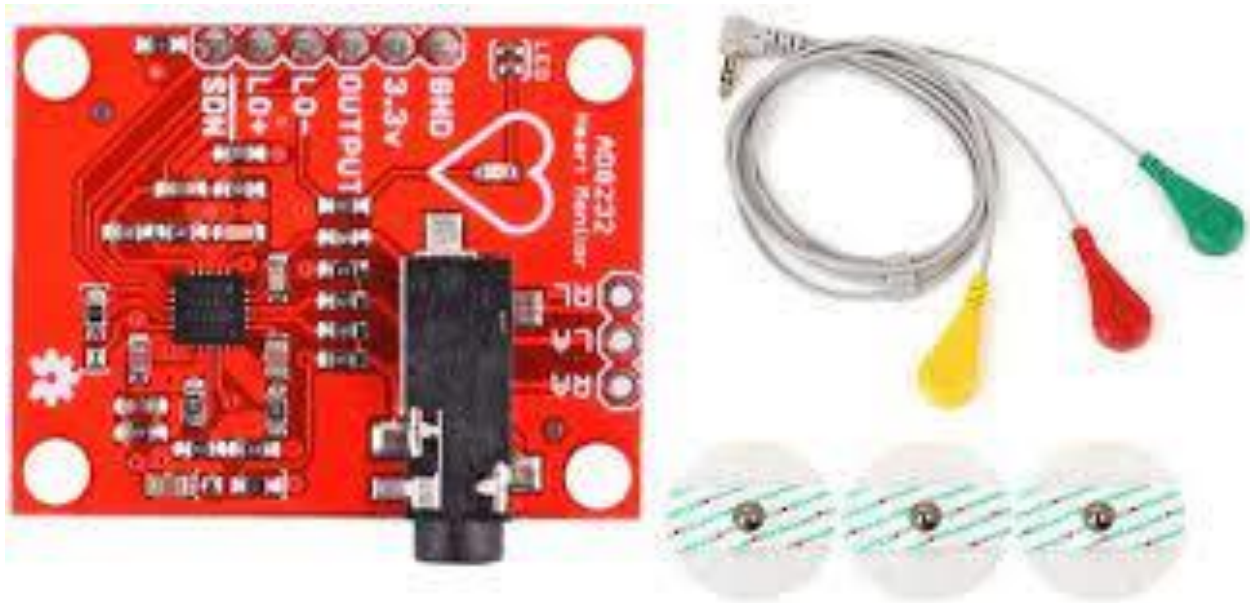


IOT PROJECT -ECG MONITORING SYSTEM

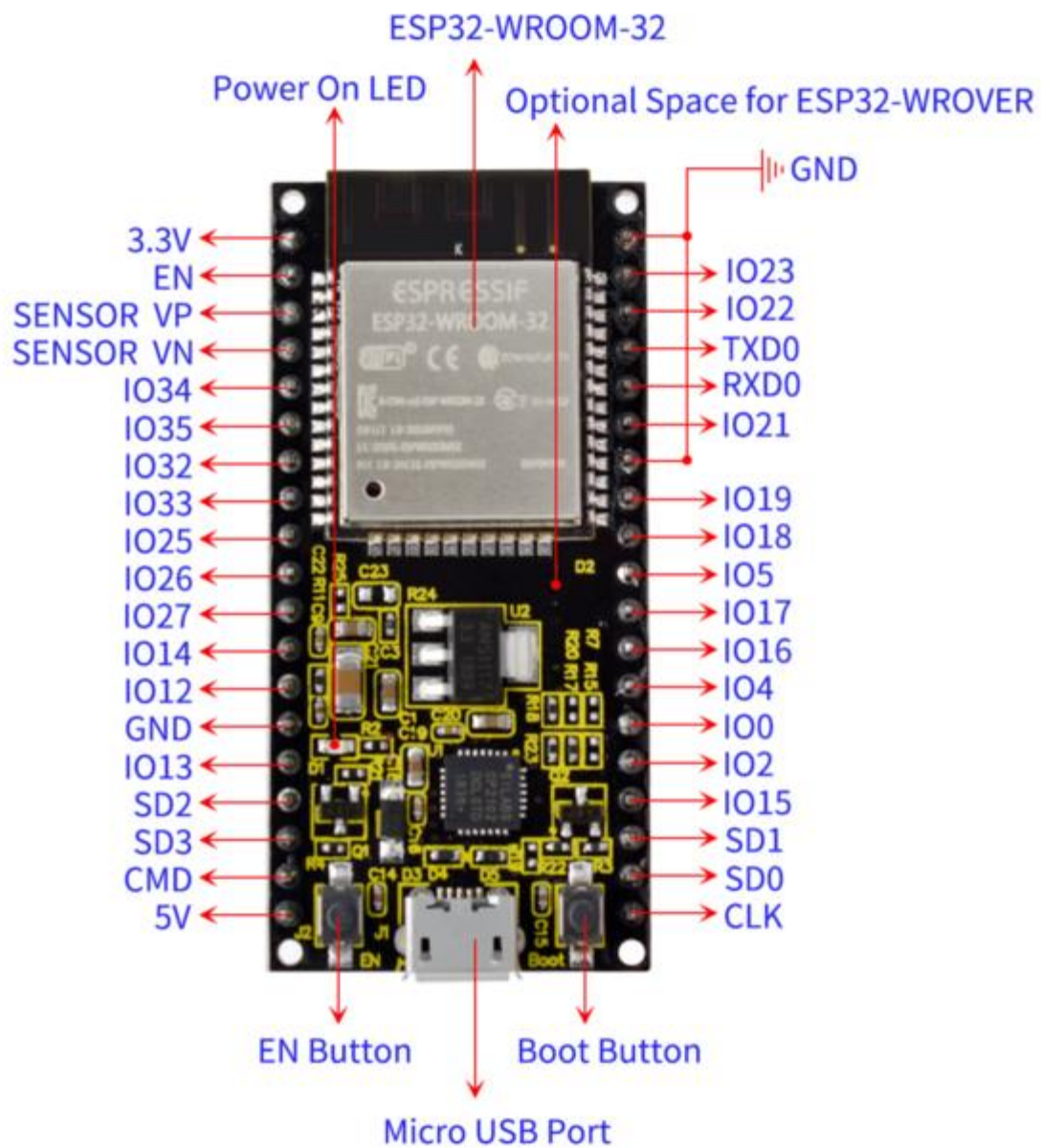
Abstract :

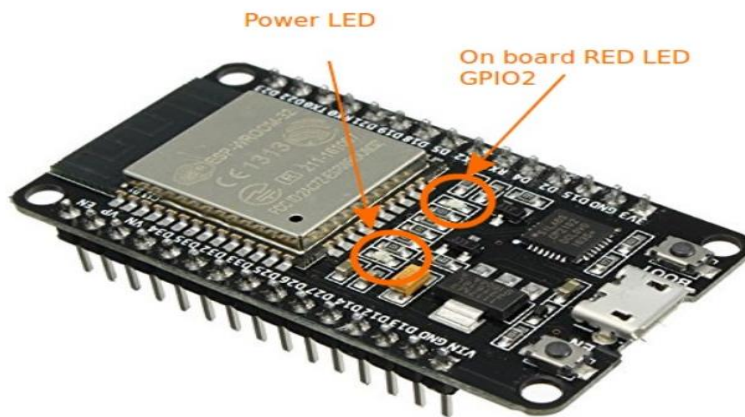
Ecg monitoring in our cloud store data . you want to see that your heart beat signal store ubidtos cloud.

