ASSIGNMENT 4

PROGRAM :

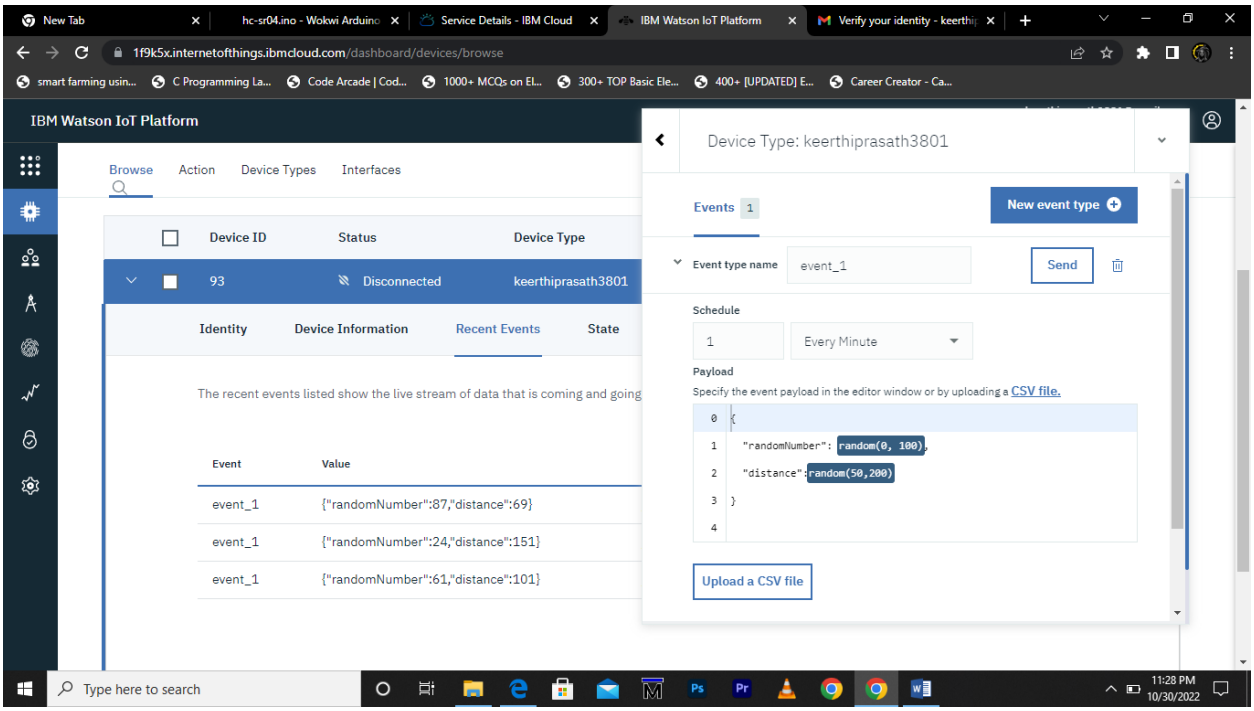
```
  #define ECHO_PIN 2
#define TRIG_PIN 3
#define organization ="zwx6lb"
#define device type ="dhars"
#define deviceId="75"
#define authmethod="token"
#define authToken="12345678"
void setup() {
  Serial.begin(115200);
  pinMode(LED_BUILTIN, OUTPUT);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
}
float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
```

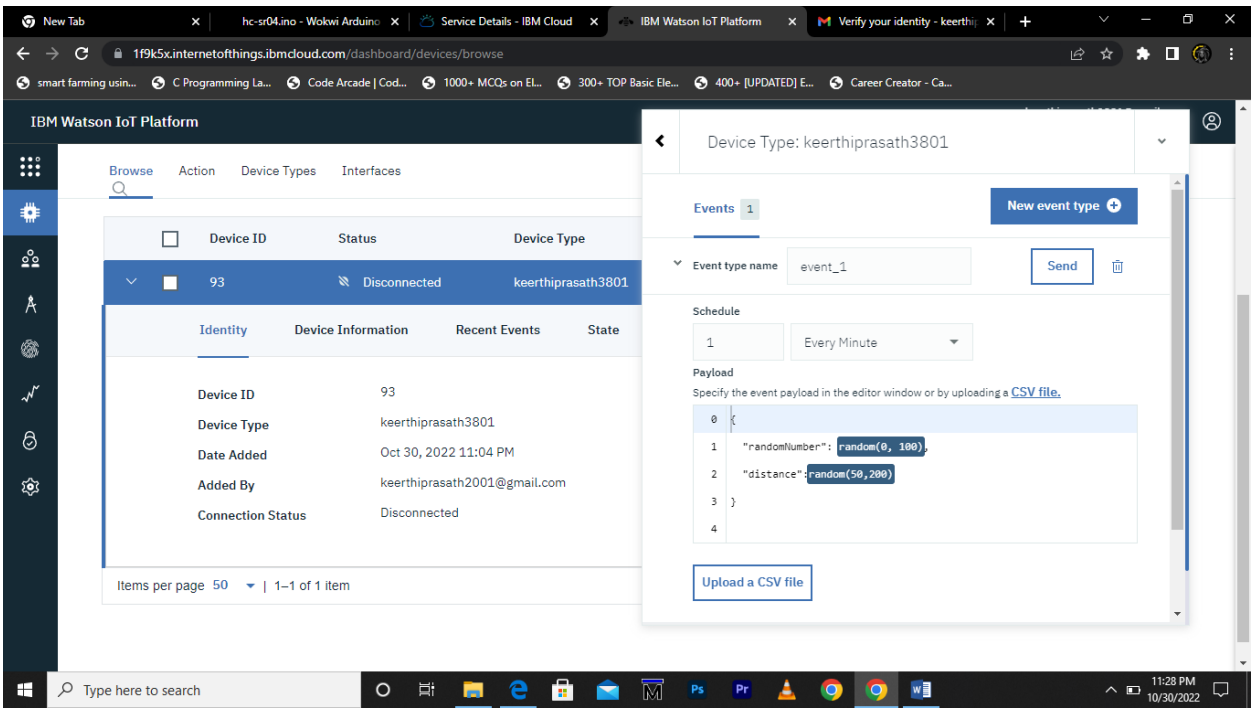
```
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}
 void loop(){
    float distance=readDistanceCM();
      if(distance<=100)
    {
       Serial.println("person detected");
    }
    else{
       Serial.print("Measured distance:");
       Serial.println(readDistanceCM());
    }
    delay(1000);
}
```

