**ASSIGNMRNT 4**

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| Date | 9 November 2022 |
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# Question1:

\*Write code and connections in wokwi for the ultrasonic sensor.

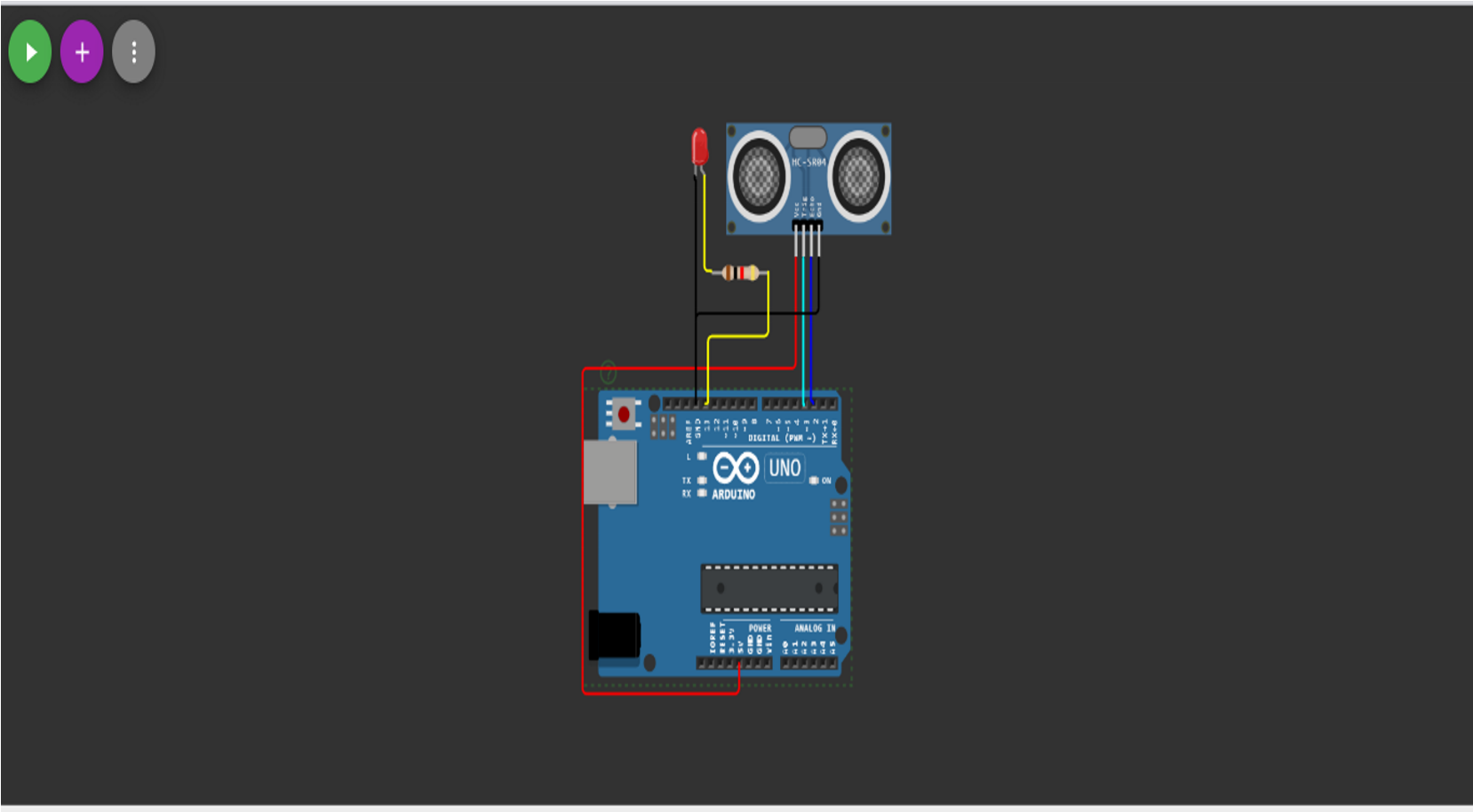
\*Write code and connections in work for ultrasonic sensor.Whenever distance is less than 100cms send"alert"to ibm cloud and display in device recent events.