DEVICE ECG SENSOR:



DEVICE ESP 32 DEVICE:



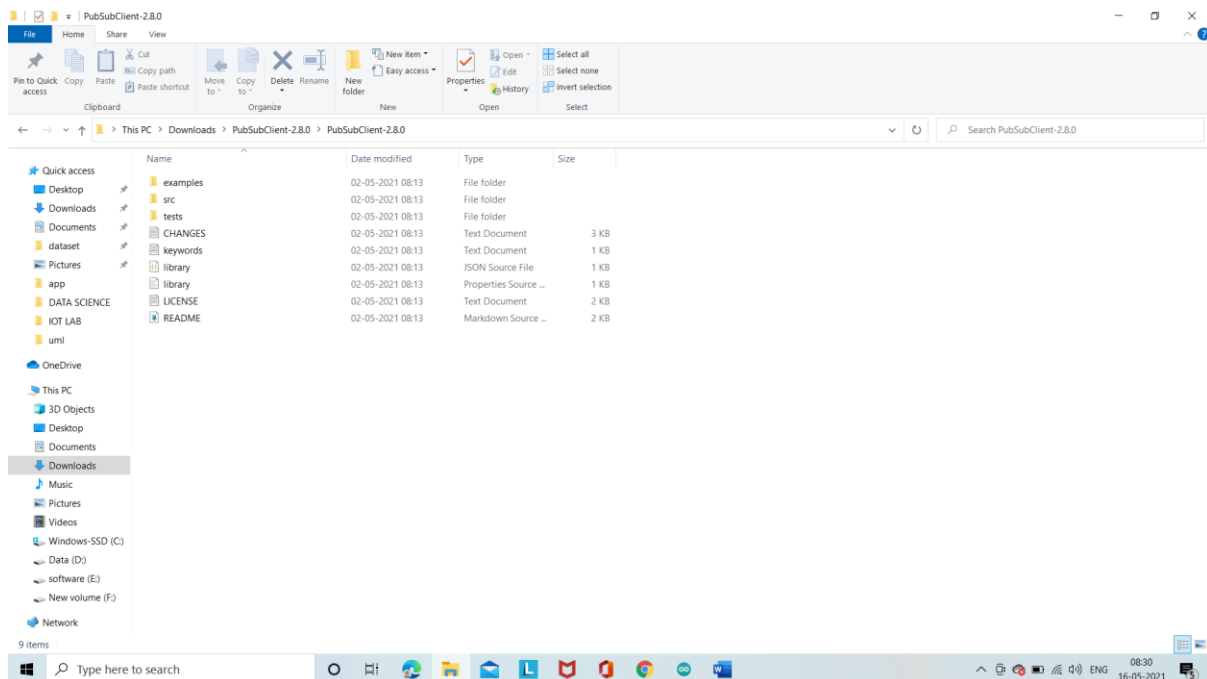


Connected device :

