

SWARNASHRI.S

ASSIGNMENT 4

Question-1:

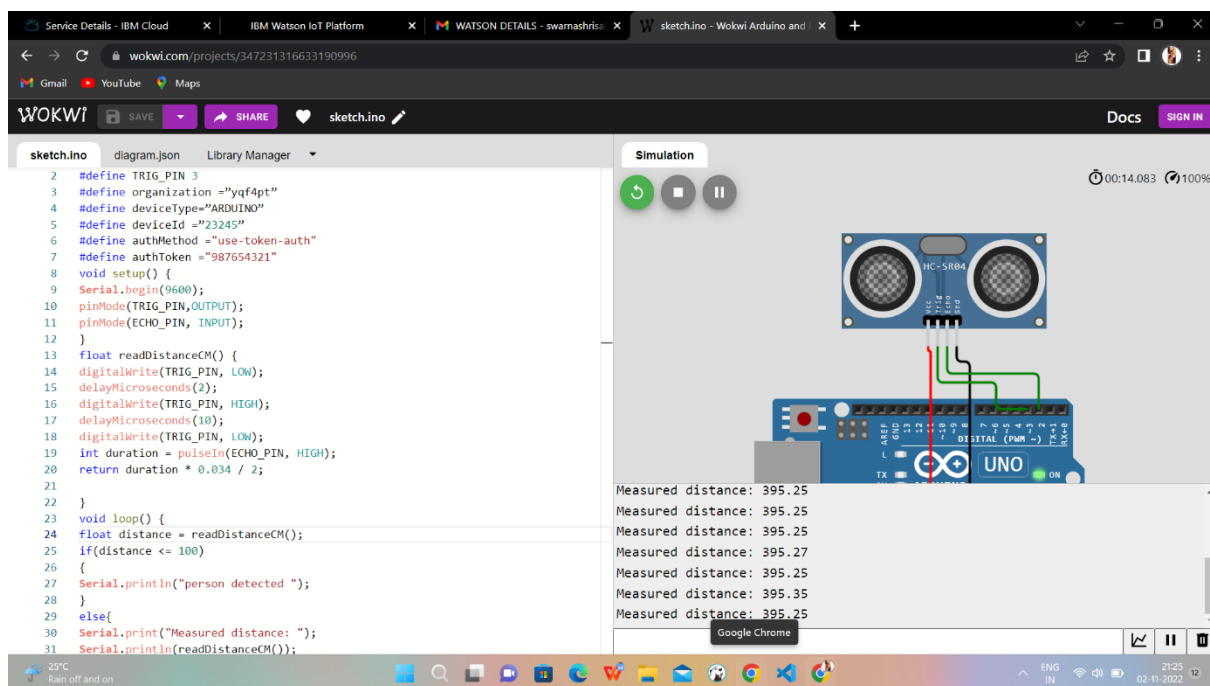
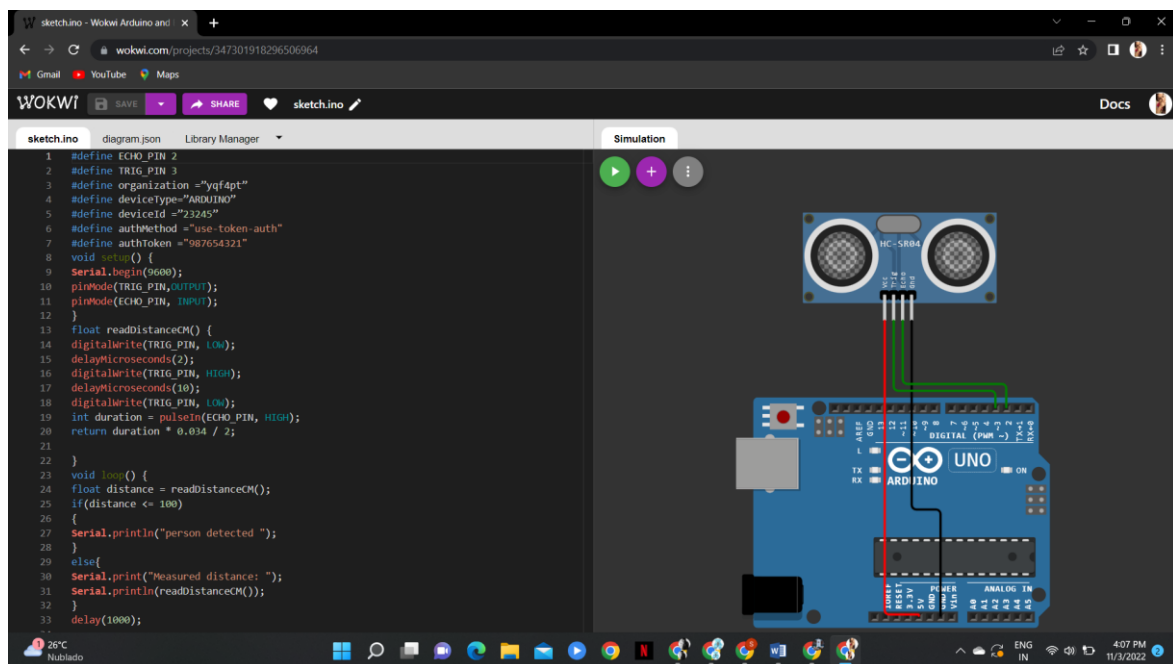
Write code and connections in wokwi for ultrasonic. Whenever distance is less than 100 cm's send

