S.MONIKA ASSIGNMENT-4

Question:1 Write code and connection in wokwi for ultrasonic sensor.

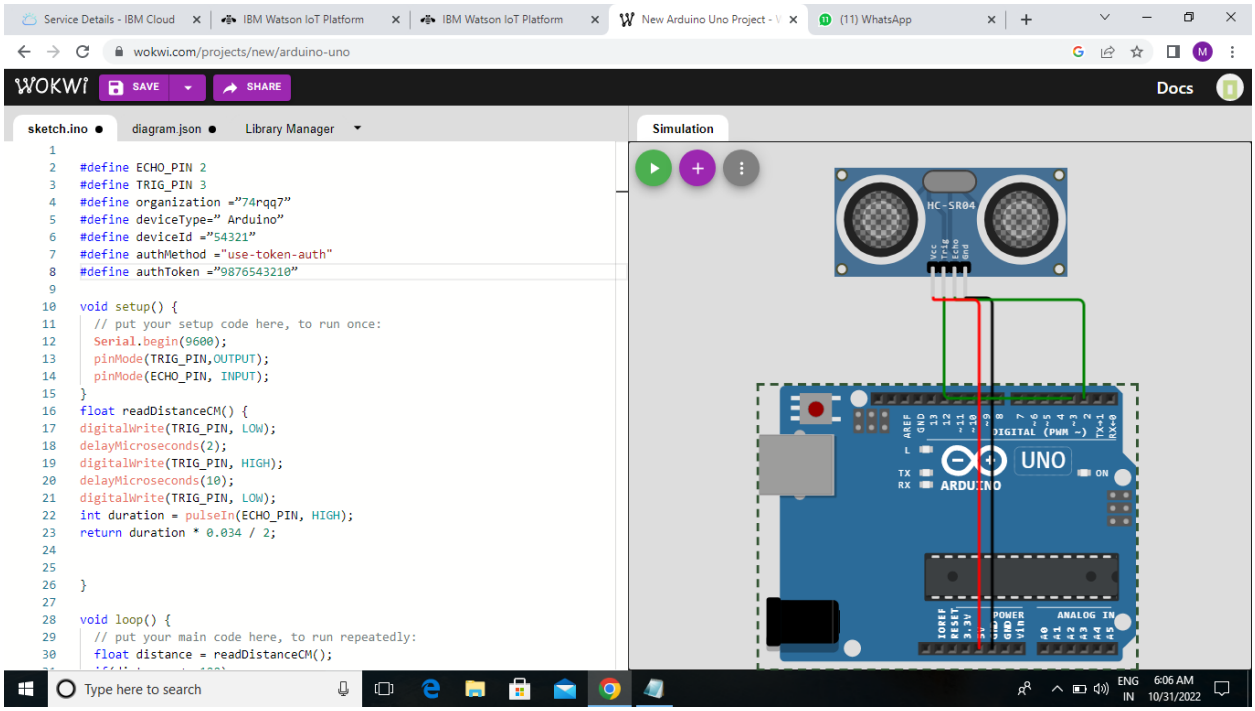
Whenever distance is less than 100 cms send “alter “to ibm cloud and display in device recent events.