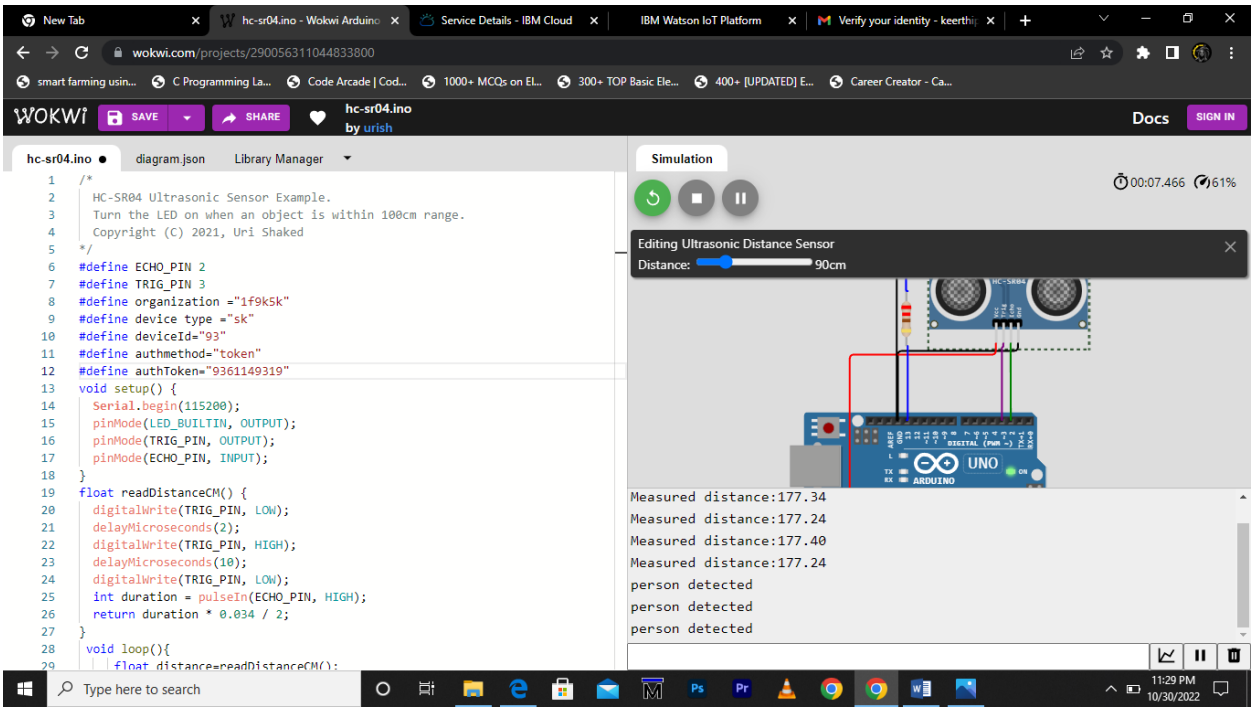
Link :

