ASSIGNMENT 4

Assignment date	22 October 2022
Student name	AKSHAYA E
Student roll number	211419106021
Maximum marks	2 Marks

Question:

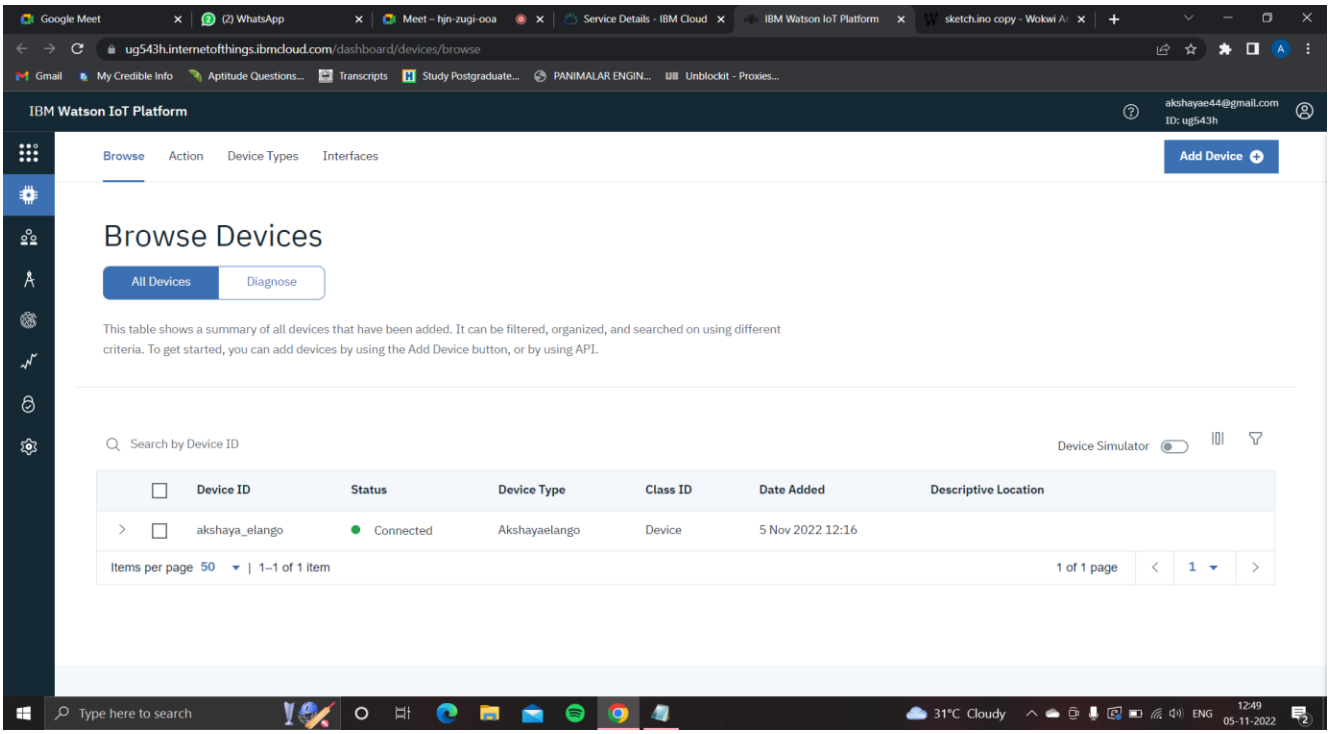
1. Write code and connections in wokwi for ultrasonic sensor. Whenever distance is less than 100 cms send “alert” to ibm cloud and display in device recent events

Solution:

