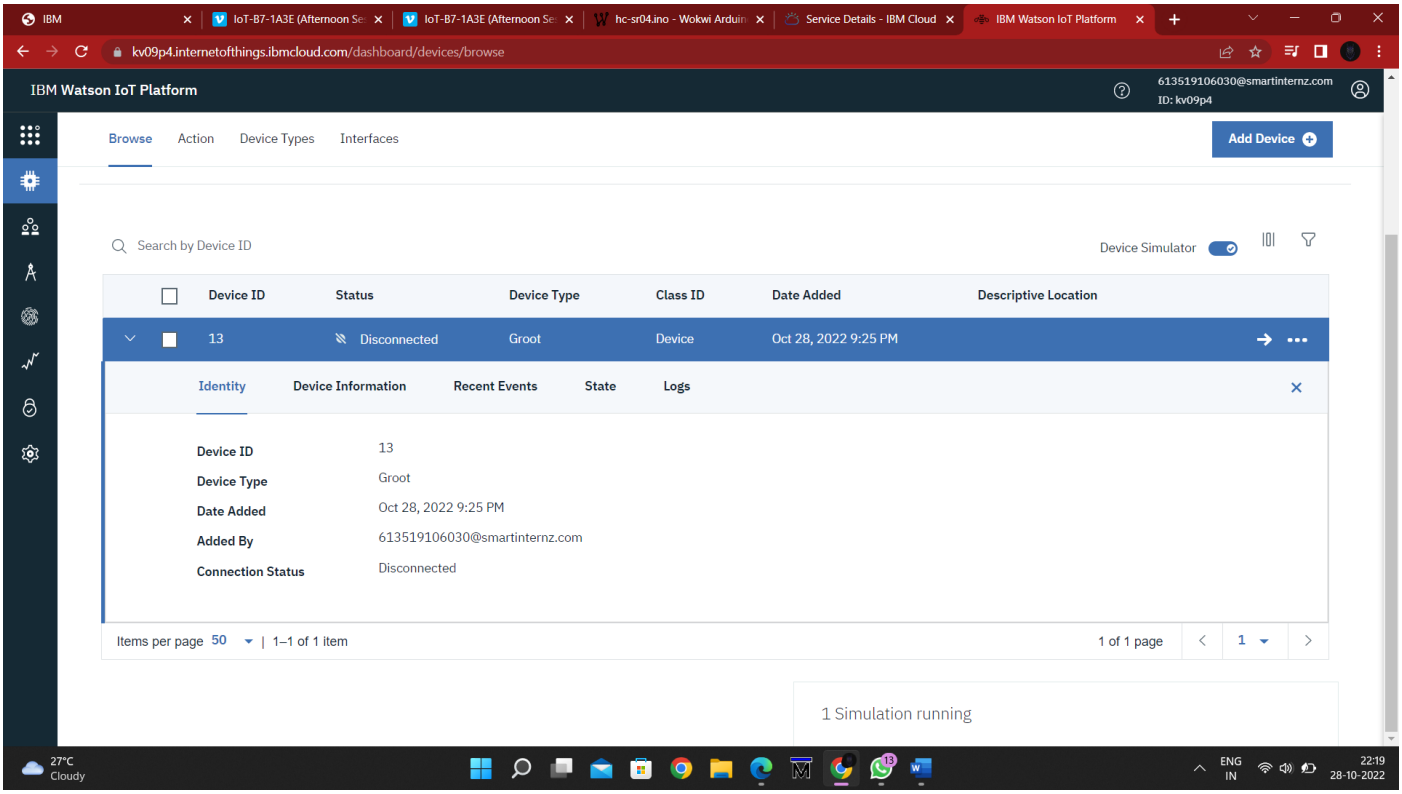
Assignment 4

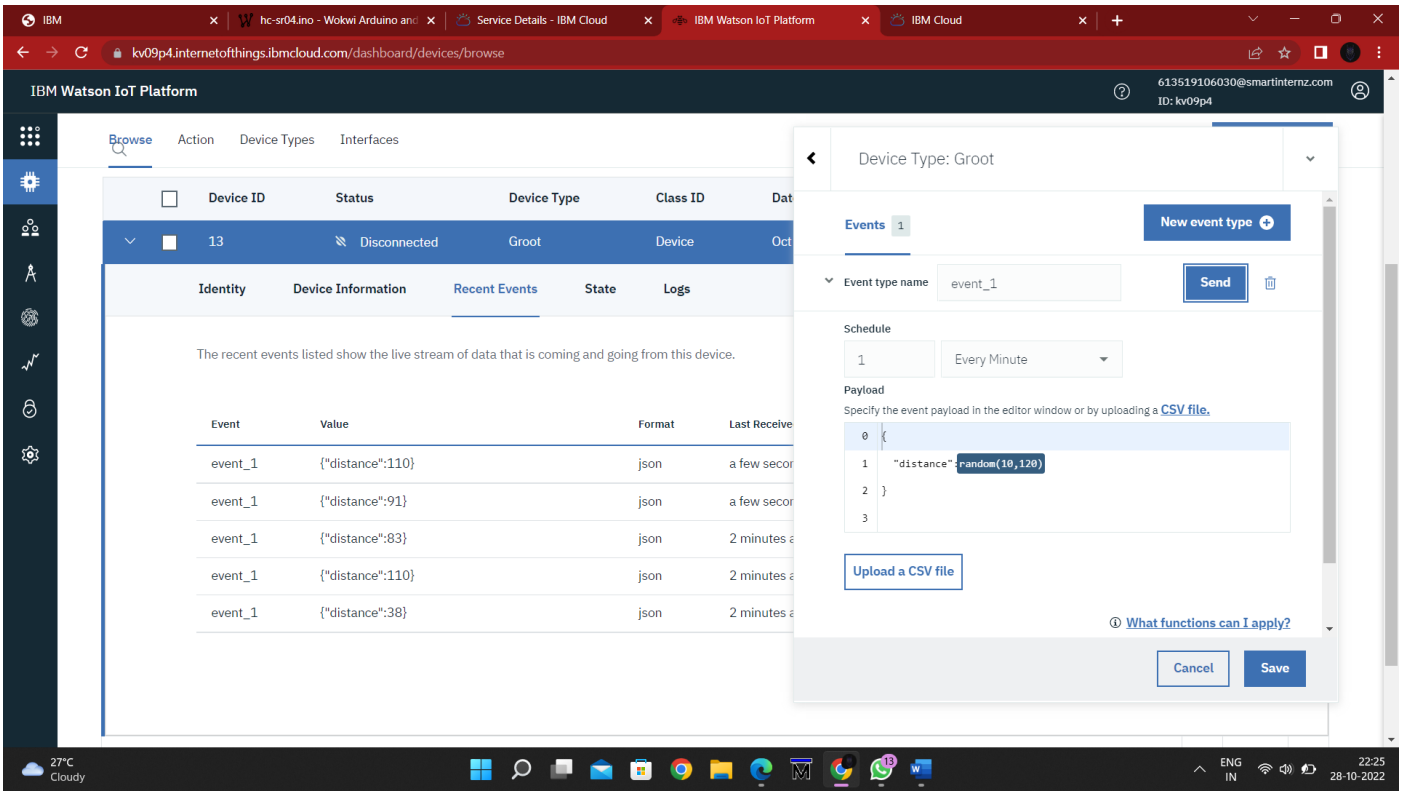
Project Link: https://wokwi.com/projects/290056311044833800

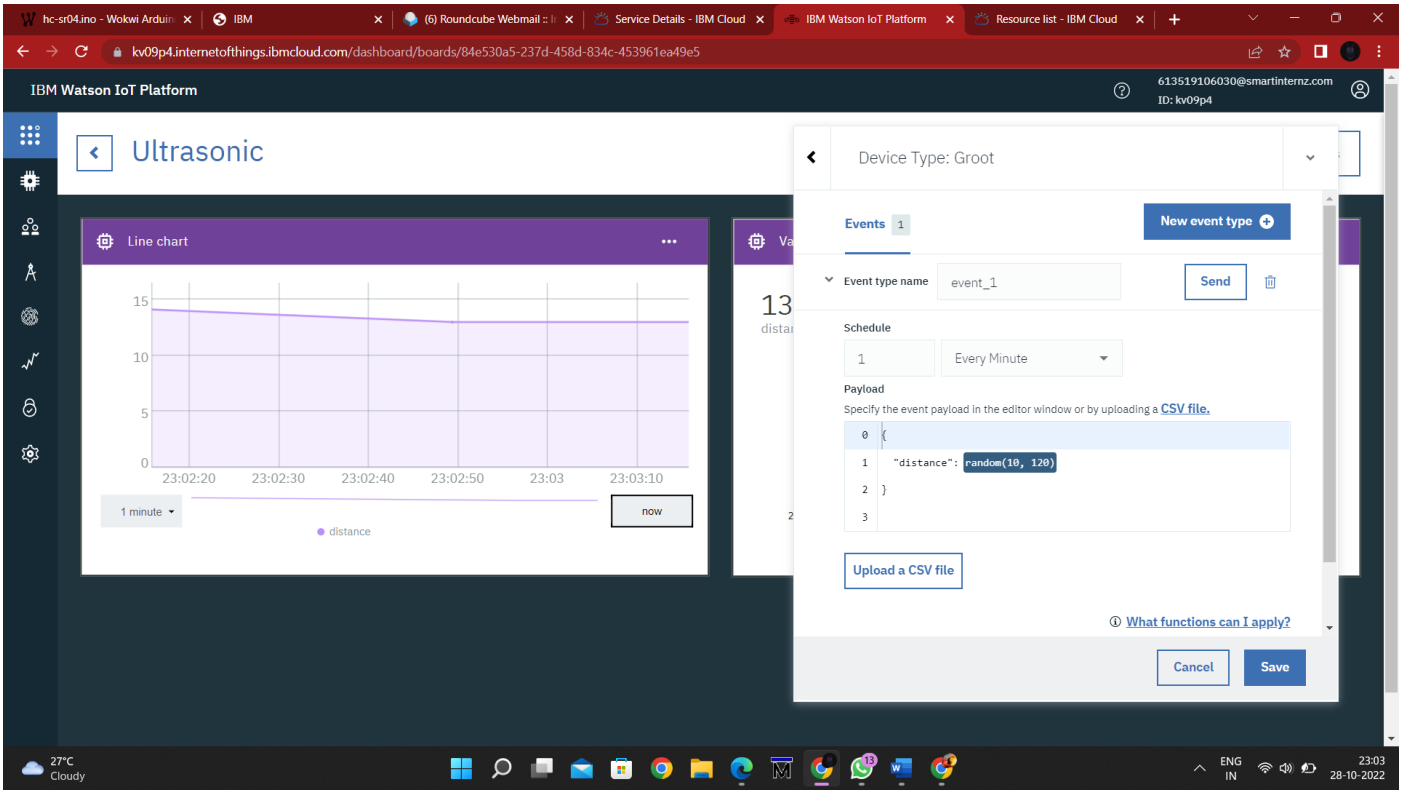
Code:

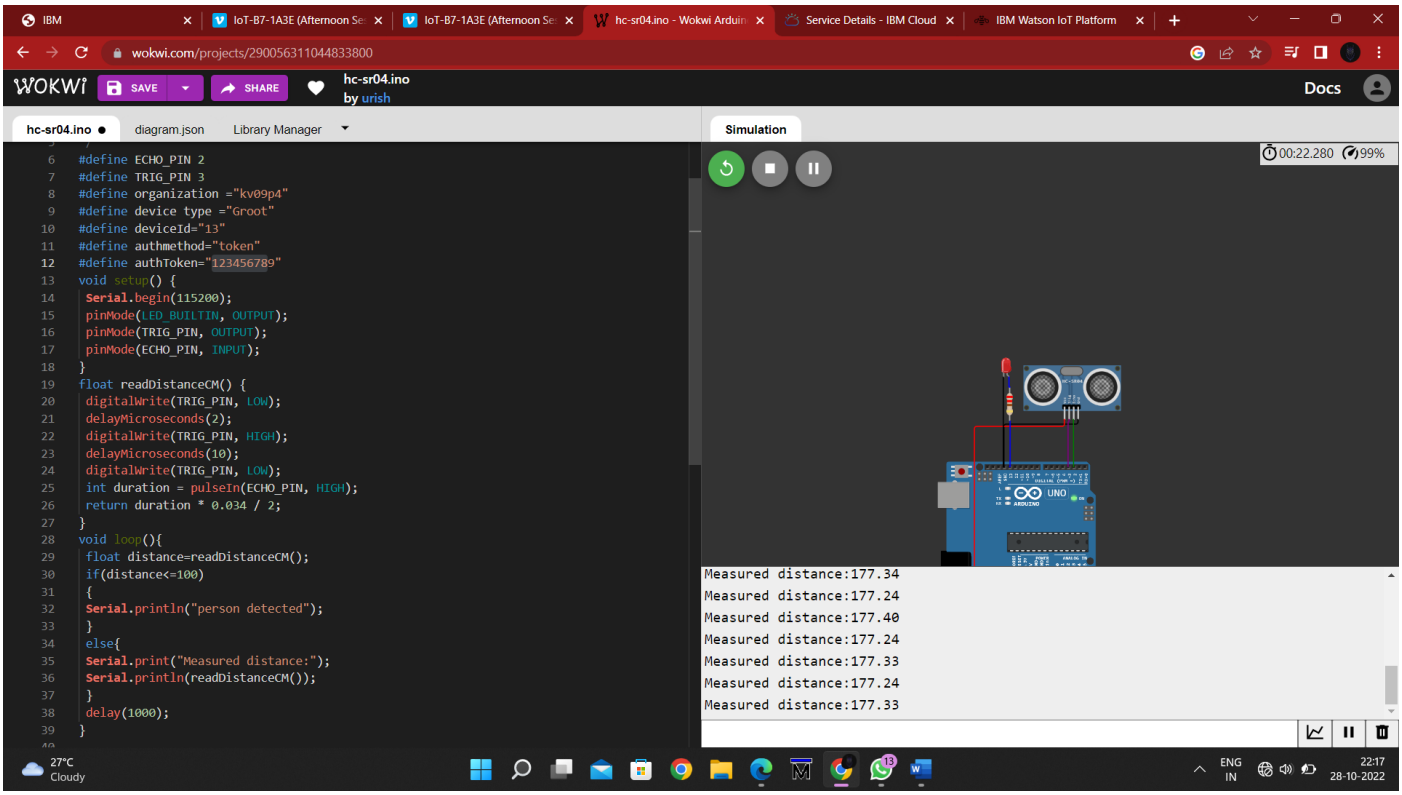
```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization ="kv09p4"
#define device type ="Groot"
#define deviceId="13"
#define authmethod="token"
#define authToken="123456789"
void setup() {
 Serial.begin(115200);
 pinMode(LED_BUILTIN, OUTPUT);
 pinMode(TRIG_PIN, OUTPUT);
 pinMode(ECHO_PIN, INPUT);
}
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);
}
```






IBM Watson IoT Platform
Ultrasonic
Line chart
Device Type: Groot
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.
{
"distance": random(10, 120)
}
Upload a CSV file
What functions can I apply?
Cancel
Save
1 minute
now
distance


WOKWI
SAVE
SHARE
hc-sr04.ino
by urish
Docs
hc-sr04.ino
diagram.json
Library Manager
Simulation
00:22.280
99%
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization "kv09p4"
#define device type "Groot"
#define deviceId="13"
#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);
}
Measured distance:177.34
Measured distance:177.24
Measured distance:177.40
Measured distance:177.24
Measured distance:177.33
Measured distance:177.24
Measured distance:177.33