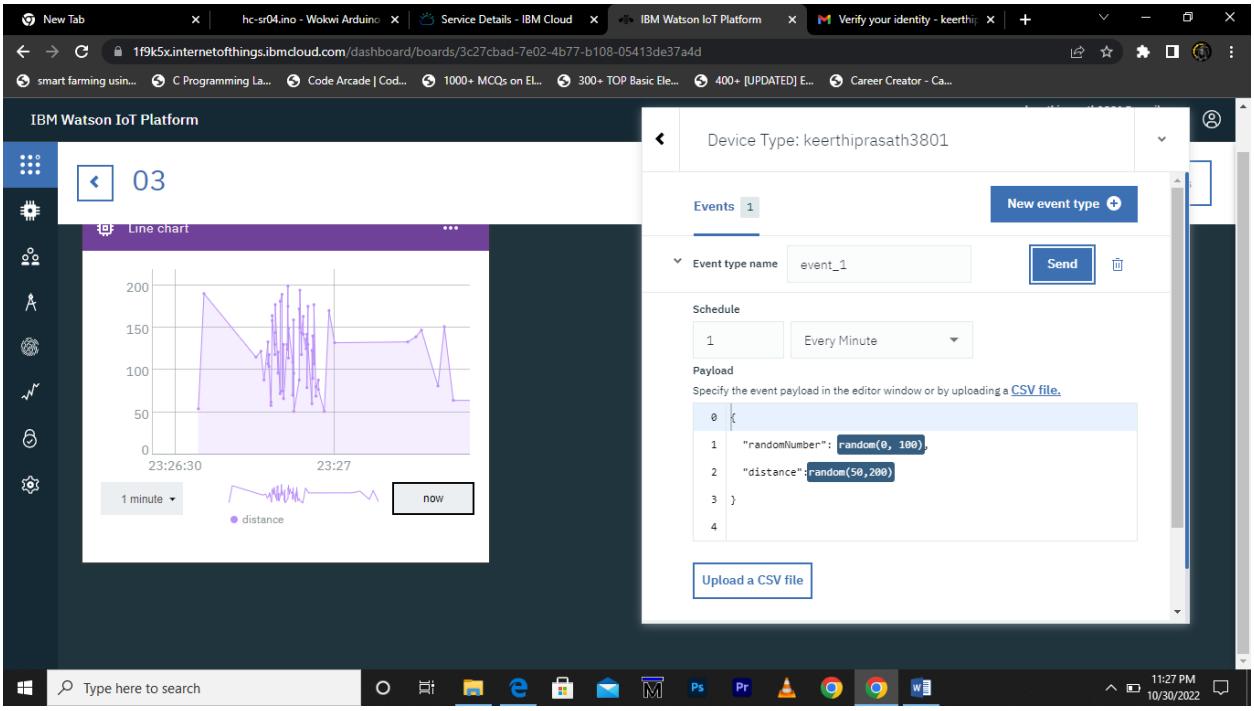
https://wokwi.com/projects/290056311044833800

IBM CLOUD :


IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Device ID
Status
Device Type
93
Disconnected
keerthiprasath3801
Identity
Device Information
Recent Events
State
The recent events listed show the live stream of data that is coming and going
Event
Value
event_1
{"randomNumber":87,"distance":69}
event_1
{"randomNumber":24,"distance":151}
event_1
{"randomNumber":61,"distance":101}
Device Type: keerthiprasath3801
Events 1
New event type
Event type name
event_1
Send
Schedule
1
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
{
"randomNumber": random(0, 100),
"distance":random(50,200)
}
Upload a CSV file


IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Device ID
Status
Device Type
93
Disconnected
keerthiprasath3801
Identity
Device Information
Recent Events
State
Device ID
93
Device Type
keerthiprasath3801
Date Added
Oct 30, 2022 11:04 PM
Added By
keerthiprasath2001@gmail.com
Connection Status
Disconnected
Items per page 50
1–1 of 1 item
Device Type: keerthiprasath3801
Events 1
New event type
Event type name
event_1
Send
Schedule
1
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
{
"randomNumber": random(0, 100),
"distance":random(50,200)
}
Upload a CSV file


New Tab
hc-sr04.ino - Wokwi Arduino
Service Details - IBM Cloud
IBM Watson IoT Platform
Verify your identity - keerthi
wokwi.com/projects/290056311044833800
WOKWI
SAVE
SHARE
hc-sr04.ino
by urish
Docs
SIGN IN
hc-sr04.ino
diagram.json
Library Manager
/*
HC-SR04 Ultrasonic Sensor Example.
Turn the LED on when an object is within 100cm range.
Copyright (C) 2021, Uri Shaked
*/
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization "1f9k5k"
#define device type "sk"
#define deviceId="93"
#define authmethod="token"
#define authToken="9361149319"
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 * 0.034 / 2;
}
void loop(){
Simulation
00:07.466
61%
Editing Ultrasonic Distance Sensor
Distance:
90cm
Measured distance:177.34
Measured distance:177.24
Measured distance:177.40
Measured distance:177.24
person detected
person detected
person detected
Type here to search
11:29 PM
10/30/2022


New Tab
hc-sr04.ino - Wokwi Arduino
Service Details - IBM Cloud
IBM Watson IoT Platform
Verify your identity - keerthi
1f9k5x.internetofthings.ibmcloud.com/dashboard/boards/3c27cbad-7e02-4b77-b108-05413de37a4d
IBM Watson IoT Platform
03
Line chart
200
150
100
50
0
23:26:30
23:27
1 minute
now
distance
Device Type: keerthiprasath3801
Events 1
New event type
Event type name
event_1
Send
Schedule
1
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
{
"randomNumber": random(0, 100),
"distance":random(50,200)
}
Upload a CSV file
Type here to search
11:27 PM
10/30/2022