“alert” to IBM cloud and display in device recent events.

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "yqf4pt"
#define deviceType = "ARDUINO"
#define deviceId = "23245"
#define authMethod = "use-token-auth"
#define authToken = "987654321"
void setup() {
  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() {
  float distance = readDistanceCM();
  if(distance <= 100)
  {
    Serial.println("person detected ");
  }
  else{
    Serial.print("Measured distance: ");
    Serial.println(readDistanceCM());
  }
  delay(1000);
}
```

WOKWI PROJECT LINK: <https://wokwi.com/projects/347302235339752019>

OUTPUT:



Service Details - IBM Cloud x IBM Watson IoT Platform x WATSON DETAILS - swarnashrisa x sketch.ino - Wokwi Arduino and x +

← → ↻ yqf4pt.internetofthings.ibmcloud.com/dashboard/devices/drilldown/ARDUINO:ARDUINO_1?returnTo=/devices/browse

Gmail YouTube Maps

IBM Watson IoT Platform swarnashrisahadevan23@gmail.com ID: yqf4pt

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Device Drilldown - ARDUINO_1

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	{"version":1,"author":"SWARNASHRI.S","editor":....	json	a few seconds ago
event_1	{"version":1,"author":"SWARNASHRI.S","editor":....	json	a few seconds ago
event_1	{"version":1,"author":"SWARNASHRI.S","editor":....	json	a few seconds ago
event_1	{"version":1,"author":"SWARNASHRI.S","editor":....	json	a few seconds ago
event_1	{"version":1,"author":"SWARNASHRI.S","editor":....	json	a few seconds ago

5 Simulations running

25°C Rain off and on

ENG IN 21:31 02-11-2022 12

Service Details - IBM Cloud x IBM Watson IoT Platform x WATSON DETAILS - swarnashrisa x sketch.ino - Wokwi Arduino and x +

← → ↻ yqf4pt.internetofthings.ibmcloud.com/dashboard/devices/drilldown/ARDUINO:ARDUINO_1?returnTo=/devices/browse

Gmail YouTube Maps

IBM Watson IoT Platform swarnashrisahadevan23@gmail.com ID: yqf4pt

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Device Drilldown - ARDUINO_1

Connection Information

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Connection Information

Basic connection information about this device.

Device ID	ARDUINO_1
Device Type	ARDUINO
Date Added	Nov 2, 2022 9:30 PM
Added By	swarnashrisahadevan23@gmail.com
Connection Status	Connected Connection Time: Nov 2, 2022 9:30 PM Client Address: 42.106.184.113 SecureToken

Recent Events

The recent events listed show the live stream of data that is

5 Simulations running

25°C Rain off and on

ENG IN 21:30 02-11-2022 12