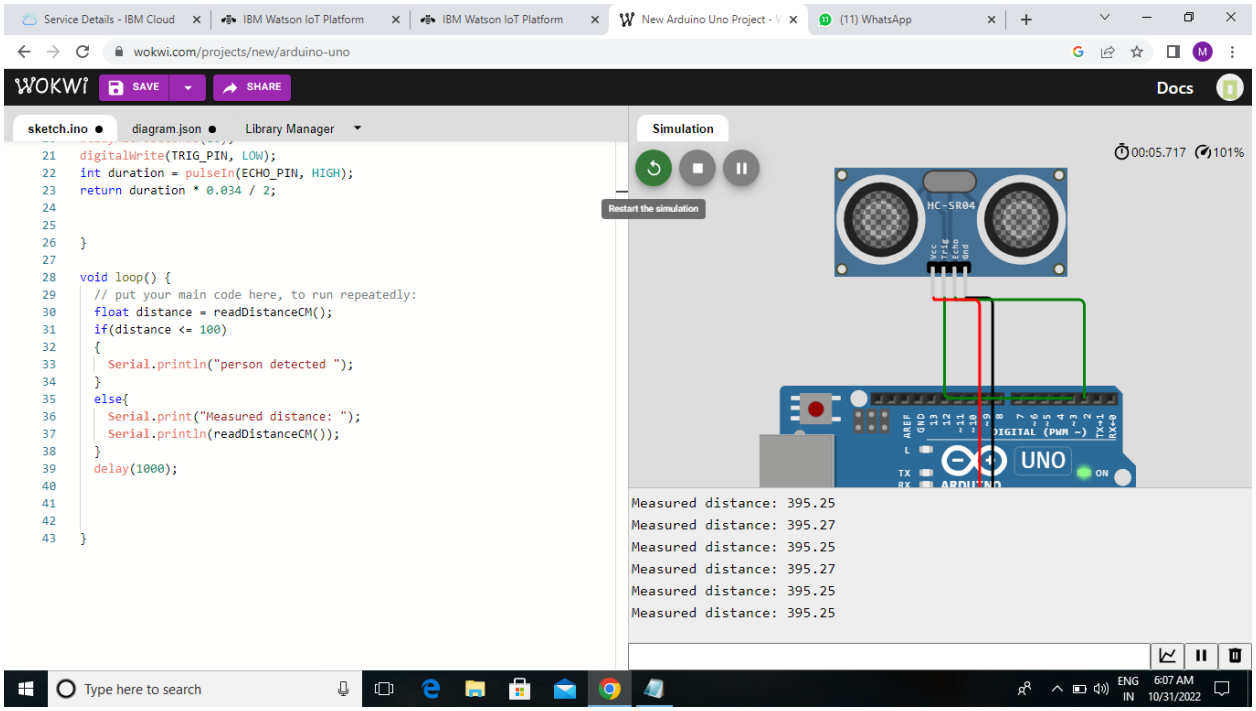
Solution

```
 #define ECHO_PIN 2

#define TRIG_PIN 3

#define organization =”74rqq7”

#define deviceType=” Arduino”

#define deviceId =”54321”

#define authMethod ="use-token-auth"

#define authToken =”yrMEE6&w78QOYrdG+E”


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);




}
```

