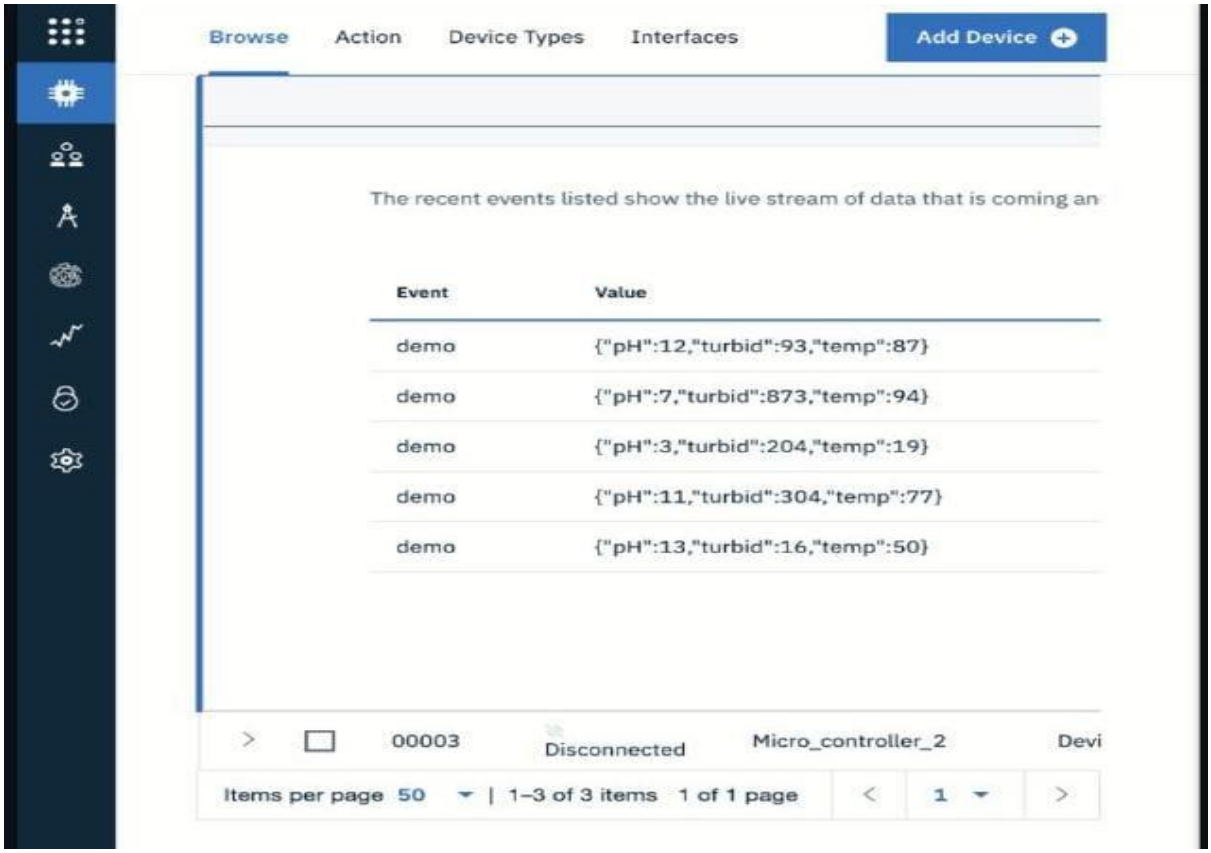
Write code and connections in wokwi for the ultrasonic sensor. Whenever the distance is less than 100 cms send an "alert" to the IBM cloud and display in the device recent events. Upload document with wokwi share link and images of IBM cloud

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!!");
  }

}
```

OUTPUT :


wokwi.com/projects/346828398737228371
WOKWI
SAVE
SHARE
Docs
sketch.ino
diagram.json
Library Manager
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!!");
}
}
Simulation
01:11.387
104%
Pause
ALERT!!
ALERT!!
ALERT!!
ALERT!!
ALERT!!
ALERT!!
ALERT!!
sketch.zip
Show all
29°C
Cloudy
ENG
IN
10:45
29-10-2022
Test_Python_3.7.4
Test_python_3.7.4.py
Project
main.py
External Libraries
Scratches and Consoles
pH = random.r
turbidity = random.randint(1,
temperature = random.randint(0,
data = {'pH': pH, 'turbid': tu
print(data)
def myOnPublishCallback():
while True
Run: Test_python_3.7.4
Published pH= 12 Turbidity:564 Temperature:54
Published pH= 2 Turbidity:571 Temperature:98
Published pH= 7 Turbidity:677 Temperature:65
Published pH= 8 Turbidity:352 Temperature:13
Published pH= 5 Turbidity:862 Temperature:88
Published pH= 3 Turbidity:834 Temperature:7
Published pH= 9 Turbidity:213 Temperature:89
Published pH= 14 Turbidity:677 Temperature:22
Published pH= 11 Turbidity:292 Temperature:100
Published pH= 2 Turbidity:53 Temperature:21
Published pH= 6 Turbidity:499 Temperature:69
Published pH= 11 Turbidity:238 Temperature:20
Published pH= 2 Turbidity:443 Temperature:43
Published pH= 6 Turbidity:986 Temperature:91
Published pH= 5 Turbidity:593 Temperature:85
Published pH= 14 Turbidity:388 Temperature:86
Published pH= 4 Turbidity:532 Temperature:8
IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Add Device
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
Items per page 50
1–3 of 3 items
1 of 1 page



LINK :

https://wokwi.com/projects/346846208743965266