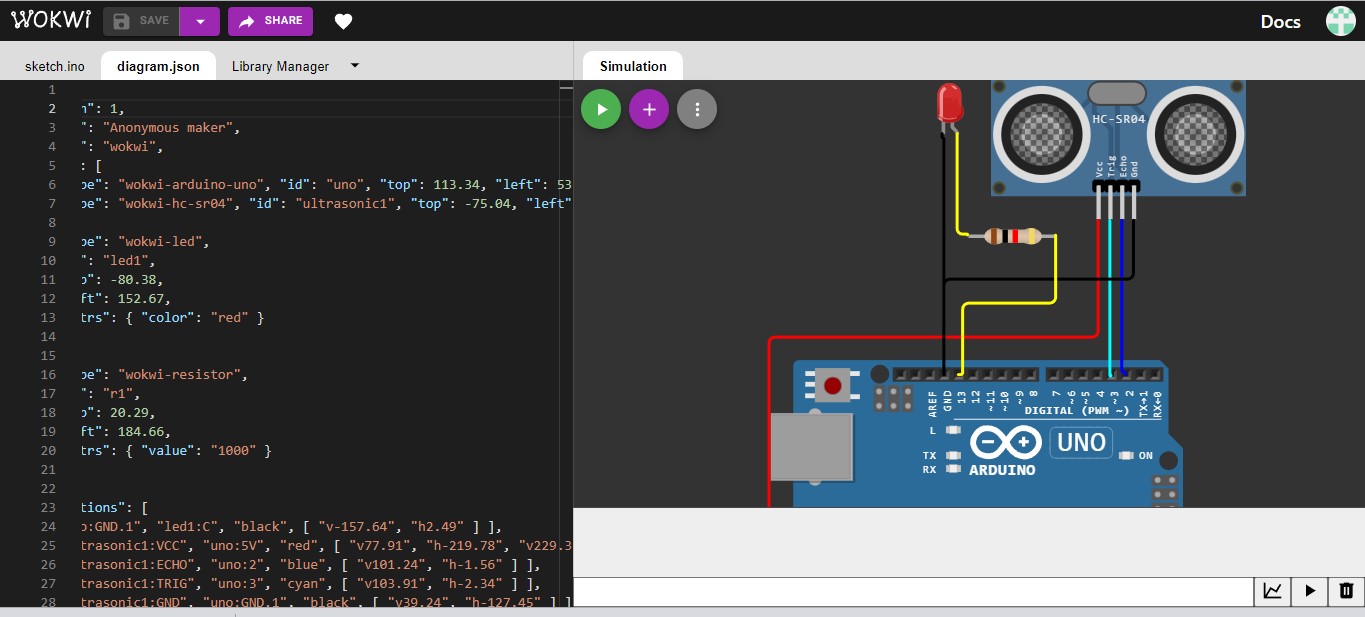
# Code:

|  |
| --- |
| #define ECHO\_PIN 1  #define TRIG\_PIN 9    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 \* 5.044/2;  } void loop() {  float distance = readDistanceCM(); bool isNearby = distance < 100; digitalWrite(LED\_BUILTIN, isNearby); **Serial**.print("Measured distance: "); **Serial**.println(readDistanceCM()); delay(100);  } |

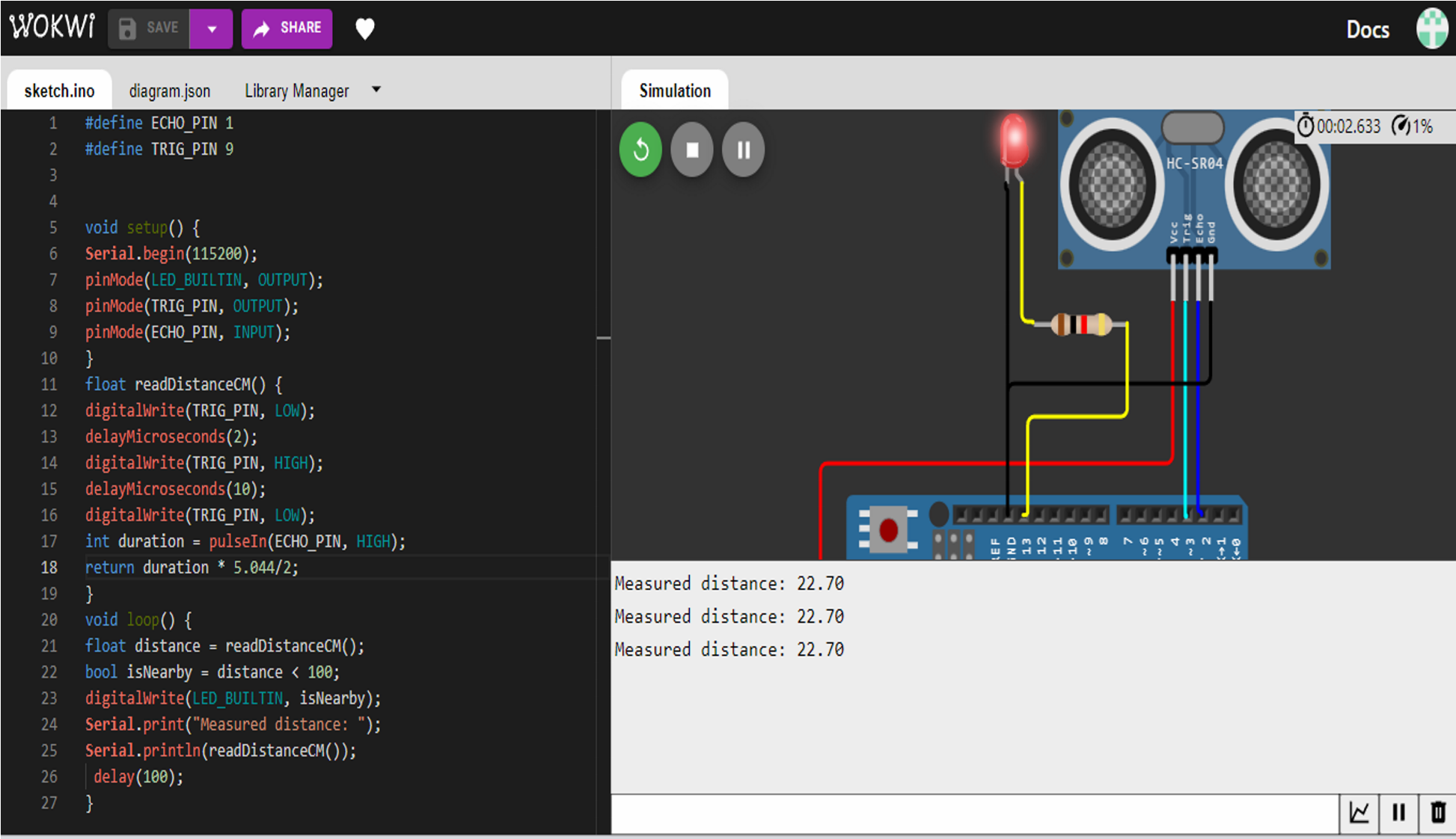
WOKWI LINK : https://wokwi.com/projects/347820446775771732