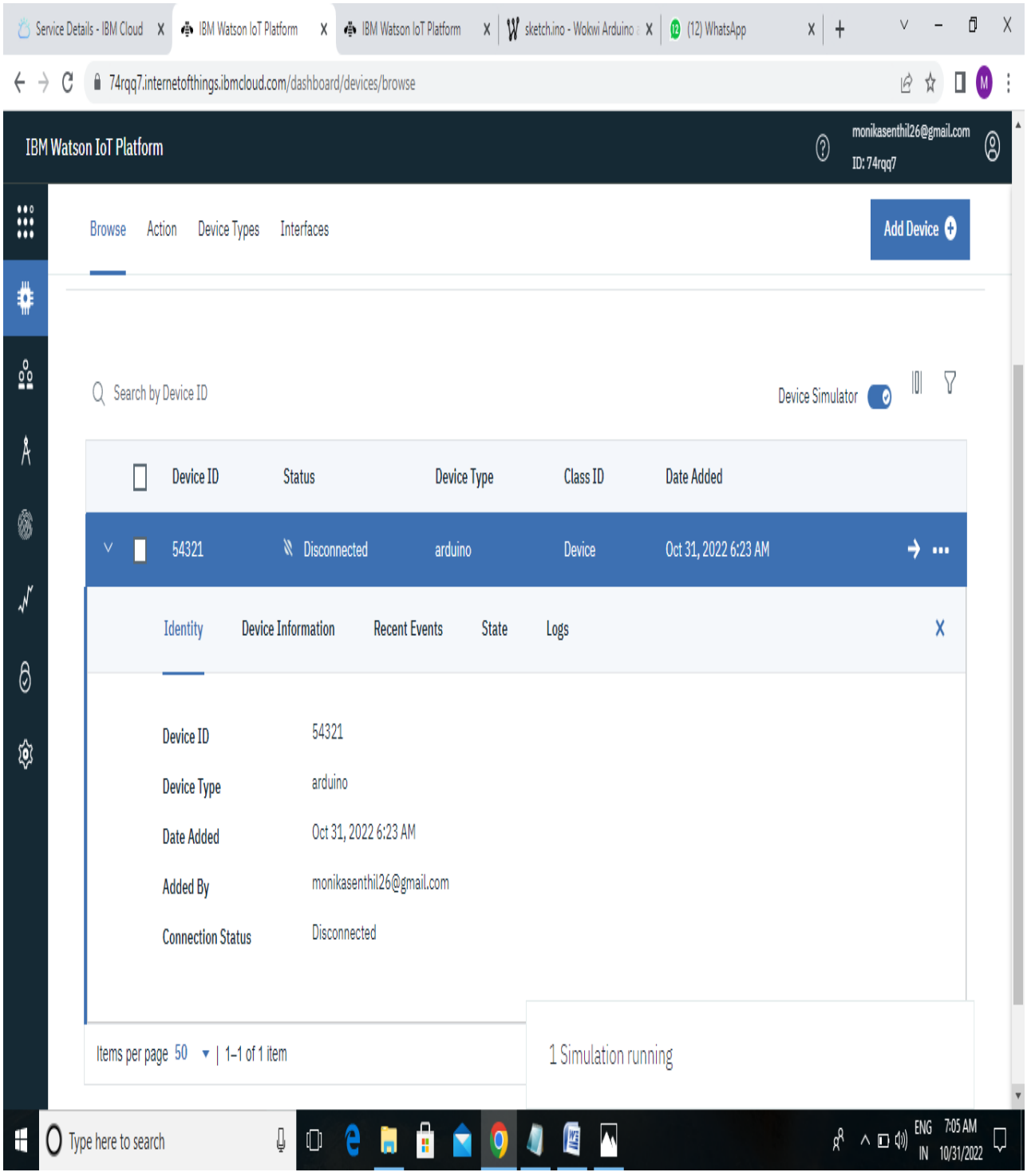

Service Details - IBM Cloud
IBM Watson IoT Platform
IBM Watson IoT Platform
New Arduino Uno Project -
(11) WhatsApp
wokwi.com/projects/new/arduino-uno
WOKWI
SAVE
SHARE
Docs
sketch.ino
diagram.json
Library Manager
Simulation
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization ="74rqq7"
#define deviceType=" Arduino"
#define deviceId ="54321"
#define authMethod ="use-token-auth"
#define authToken ="9876543210"
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();
HC-SR04
UNO
ARDUINO
Type here to search
ENG
IN
6:06 AM
10/31/2022



