ASSIGNMENT 4

Ultrasonic sensor simulation in Wokwi
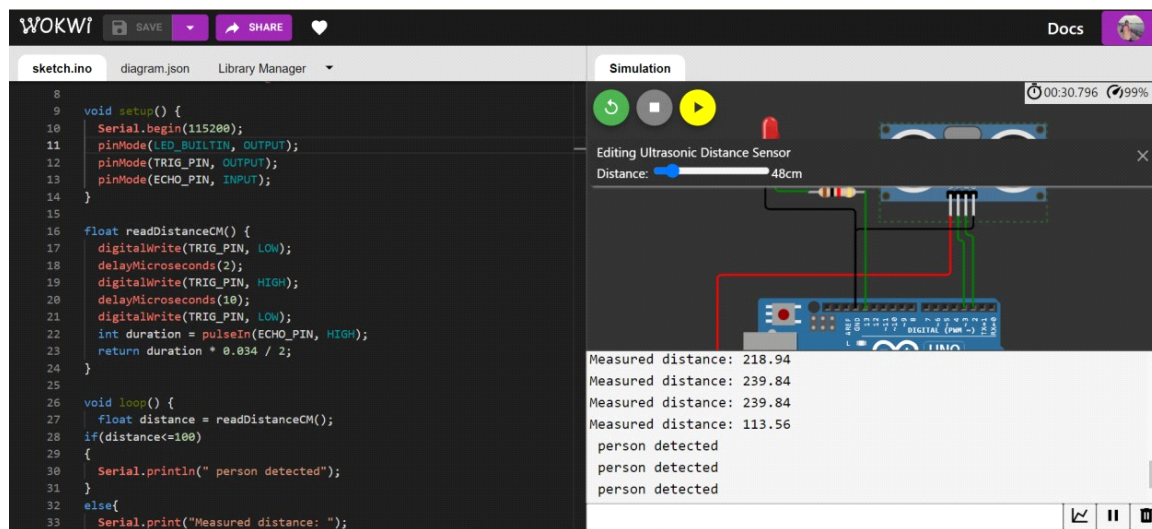
PROJECT NAME: **Real-Time River Water Quality Monitoring and Control System**

TEAM MEMBER : KARUN D

Question : Write a code and connections in wokwi for the ultrasonic sensor. Whenever the distance is less than 100cms send an "Alert" to IBM cloud and display in the device recent events.

Wokwi simulation link: https://wokwi.com/projects/347124503089775188

WOKWI OUTPUT SCREENSHOT:

CODE:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "md8rdq"
#define deviceType = "123" #define
deviceId = "123456" #define
authMethod = "token" #define
authToken = "Titik@2002"
```

```
void setup() {
  Serial.begin(115200);
  pinMode(LED_BUILTIN, OUTPUT);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
}
```

IBM Watson IoT Platform

ultrasonic sensor

Line chart

100

50

0

17:28   17:28:30

1 minute ▼   now

● distance

Device Type: 123

Events 1   New event type ⊕

˅ Event type name   event_1   Send 🗑

Schedule
2   Every Minute ▼

Payload
Specify the event payload in the editor window or by uploading a **CSV file.**

```
0  {
1    "randomNumber": random(0, 100),
2    "distance" : random(0,150)
3  }
4
```
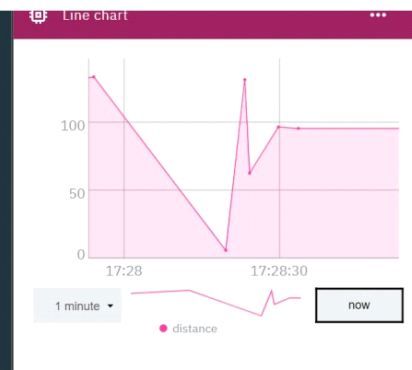
Upload a CSV file