# Solution :



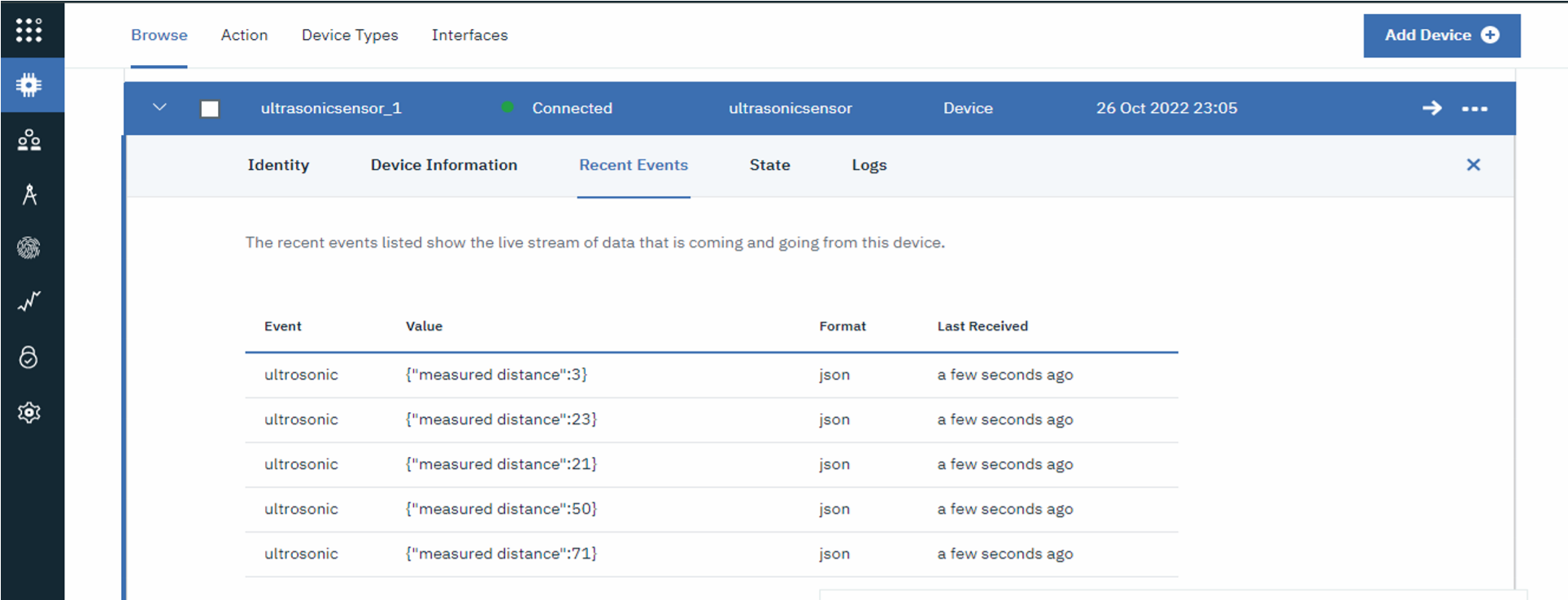


# Solution run:



OUTPUT:

DATA IS SENT TO IBM CLOUD WHEN NO OBJECT IS DETECTED



When no object is detected :

