ASSIGNMENT – 4

ULTRASONIC SENSOR SIMULATION IN WOKWI

Date	05.11.2022
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Maximum marks	2 marks

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
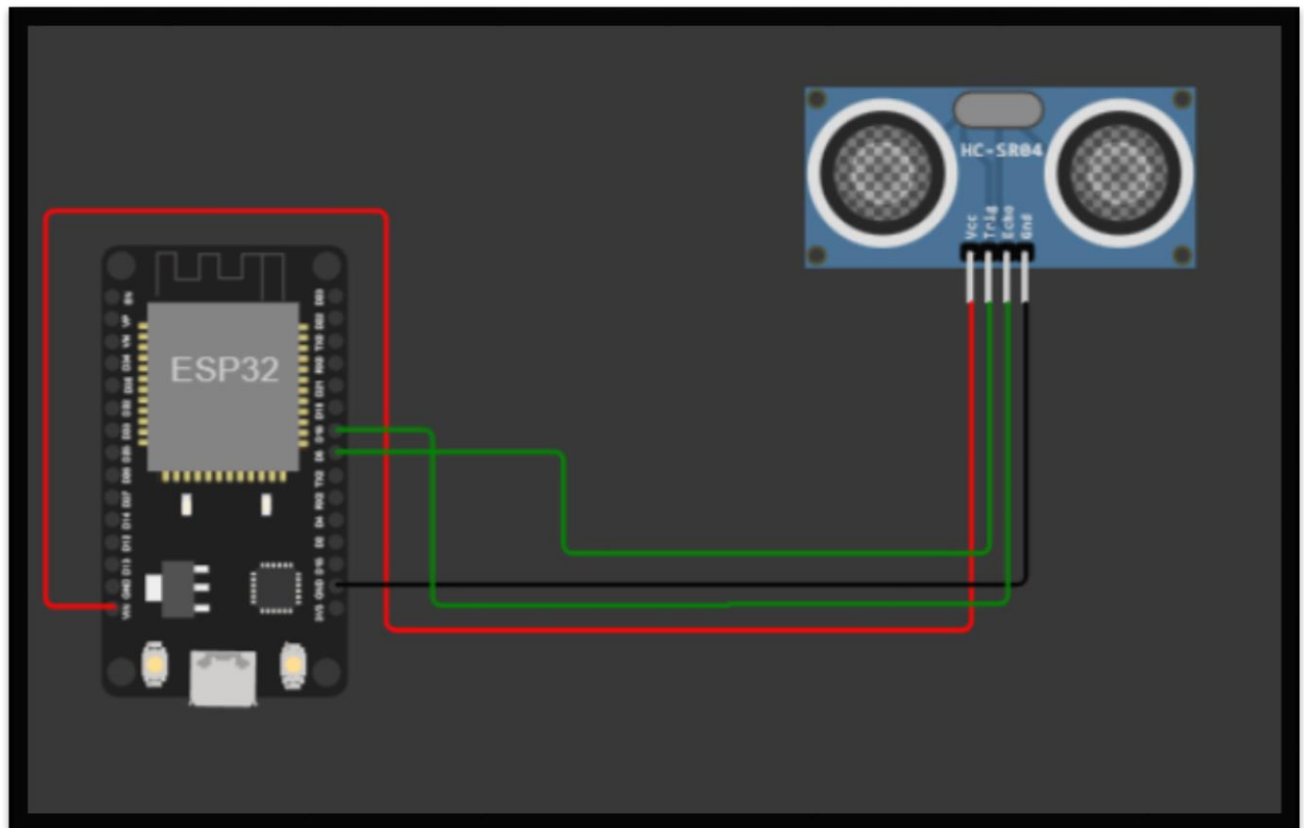
CODE Screenshot:

```
long int echoPin=2;
long int trigPin=3;
long duration;
int distance;
void setup()
{
  Serial.begin(9600);
  pinMode(3,OUTPUT);
  pinMode(2,INPUT);
}

void loop()
{
  digitalWrite(3,LOW);
  delayMicroseconds(2);
  digitalWrite(3,HIGH);
  delayMicroseconds(10);
  digitalWrite(3,LOW);

 duration=pulseIn(2,HIGH);
  distance=(duration*0.034/2);
  delay(1000);
  if (distance<=100)
  {
   Serial.println("ALERT, THE DISTANCE IS LESS THAN 100CM");
  }

}
```

CIRCUIT DIAGRAM:

WOKWI SIMULATION LINK:

WOKWI OUTPUT:

```
ALERT, THE DISTANCE IS LESS THAN 100CM
ALERT, THE DISTANCE IS LESS THAN 100CM
ALERT, THE DISTANCE IS LESS THAN 100CM
```