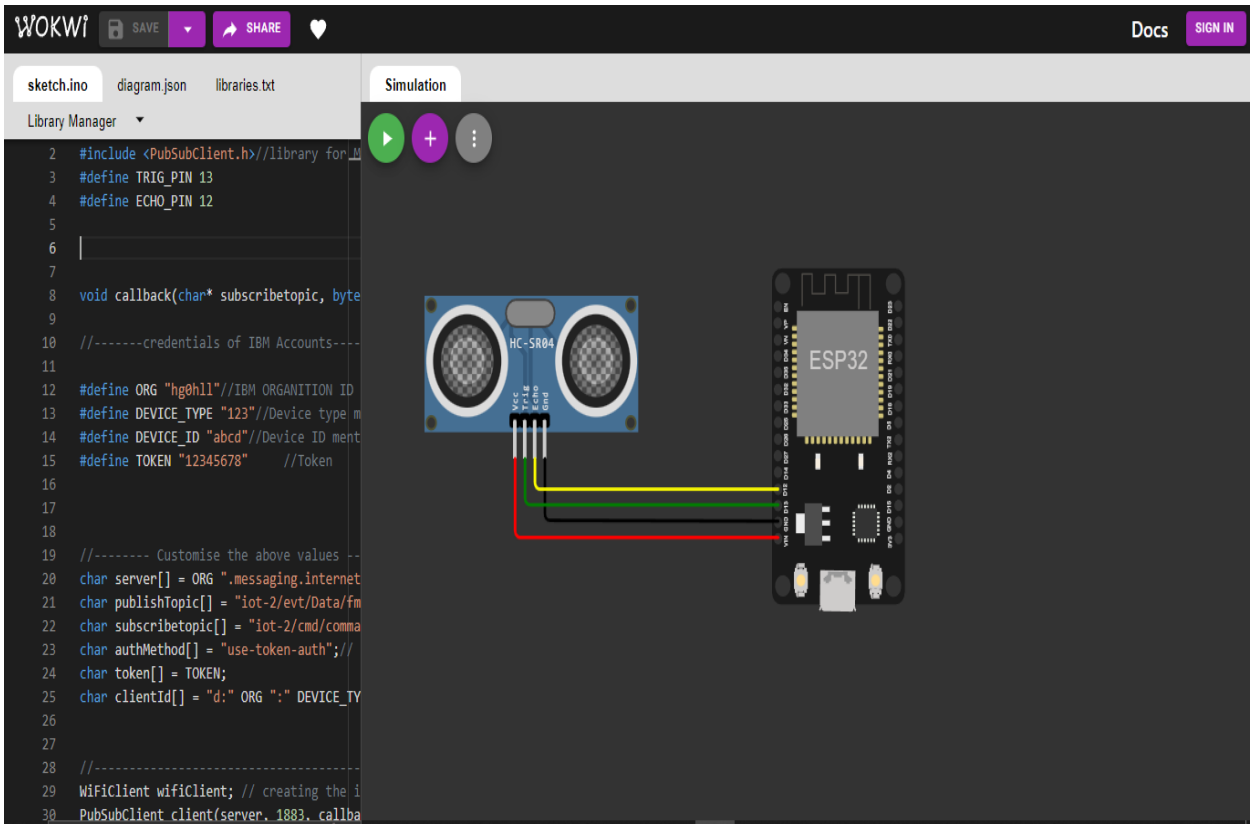
ASSIGNMENT – 4

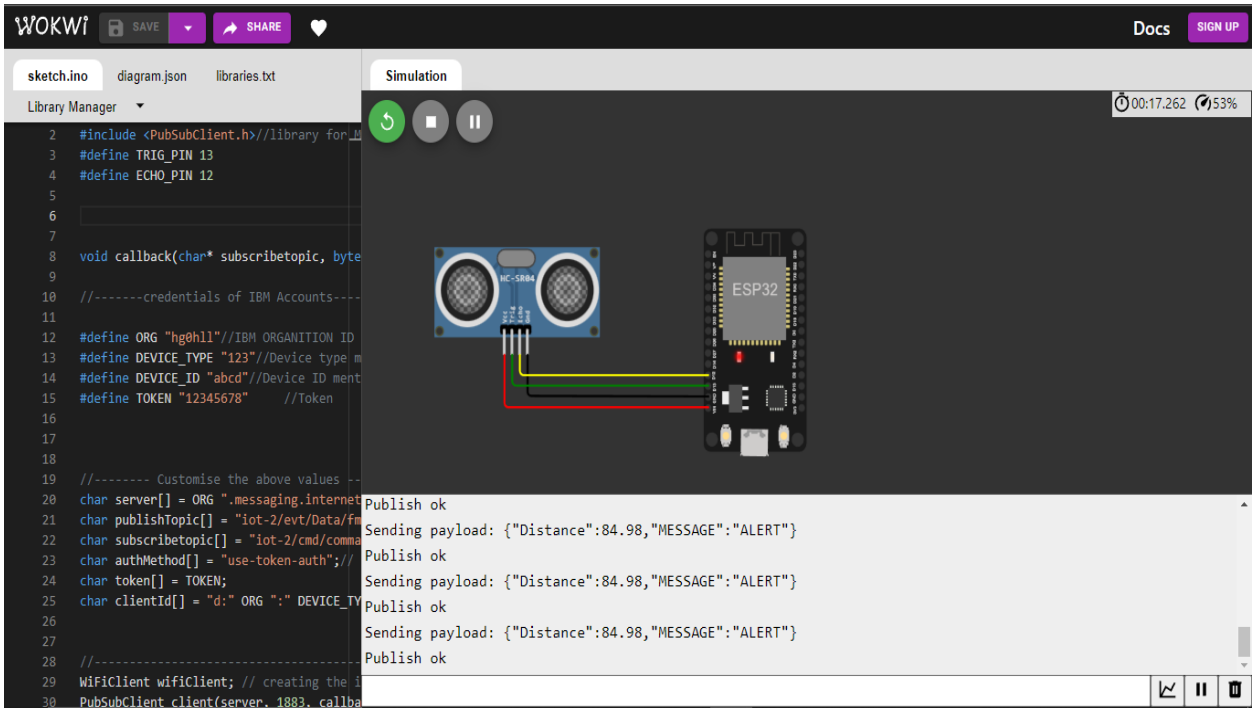
Date	05-11-2022
Team ID	
Project name	Gas leakage monitoring and alerting system

