

## Assignment -4

Assignment Date	12 November 2022
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Maximum Marks	2 Marks

### Question-1:

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.

### Solution :

```
#include "Ultrasonic.h"
Ultrasonic ultrasonic(6,2);
int distance;
void setup() {
    Serial.begin(9600);
}
void loop() {
    distance = ultrasonic.read(CM);
    Serial.print("Distance in CM: ");
    Serial.println(distance);
    if (distance < 100)
        Serial.print("alert");
    Serial.println();
    delay(3000);
}
```

## Output :

The screenshot displays the Arduino IDE interface. The left pane shows the code for `hc-sr04-Ultrasonic-Simulation.ino`. The code includes the `Ultrasonic` library, initializes an `ultrasonic` object with pin 6 and mode 2, and prints distance readings in the serial monitor. The right pane shows a simulation of an Arduino Uno connected to an HC-SR04 ultrasonic sensor. The serial monitor at the bottom shows the output of the program.

```
1 #include "Ultrasonic.h"
2 Ultrasonic ultrasonic(6,2);
3 int distance;
4 void setup() {
5   Serial.begin(9600);
6 }
7 void loop() {
8   distance = ultrasonic.read(CM);
9   Serial.print("Distance in CM: ");
10  Serial.println(distance);
11  if (distance < 100)
12    Serial.print("alert");
13  Serial.println();
14  delay(3000);
15 }
16
```

Distance in CM: 317  
Distance in CM: 162  
Distance in CM: 47  
alert