**M Yogalakshmi Assignment4**

Question-1: Write code and connections in wokwi for ultrasonic sensor. Whenever distance is less than 100 cms send “alert” to IBM cloud and display in device recent events.

Solution:

#define ECHO\_PIN 2

#define TRIG\_PIN 3

#define organization =”mwloa2”

#define deviceType=” arduino”

#define deviceId =”4404”

#define authMethod ="use-token-auth"

#define authToken =”rtMoHjTpOvNK+arskD”

void setup() {

// put your setup code here, to run once:

Serial.begin(9600);

pinMode(TRIG\_PIN,OUTPUT);

pinMode(ECHO\_PIN, INPUT);

}

float readDistanceCM() {

digitalWrite(TRIG\_PIN, LOW);

delayMicroseconds(2);

digitalWrite(TRIG\_PIN, HIGH);

delayMicroseconds(10);

digitalWrite(TRIG\_PIN, LOW);

int duration = pulseIn(ECHO\_PIN, HIGH);

return duration \* 0.034 / 2;

}

void loop() {

// put your main code here, to run repeatedly:

float distance = readDistanceCM();

if(distance <= 100)

{

Serial.println("person detected ");

}

else{

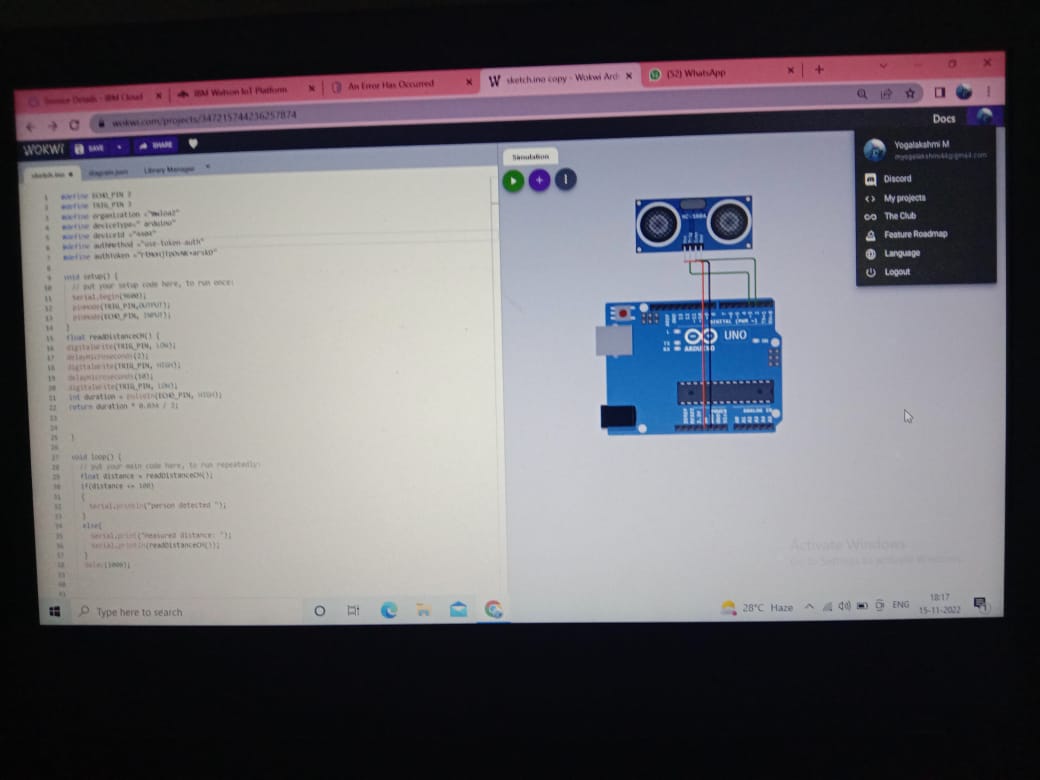
Serial.print("Measured distance: ");

Serial.println(readDistanceCM());