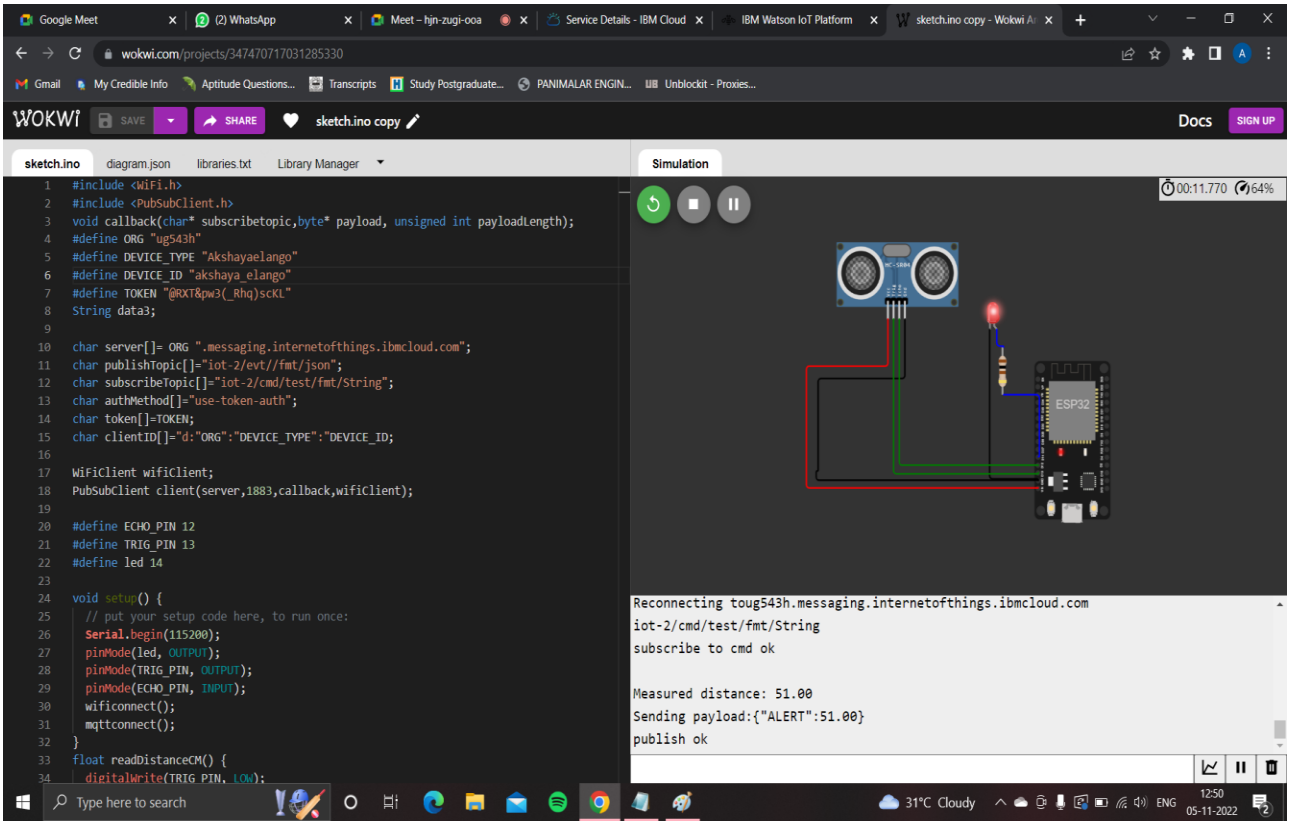
WOKWI SHARE LINK:

https://wokwi.com/projects/347470717031285330

IMAGE OF IBM CLOUD:



SIMULATION IMAGE:



