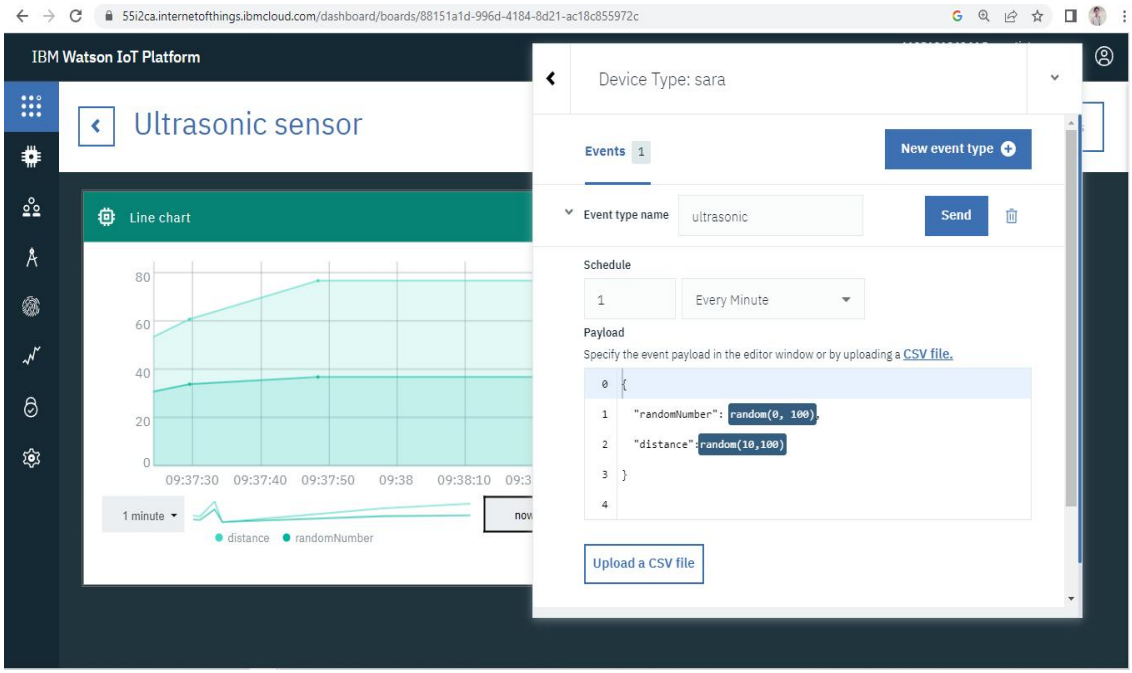
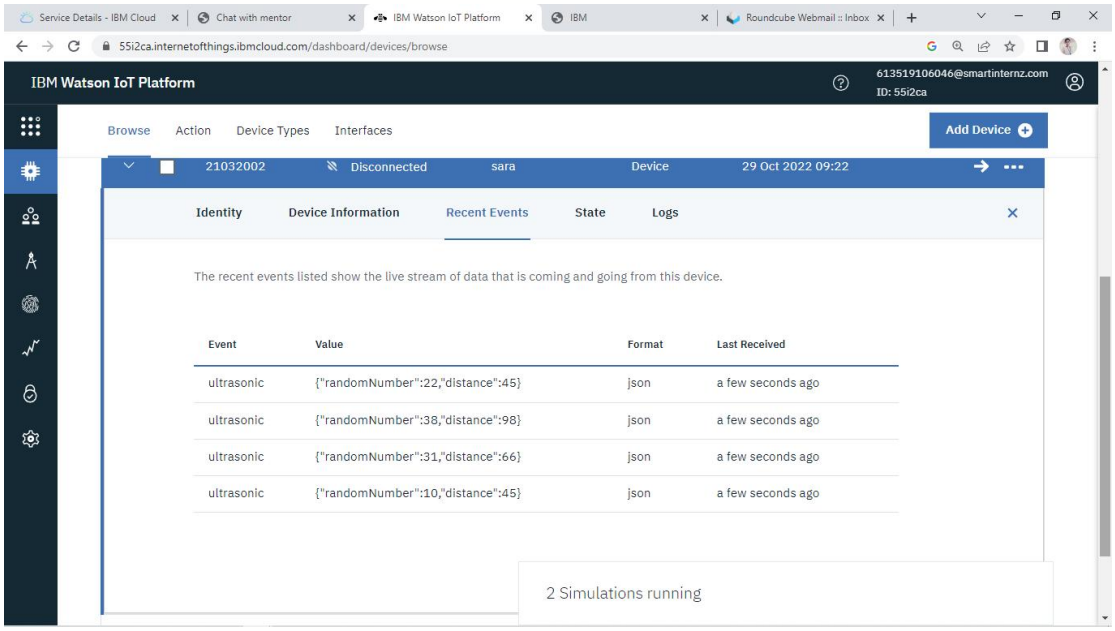
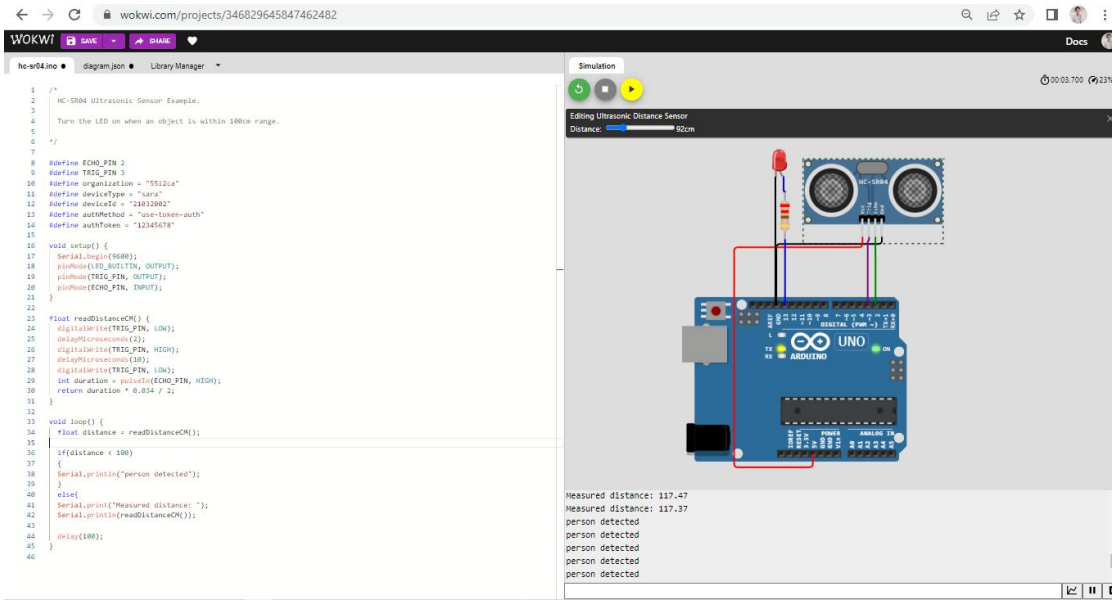
CODE

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "55i2ca"
#define deviceType = "sara"
#define deviceId = "21032002"
#define authMethod = "use-token-auth"
#define authToken = "12345678"

void setup() {
  Serial.begin(9600);
  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(100);
}
```


55i2ca.internetofthings.ibmcloud.com/dashboard/boards/88151a1d-996d-4184-8d21-ac18c855972c
IBM Watson IoT Platform
Ultrasonic sensor
Line chart
80
60
40
20
0
09:37:30
09:37:40
09:37:50
09:38
09:38:10
1 minute
distance
randomNumber
Device Type: sara
Events 1
New event type
Event type name
ultrasonic
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(10,100)
}
Upload a CSV file


55i2ca.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
613519106046@smartinternz.com
ID: 55i2ca
Browse
Action
Device Types
Interfaces
Add Device
21032002
Disconnected
sara
Device
29 Oct 2022 09:22
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
Last Received
ultrasonic
{"randomNumber":22,"distance":45}
json
a few seconds ago
ultrasonic
{"randomNumber":38,"distance":98}
json
a few seconds ago
ultrasonic
{"randomNumber":31,"distance":66}
json
a few seconds ago
ultrasonic
{"randomNumber":10,"distance":45}
json
a few seconds ago
2 Simulations running



LINK:
https://wokwi.com/projects/346829645847462482