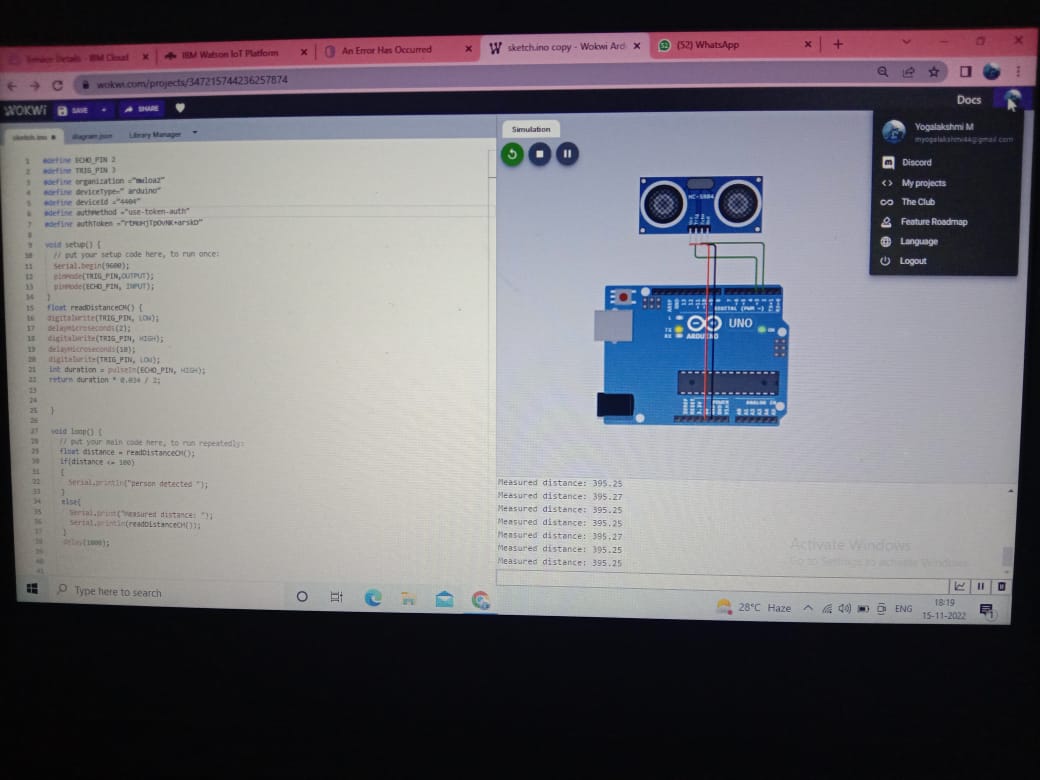
}

delay(1000);

