Assignment -4

Assignment Date	27 October-2022
Student Name	S.VARALAKSHMI
Student Roll Number	510119106011
Maximum Marks	2 Marks

QUESTION-1:

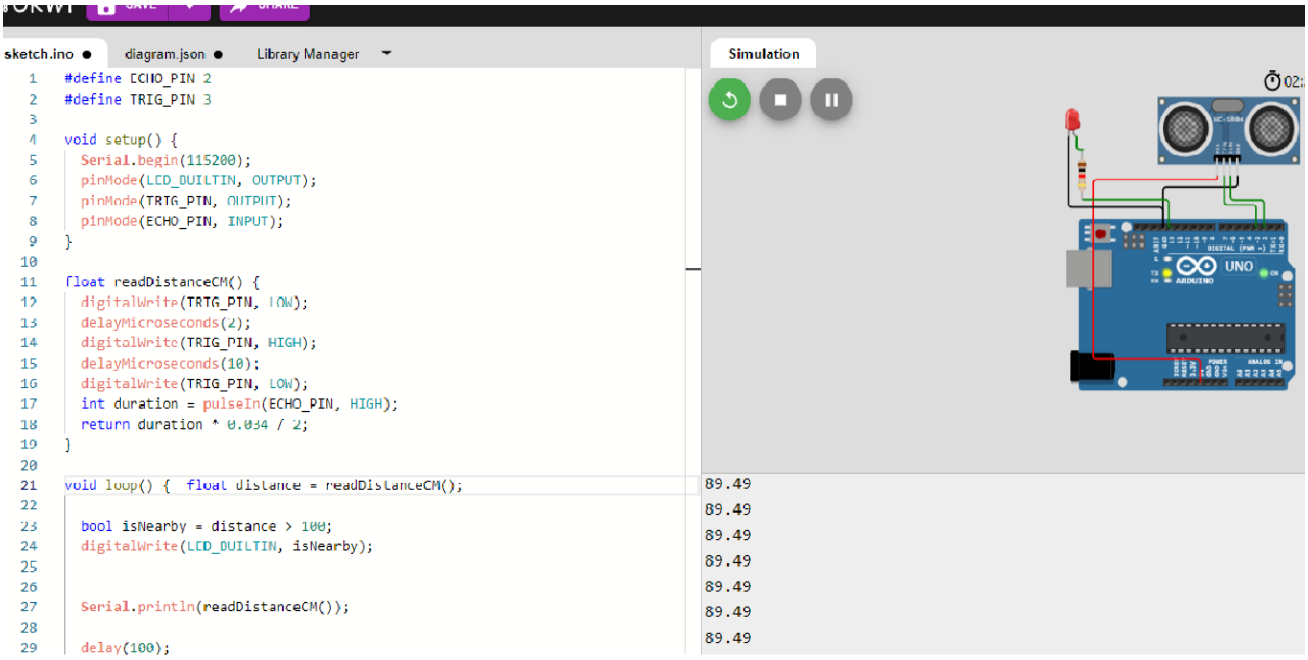
Write codeand connections in wokwi for ultrasonic sensor. Whenever distance is less than 100cms send "alert" to ibm cloud and dispaly in device recent events.

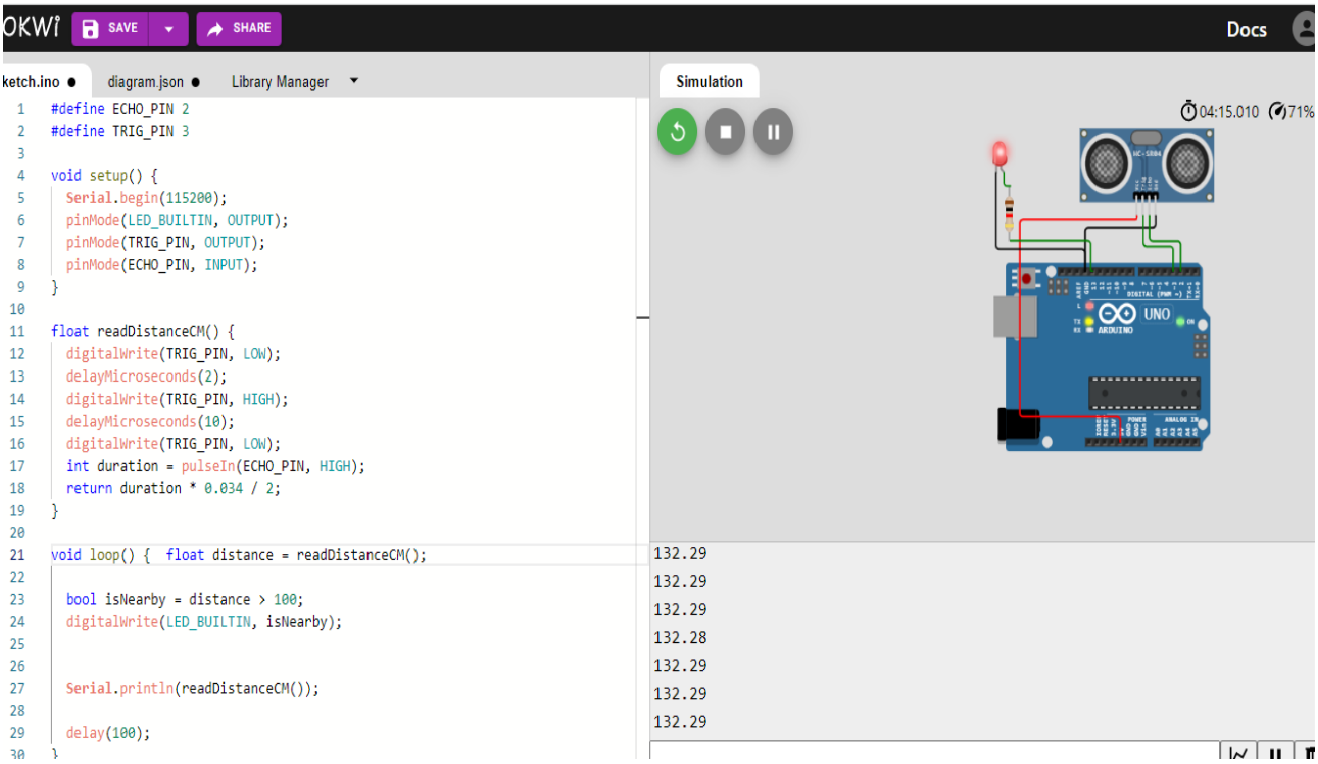
CODE:

```
#define ECHO_PIN 2

#define TRIG_PIN 3


void setup() {
 Serial.begin(115200);
 pinMode(LED_BUILTIN, OUTPUT);
 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() {
  float distance = readDistanceCM();

  bool isNearby = distance > 100;
  digitalWrite(LED_BUILTIN, isNearby);


  Serial.println(readDistanceCM());

  delay(100);
}
```

OUTPUT:



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  int duration = pulseIn(ECHO_PIN, HIGH);
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void loop() {  float distance = readDistanceCM();

  bool isNearby = distance > 100;
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  Serial.println(readDistanceCM());

  delay(100);
}
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REFERENCE LINK:

https://wokwi.com/projects/new/arduino-uno