

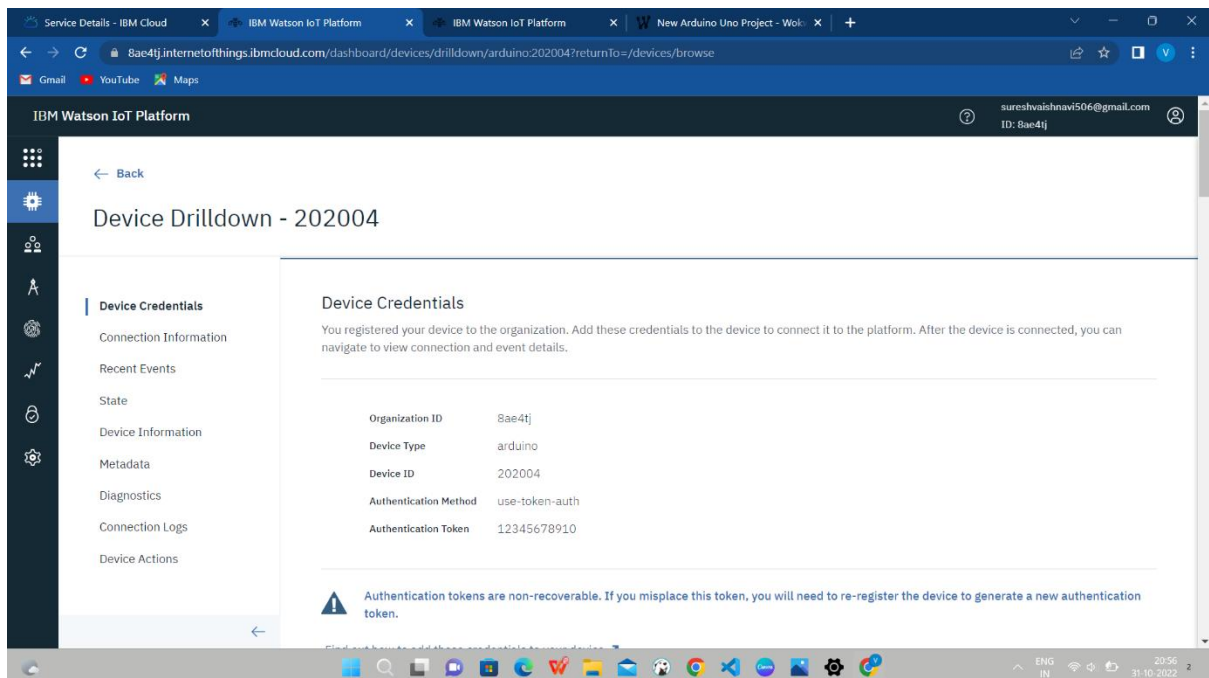
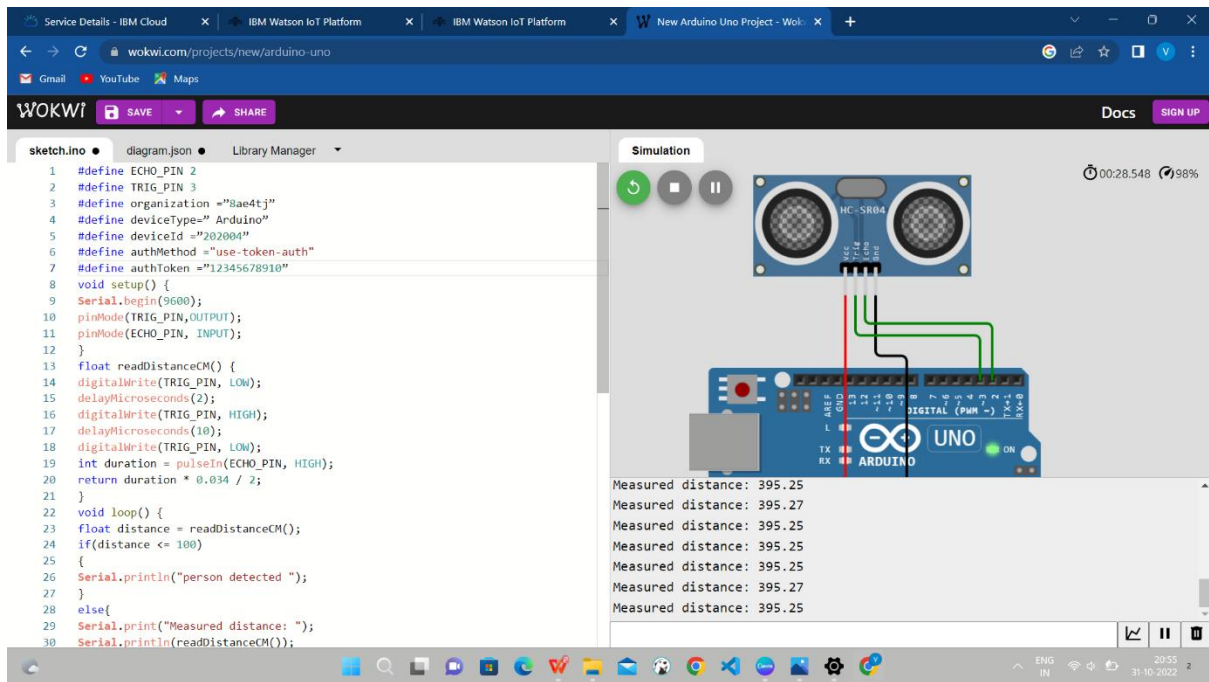
ASSIGNMENT 4:

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 ="8ae4tj"
#define deviceType="Arduino"
#define deviceId ="202004"
#define authMethod ="use-token-auth"
#define authToken ="12345678910"
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/347048462117765715>



Service Details - IBM Cloud

IBM Watson IoT Platform

IBM Watson IoT Platform

sketch.ino - Wokwi Arduino and

8ae4tj.internetofthings.ibmcloud.com/dashboard/devices/drilldown/arduino_1?returnTo=/devices/browse

GmailYouTubeMaps

IBM Watson IoT Platform

sureshvaishnavi506@gmail.com
ID: 8ae4tj

Back

Device Drilldown - arduino_1

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

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

State

This table shows a list of data points that are reported by thi

6 Simulations running

ENG IN

21:03

31-10-2022

2