}



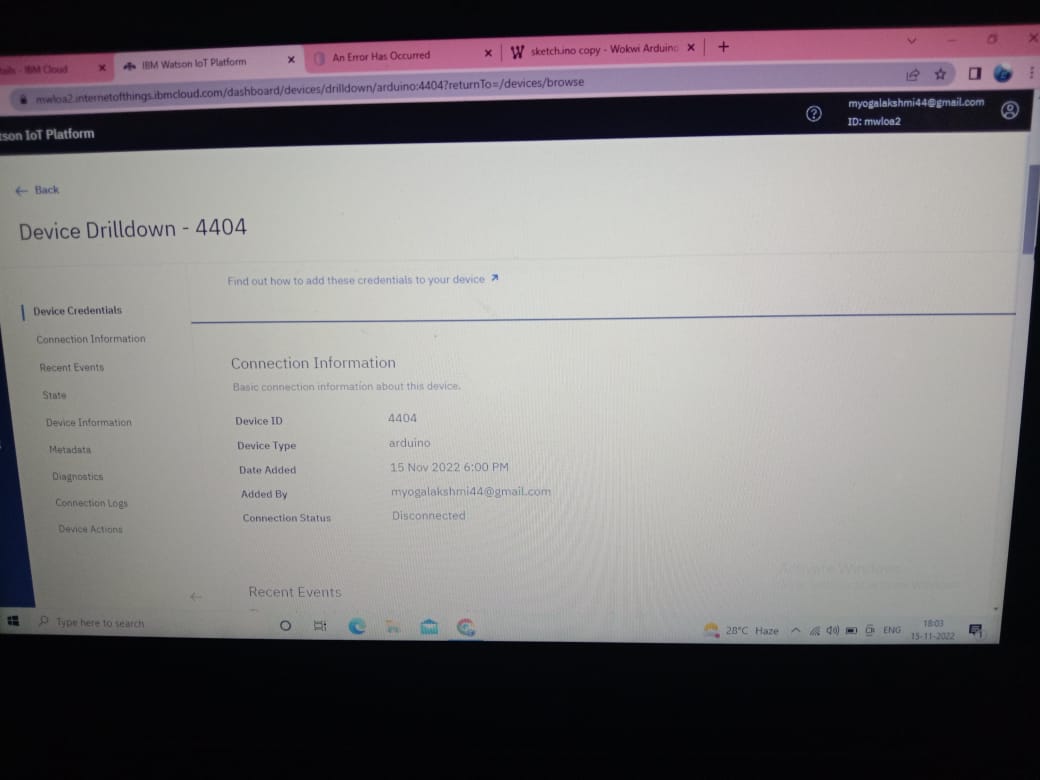
**Output:**

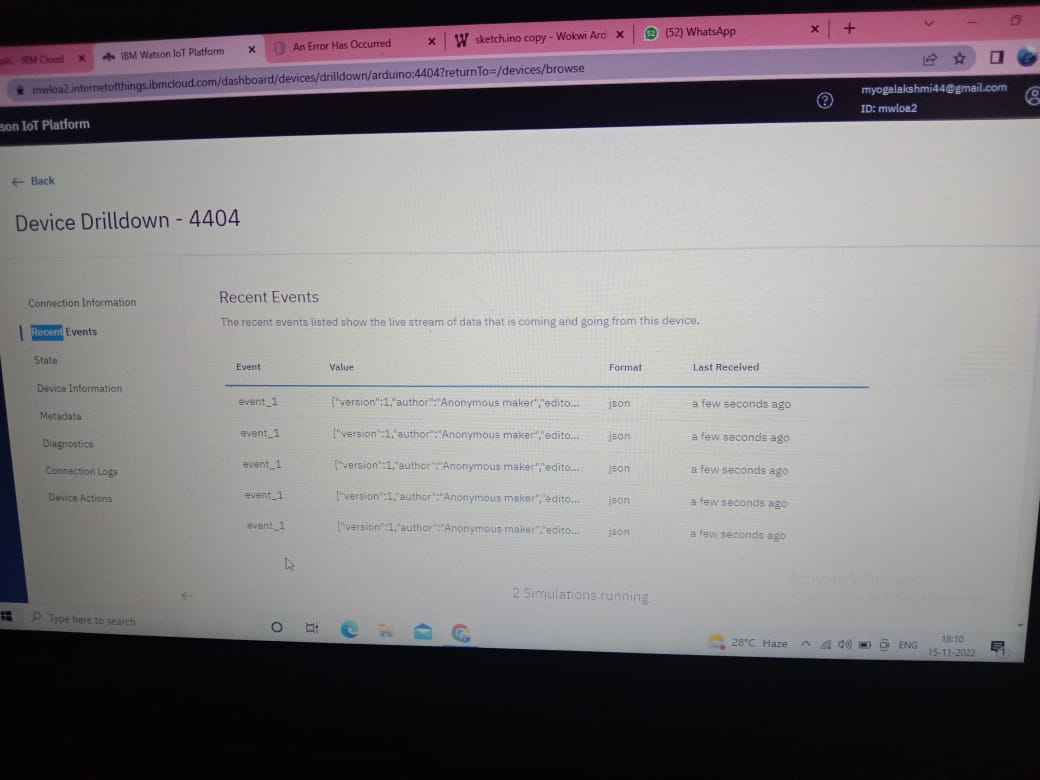
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**Wokwi Link:** https://wokwi.com/projects/348398666112827988

**IBM CLOUD**

**Device Recent Events**

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