Objective:

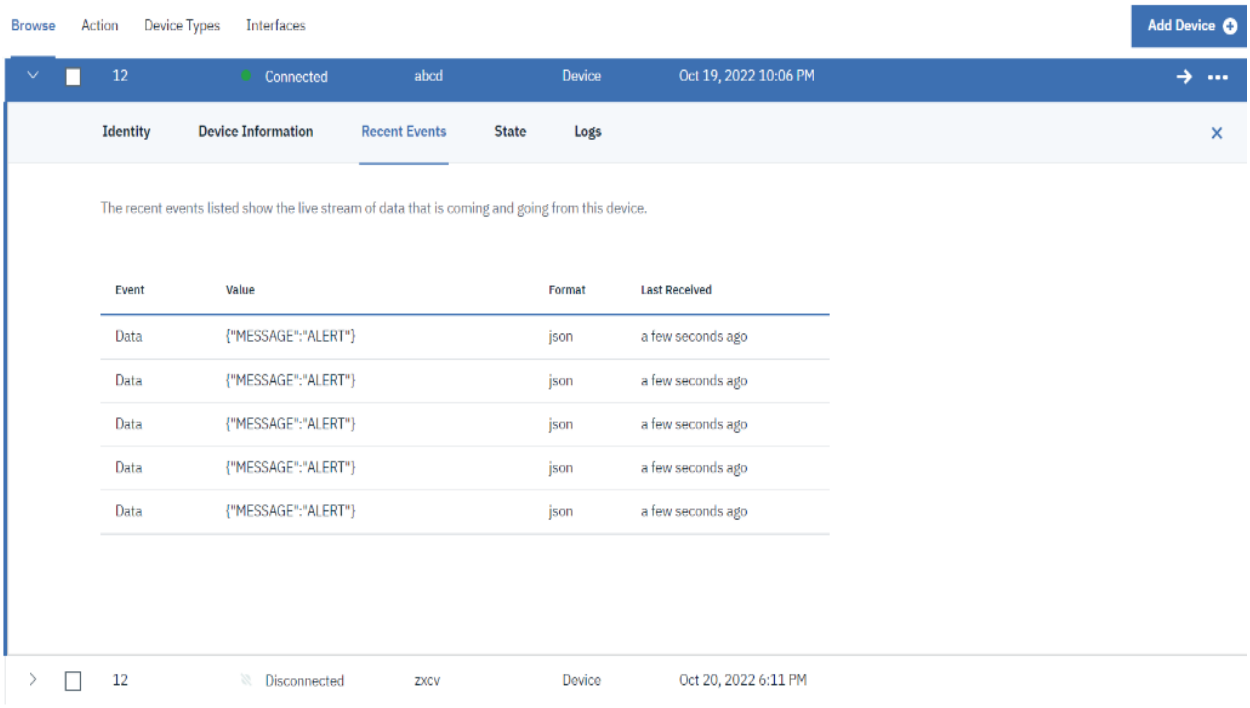
Write code and connections in wokwi for the ultrasonic sensor. Whenever the distance is less than 100 cms send an "alert" to the IBM cloud and display in the device recent events.

Circuit diagram:




WOKWi
SAVE
SHARE
Docs
SIGN UP
sketch.ino
diagram.json
libraries.txt
Library Manager
Simulation
00:17.262
53%
#include <PubSubClient.h>//library for
#define TRIG_PIN 13
#define ECHO_PIN 12
void callback(char* subscribetopic, byte
//-------credentials of IBM Accounts----
#define ORG "hg0hll"//IBM ORGANITION ID
#define DEVICE_TYPE "123"//Device type
#define DEVICE_ID "abcd"//Device ID ment
#define TOKEN "12345678" //Token
//-------- Customise the above values --
char server[] = ORG ".messaging.internet
char publishTopic[] = "iot-2/evt/Data/fi
char subscribetopic[] = "iot-2/cmd/comma
char authMethod[] = "use-token-auth";//
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TY
WiFiClient wifiClient; // creating the
PubSubClient client(server, 1883, callba
HC-SR04
ESP32
Publish ok
Sending payload: {"Distance":84.98,"MESSAGE":"ALERT"}
Publish ok
Sending payload: {"Distance":84.98,"MESSAGE":"ALERT"}
Publish ok
Sending payload: {"Distance":84.98,"MESSAGE":"ALERT"}
Publish ok

Output:


Browse
Action
Device Types
Interfaces
Add Device
12
Connected
abcd
Device
Oct 19, 2022 10:06 PM
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
Data
{"MESSAGE":"ALERT"}
json
a few seconds ago
Data
{"MESSAGE":"ALERT"}
json
a few seconds ago
Data
{"MESSAGE":"ALERT"}
json
a few seconds ago
Data
{"MESSAGE":"ALERT"}
json
a few seconds ago
Data
{"MESSAGE":"ALERT"}
json
a few seconds ago
12
Disconnected
zxcv
Device
Oct 20, 2022 6:11 PM