

Assignment -4

Assignment Date	30 October 2022
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Question-1:

Write code and connections in wokwi for ultrasonic. 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
= "fkxdqs" #define
deviceType =
"Arduino" #define
deviceId = "1200"
#define authMethod = "use-
token-auth" #define
authToken = "000000000"
void setup() {
  Serial.begin(9600);
  pinMode(TRIG_PIN,
  OUTPUT);
  pinMode(ECHO_PIN,
  INPUT);
}

float
readDistanceCM() {
  digitalWrite(TRIG_PI
  N, LOW);
  delayMicroseconds(2)
  ;
  digitalWrite(TRIG_PI
  N, HIGH);
```

```
delayMicroseconds(10
);
digitalWrite(TRIG_PIN, LOW);

int duration =
pulseIn(ECHO_PIN, HIGH);
return duration * 0.034 /
2;
```

```

}

void loop() {
    float distance =
    readDistanceCM();
    if(distance <= 100)
    {
        Serial.println("person detected ");
    }
    else{
        Serial.print("Measured
        distance: ");
        Serial.println(readDistanceCM());
    }
    delay(1000);
}

```

OUTPUT:



