# **Assignment -4**

| DATE                | 2 NOVEMBER 2022 |
|---------------------|-----------------|
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| STUDENT ROLL NUMBER | 815119106010    |
| MAXIMUM MARKS       | 2 MARKS         |

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 indevice recent events.

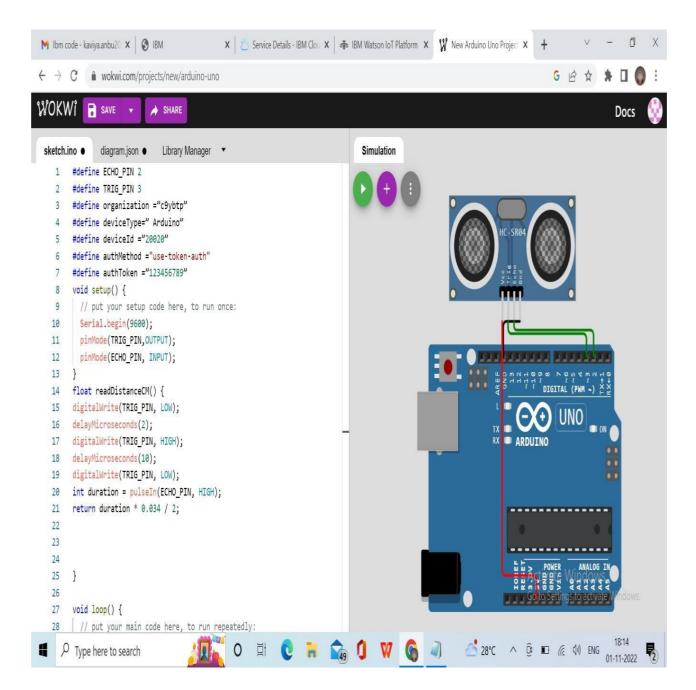
### **Solution:**

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization ="c9ybtp"
#define deviceType=" Arduino"
#define deviceId ="20020"
#define authMethod ="use-token-auth"
#define authToken ="123456789"
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 ");
 }
  Serial.print("Measured distance: ");
  Serial.println(readDistanceCM());
```

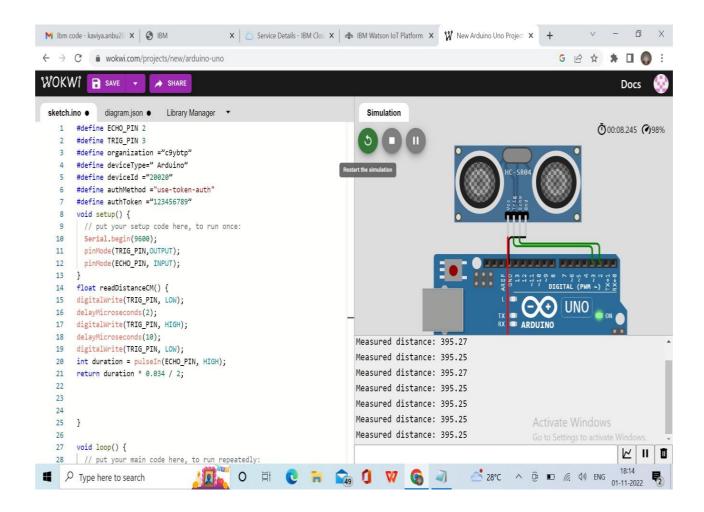
```
delay(1000);
```

}

#### Intput:



## **Output:**



Wokwi Link: https://wokwi.com/projects/347128758734422612

#### **IBM CLOUD**

## **Device Recent Events**



