ASSIGNMENT-4

1. **CODE:**

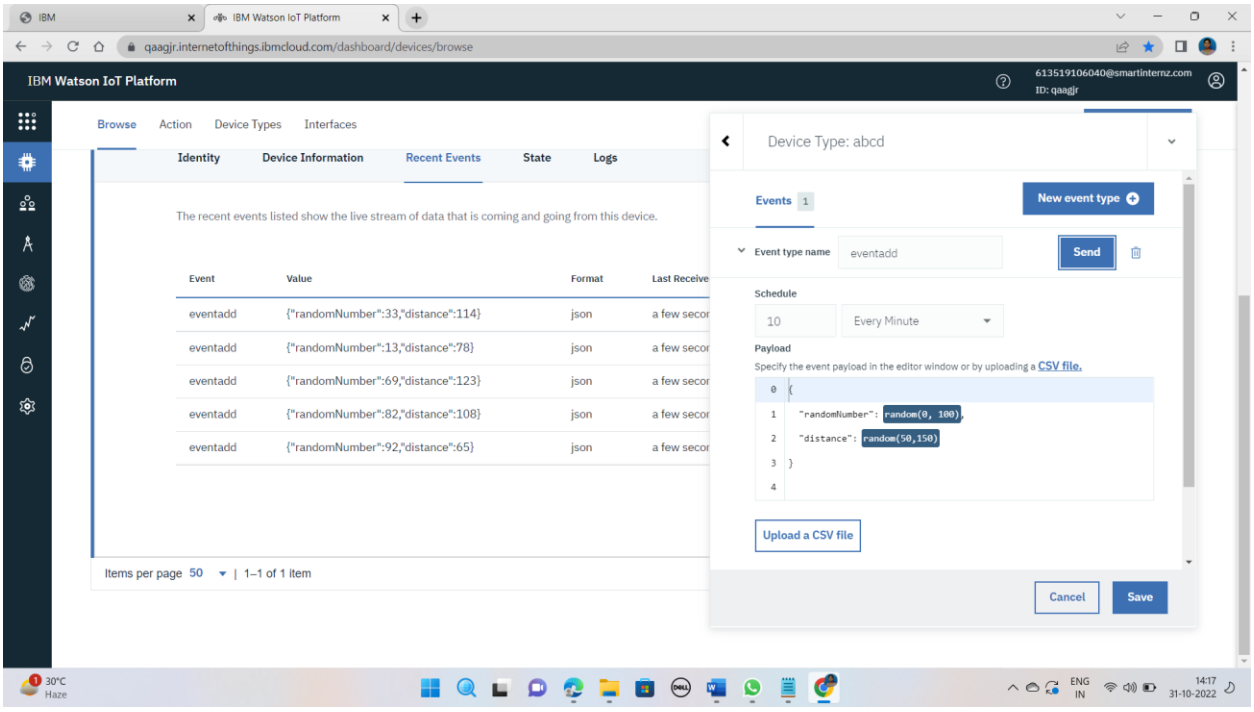
```
#define ECHO_PIN2
#define TRIG_PIN3
#define organization = "qaagjr"
#define deviceType = "abcd"
#define deviceId = "12"
#define authMethod = "token"
#define authToken = "12345678"

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();
```

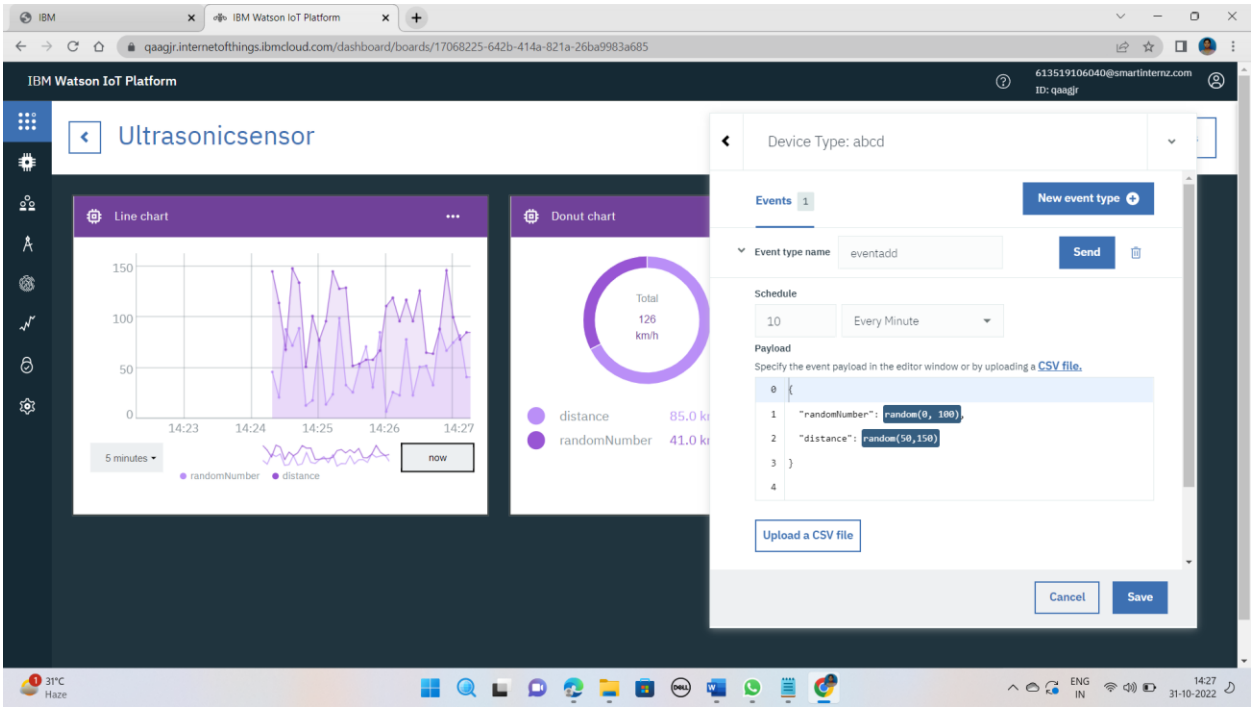
```
    if(distance<=100)
    {
      Serial.println("person detected");
    }
    else{
      Serial.print("Measured distance:");
      Serial.println(readDistanceCM());
    }
    delay(1000);
}
```

2. **LINK:**

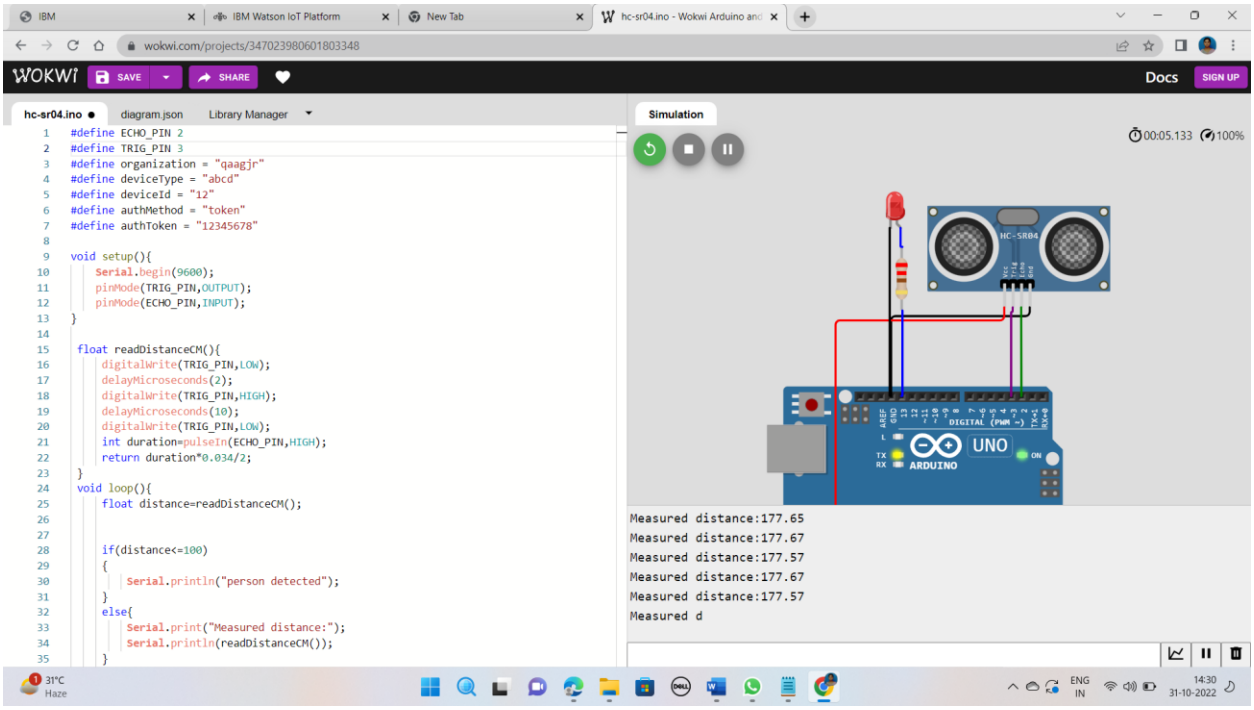
   https://wokwi.com/projects/347023980601803348

3. IBM CLOUD:


IBM Watson IoT Platform
qaagjr.internetofthings.ibmcloud.com/dashboard/devices/browse
Browse
Action
Device Types
Interfaces
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
eventadd
{"randomNumber":33,"distance":114}
{"randomNumber":13,"distance":78}
{"randomNumber":69,"distance":123}
{"randomNumber":82,"distance":108}
{"randomNumber":92,"distance":65}
json
Items per page 50
1–1 of 1 item
Device Type: abcd
Events 1
New event type
Event type name
eventadd
Send
Schedule
10
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
"randomNumber": random(0, 100),
"distance": random(50,150)
Upload a CSV file
Cancel
Save


IBM Watson IoT Platform
qaagjr.internetofthings.ibmcloud.com/dashboard/boards/17068225-642b-414a-821a-26ba9983a685
Ultrasonicsensor
Line chart
Donut chart
Total
126
km/h
distance
randomNumber
5 minutes
now
Device Type: abcd
Events 1
New event type
Event type name
eventadd
Send
Schedule
10
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
"randomNumber": random(0, 100),
"distance": random(50,150)
Upload a CSV file
Cancel
Save

4. WOOKI:


wokwi.com/projects/347023980601803348
WOKWI
SAVE
SHARE
Docs
SIGN UP
hc-sr04.ino
diagram.json
Library Manager
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization "qaagjr"
#define deviceType "abcd"
#define deviceId "12"
#define authMethod "token"
#define authToken "12345678"
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());
}
Simulation
00:05.133
100%
HC-SR04
UNO
ARDUINO
Measured distance:177.65
Measured distance:177.67
Measured distance:177.57
Measured distance:177.67
Measured distance:177.57
Measured d
31°C
Haze
ENG
IN
14:30
31-10-2022