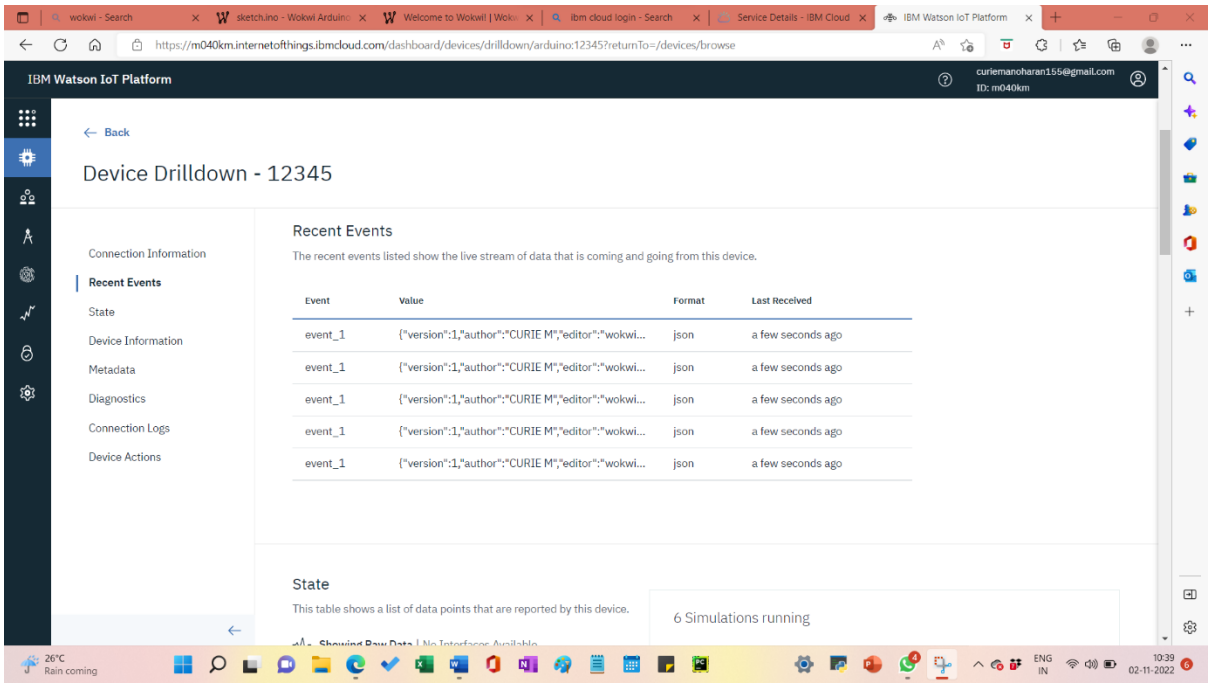
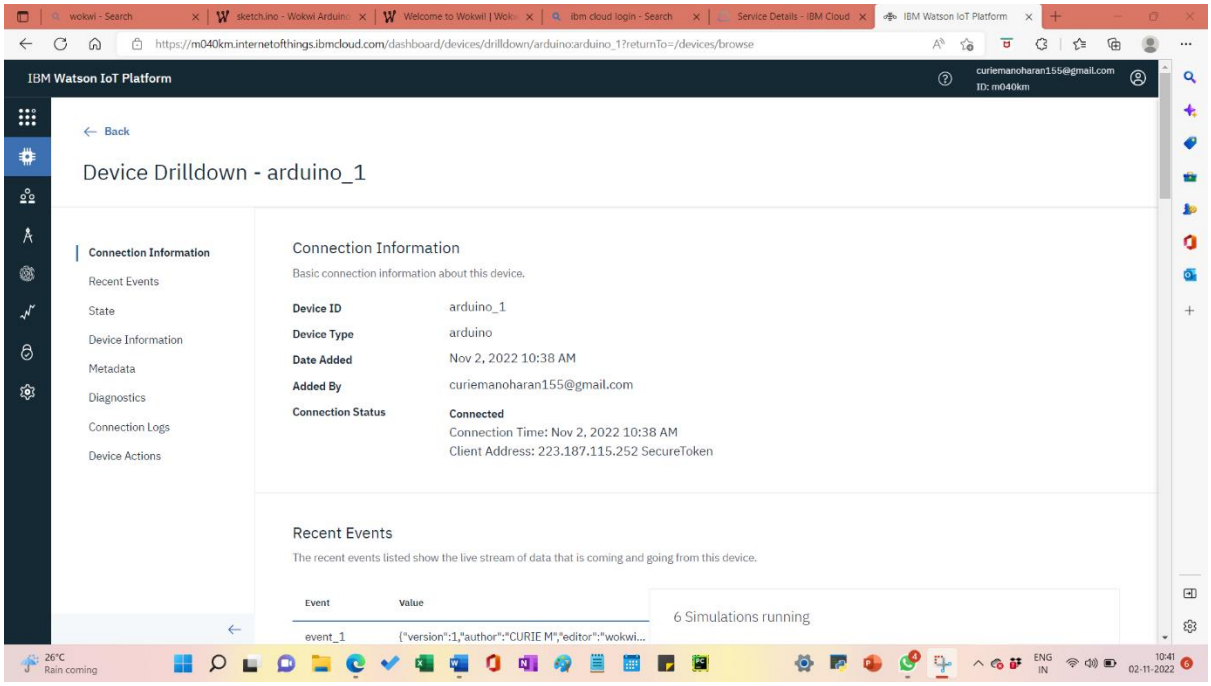
M.CURIE
ASSIGNMENT 4

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

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization =”m040km”
#define deviceType=” Arduino”
#define deviceId =”12345”
#define authMethod ="use-token-auth"
#define authToken =”2YvKHr)ujgdHS7y?dM”

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 ");
  }
  else{
    Serial.print("Measured distance: ");
    Serial.println(readDistanceCM());
  }
  delay(1000);



}
```

WOKWI PROJECT LINK: https://wokwi.com/projects/346952017986454099




IBM Watson IoT Platform
curiemanoharan155@gmail.com
ID: m040km