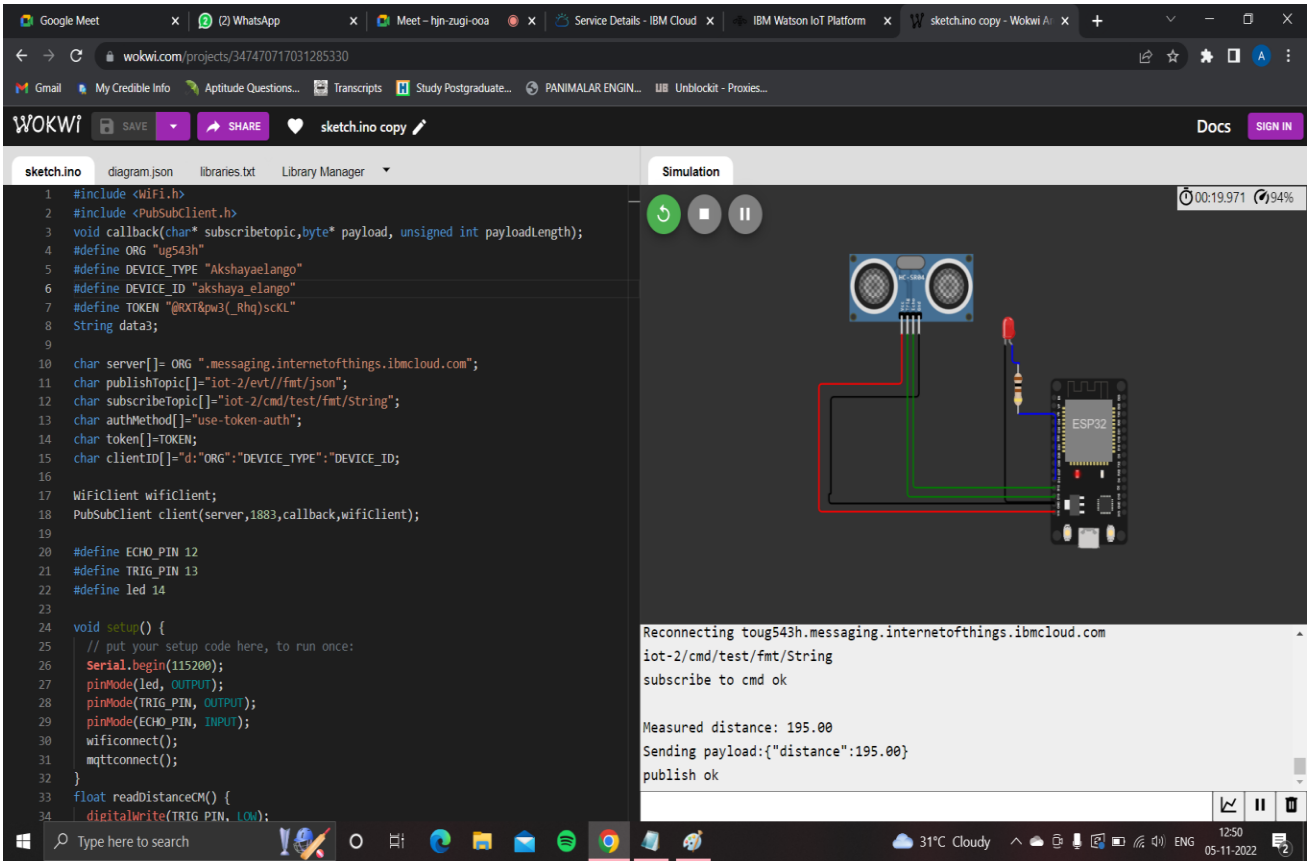

```
#include <WiFi.h>
#include <PubSubClient.h>
void callback(char* subscribetopic,byte* payload, unsigned int payloadLength);
#define ORG "ug543h"
#define DEVICE_TYPE "Akshayaelango"
#define DEVICE_ID "akshaya_elango"
#define TOKEN "@RXT&pw3(_Rhq)scKL"
String data3;

char server[]= ORG ".messaging.internetofthings.ibmcloud.com";
char publishTopic[]="iot-2/evt//fmt/json";
char subscribeTopic[]="iot-2/cmd/test/fmt/String";
char authMethod[]="use-token-auth";
char token[]=TOKEN;
char clientID[]="d:"ORG":"DEVICE_TYPE":"DEVICE_ID;

WiFiClient wifiClient;
PubSubClient client(server,1883,callback,wifiClient);

#define ECHO_PIN 12
#define TRIG_PIN 13
#define led 14

void setup() {
  // put your setup code here, to run once:
  Serial.begin(115200);
  pinMode(led, OUTPUT);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
  wificonnect();
  mqttconnect();
}
float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
```


Google Meet
(2) WhatsApp
Meet – hjn-zugi-ooa
Service Details - IBM Cloud
IBM Watson IoT Platform
sketch.ino copy - Wokwi
wokwi.com/projects/347470717031285330
Gmail
My Credible Info
Aptitude Questions...
Transcripts
Study Postgraduate...
PANIMALAR ENGIN...
Unblockit - Proxies...
WOKWI
SAVE
SHARE
sketch.ino copy
Docs
SIGN IN
sketch.ino
diagram.json
libraries.txt
Library Manager
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Simulation
00:19.971
94%
ESP32
Reconnecting toug543h.messaging.internetofthings.ibmcloud.com
iot-2/cmd/test/fmt/String
subscribe to cmd ok
Measured distance: 195.00
Sending payload:{"distance":195.00}
publish ok
Type here to search
31°C Cloudy
ENG
12:50
05-11-2022