Wokwi link: https://wokwi.com/projects/347039661873431124

IBM CLOUD

Device Recent Events


Service Details - IBM Cloud
IBM Watson IoT Platform
IBM Watson IoT Platform
sketch.ino - Wokwi Arduino
(12) WhatsApp
74rqq7.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
monikasenthil26@gmail.com
ID: 74rqq7
Browse
Action
Device Types
Interfaces
Add Device
Search by Device ID
Device Simulator
Device ID
Status
Device Type
Class ID
Date Added
54321
Disconnected
arduino
Device
Oct 31, 2022 6:23 AM
Identity
Device Information
Recent Events
State
Logs
Device ID
54321
Device Type
arduino
Date Added
Oct 31, 2022 6:23 AM
Added By
monikasenthil26@gmail.com
Connection Status
Disconnected
Items per page 50
1–1 of 1 item
1 Simulation running
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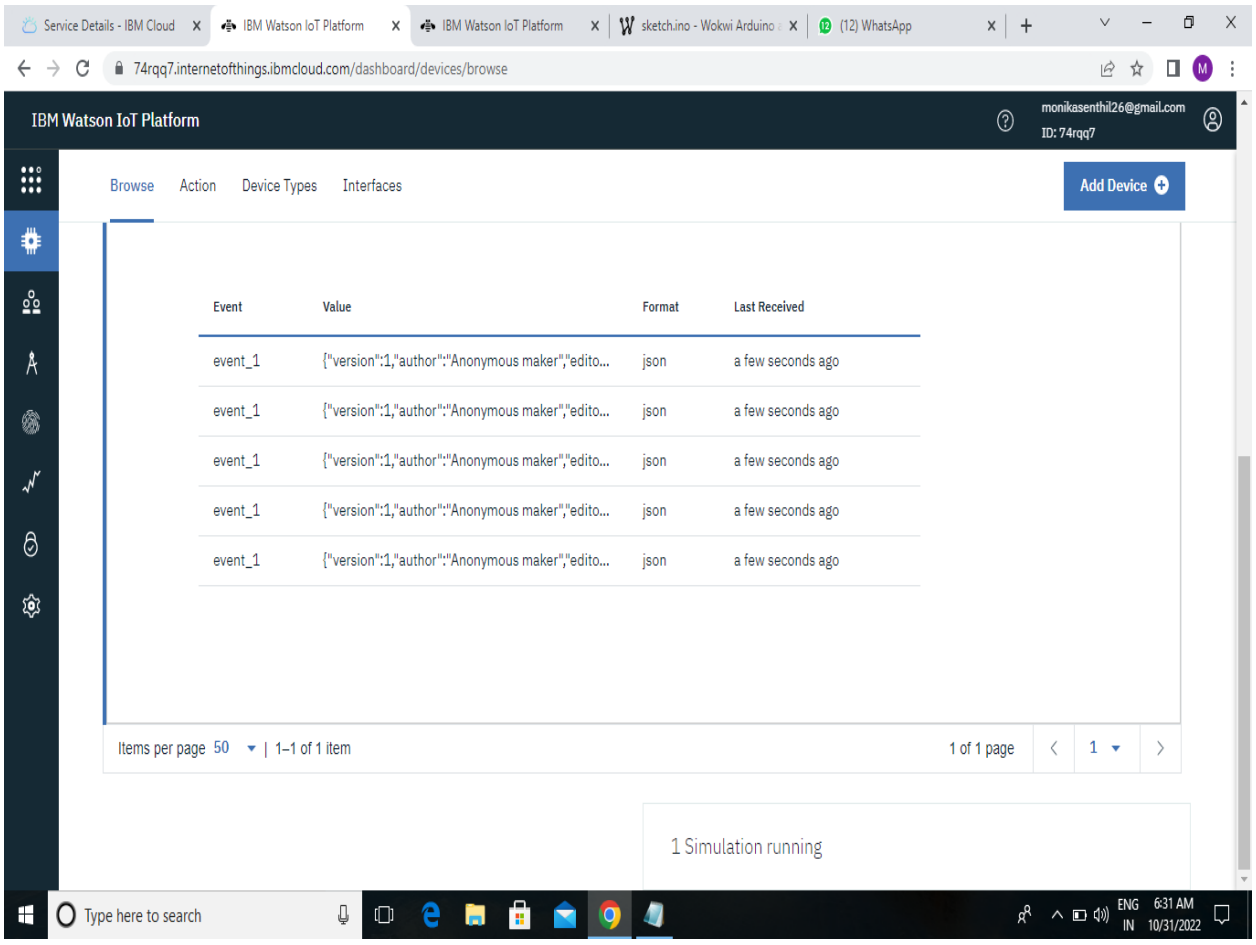
ENG
IN
7:05 AM
10/31/2022


Service Details - IBM Cloud
IBM Watson IoT Platform
IBM Watson IoT Platform
sketch.ino - Wokwi Arduino
(12) WhatsApp
74rqq7.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
monikasenthil26@gmail.com
ID: 74rqq7
Browse
Action
Device Types
Interfaces
Add Device
Event
Value
Format
Last Received
event_1
{"version":1,"author":"Anonymous maker","edito...
json
a few seconds ago
event_1
{"version":1,"author":"Anonymous maker","edito...
json
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event_1
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json
a few seconds ago
event_1
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json
a few seconds ago
event_1
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json
a few seconds ago
Items per page 50
1–1 of 1 item
1 of 1 page
1
1 Simulation running
Type here to search
ENG
IN
6:31 AM
10/31/2022