Back
Device Drilldown - arduino_1
Connection Information
Recent Events
State
Device Information
Metadata
Diagnostics
Connection Logs
Device Actions
Connection Information
Basic connection information about this device.
Device ID
arduino_1
Device Type
arduino
Date Added
Nov 2, 2022 10:38 AM
Added By
curiemanoharan155@gmail.com
Connection Status
Connected
Connection Time: Nov 2, 2022 10:38 AM
Client Address: 223.187.115.252 SecureToken
Recent Events
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
event_1
{"version":1,"author":"CURIE M","editor":"wokwi...
6 Simulations running

WOKWi SAVE SHARE

sketch.ino | diagram.json ● | Library Manager

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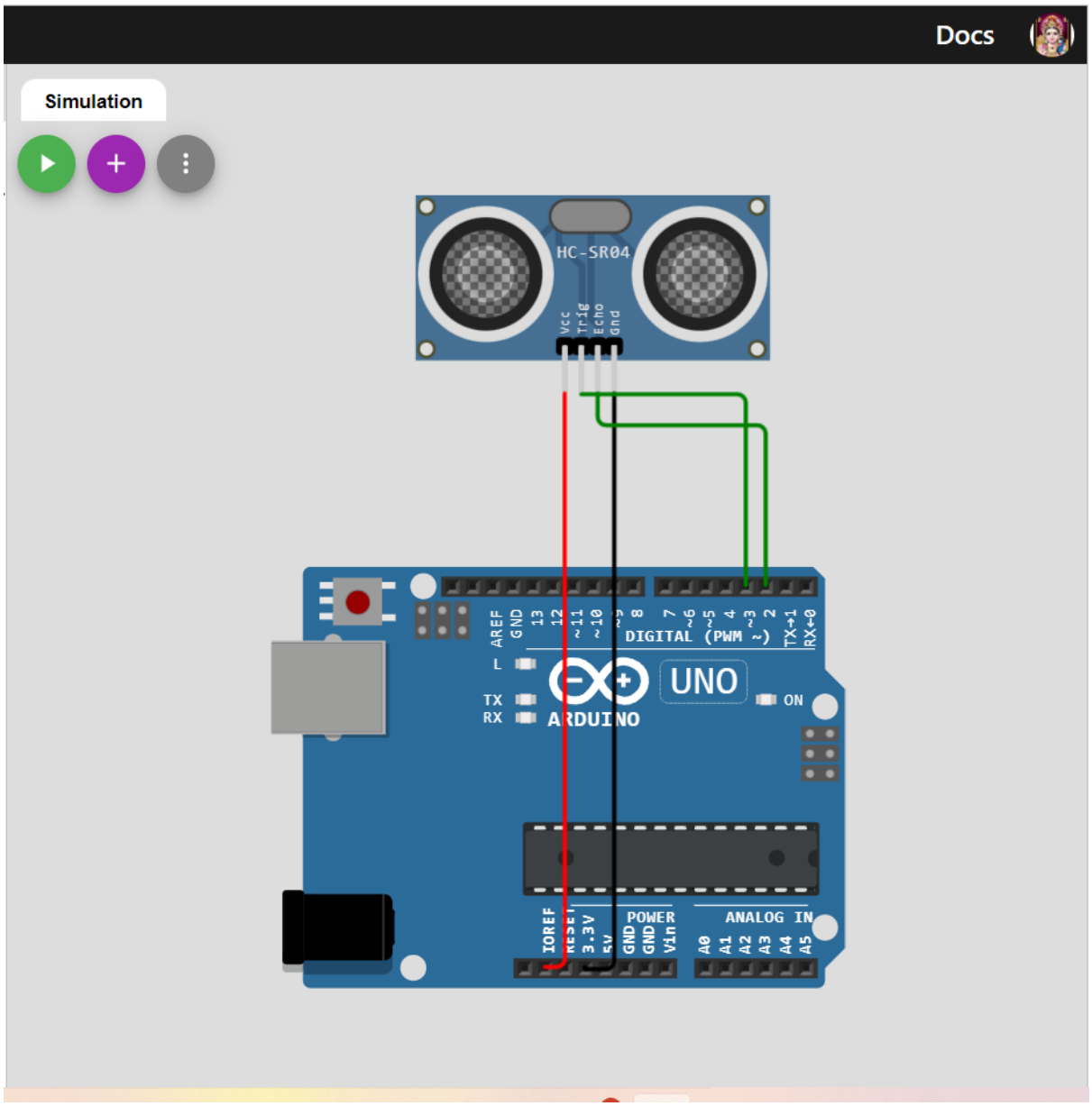
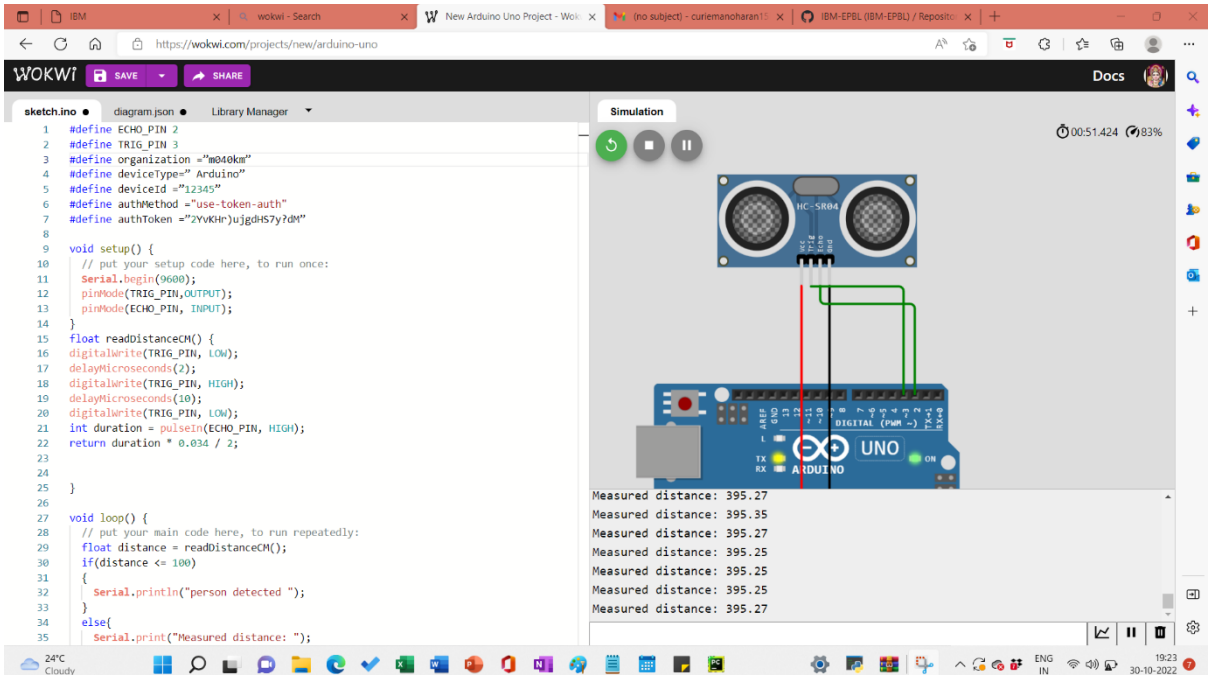

Docs
Simulation
HC-SR04
Vcc
Trig
Echo
Gnd
AREF
GND
13
12
~11
~10
~9
8
7
~6
~5
4
~3
2
TX→1
RX←0
DIGITAL (PWM ~)
L
TX
RX
ARDUINO
UNO
ON
IOREF
RESET
3.3V
5V
GND
GND
Vin
POWER
ANALOG IN
A0
A1
A2
A3
A4
A5




```ino
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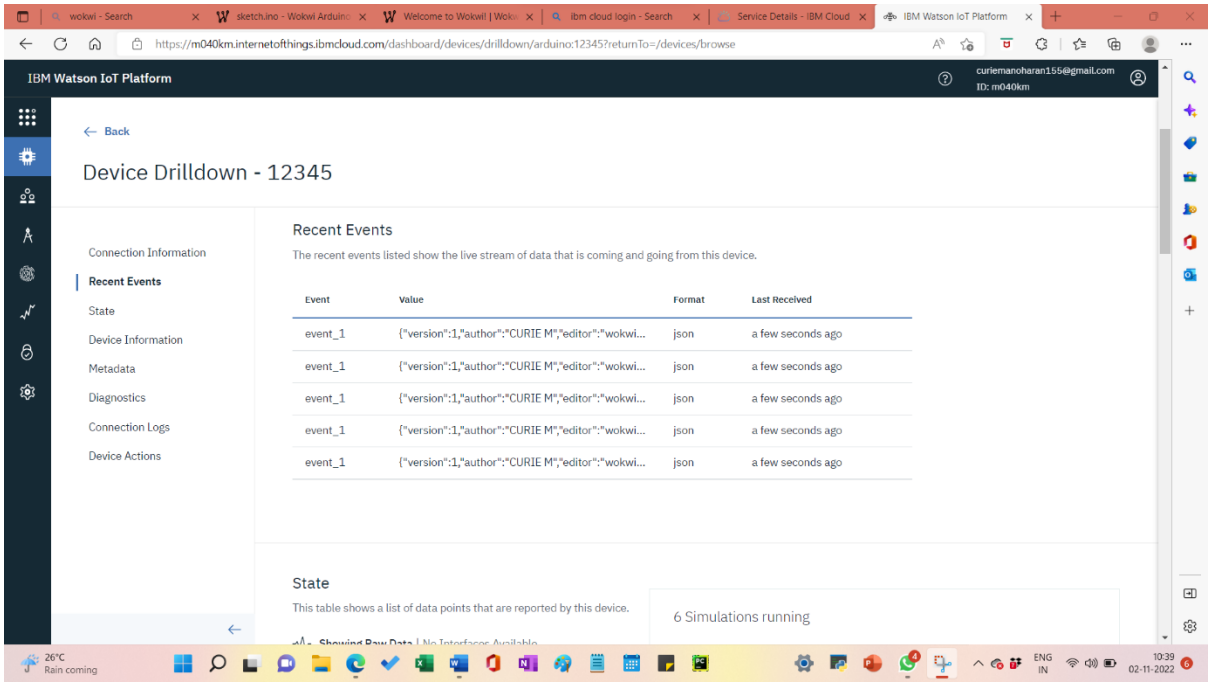
wokwi - Search
sketch.ino - Wokwi Arduino
Welcome to Wokwi | Wokwi
ibm cloud login - Search
Service Details - IBM Cloud
IBM Watson IoT Platform
https://m040km.internetofthings.ibmcloud.com/dashboard/devices/drilldown/arduino:12345?returnTo=/devices/browse
IBM Watson IoT Platform
curiemanoharan155@gmail.com
ID: m040km
Back
Device Drilldown - 12345
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":"CURIE M","editor":"wokwi...
json
a few seconds ago
event_1
{"version":1,"author":"CURIE M","editor":"wokwi...
json
a few seconds ago
event_1
{"version":1,"author":"CURIE M","editor":"wokwi...
json
a few seconds ago
event_1
{"version":1,"author":"CURIE M","editor":"wokwi...
json
a few seconds ago
event_1
{"version":1,"author":"CURIE M","editor":"wokwi...
json
a few seconds ago
State
This table shows a list of data points that are reported by this device.
6 Simulations running
26°C
Rain coming
ENG
IN
10:39
02-11-2022