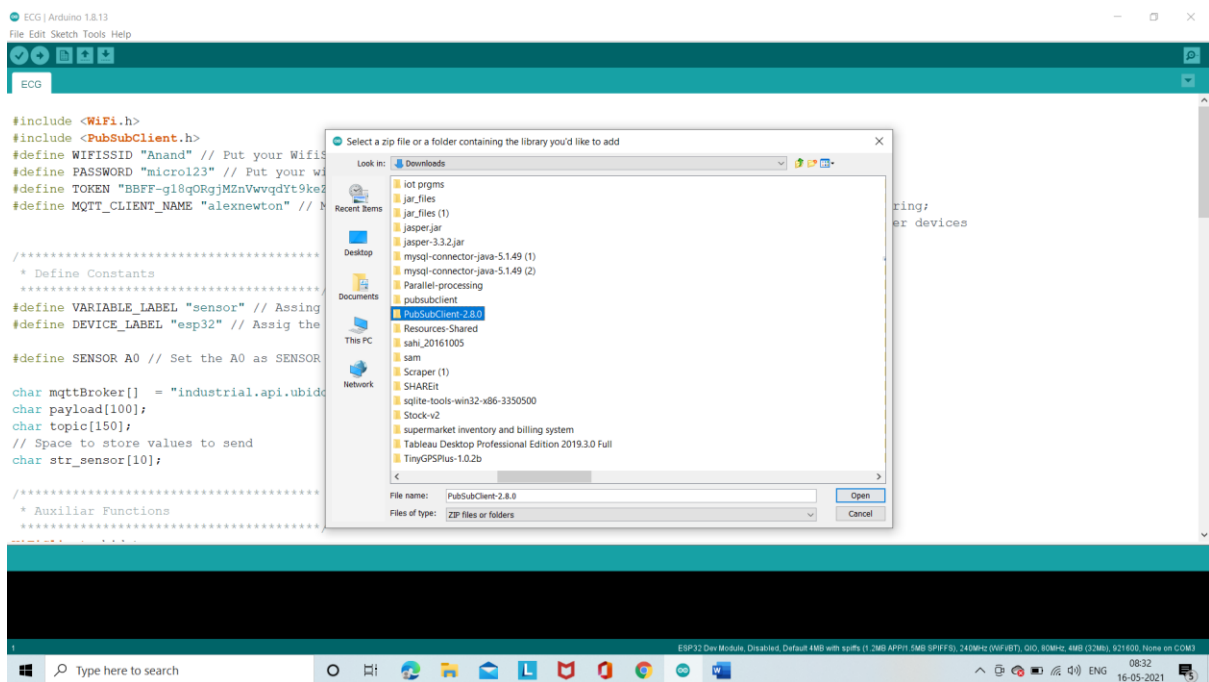
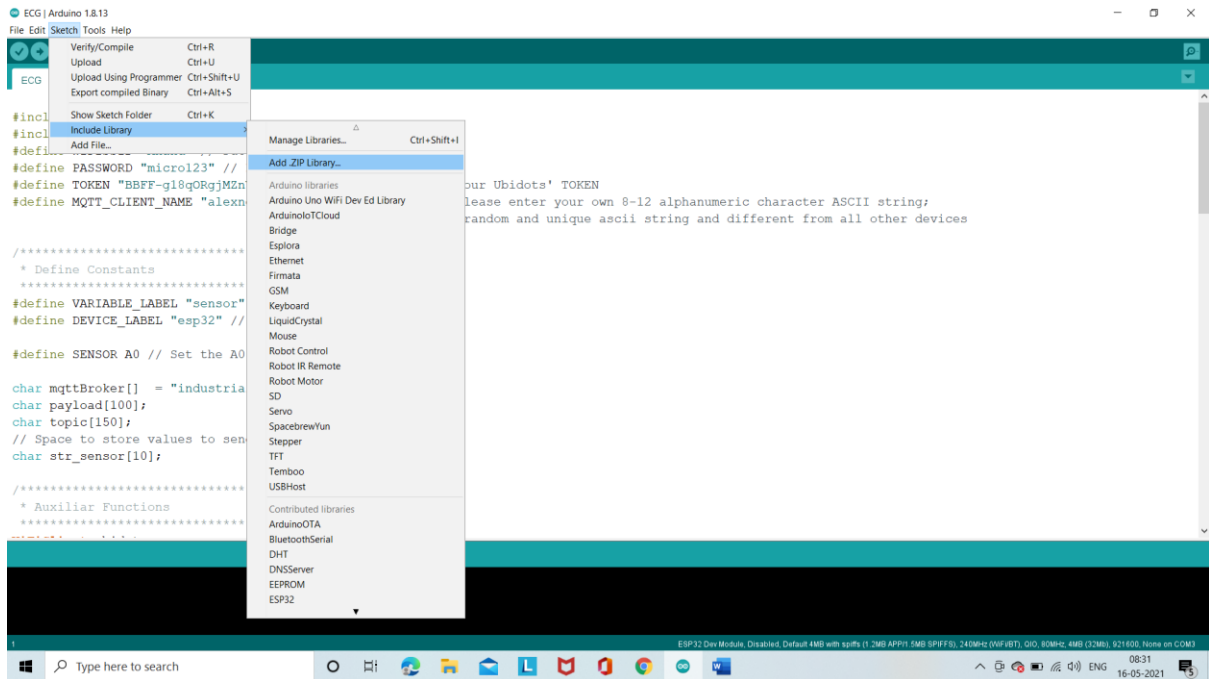
ECG SENSOR	ESP 32(NODE MCU)
GND	GND
3.3 V	3.3 V
OUTPUT	VP
LO-(LEAD OFF- LEFT ARM)	D4
LO+(LEAD OFF-RIGHT ARM)	D2

Package :

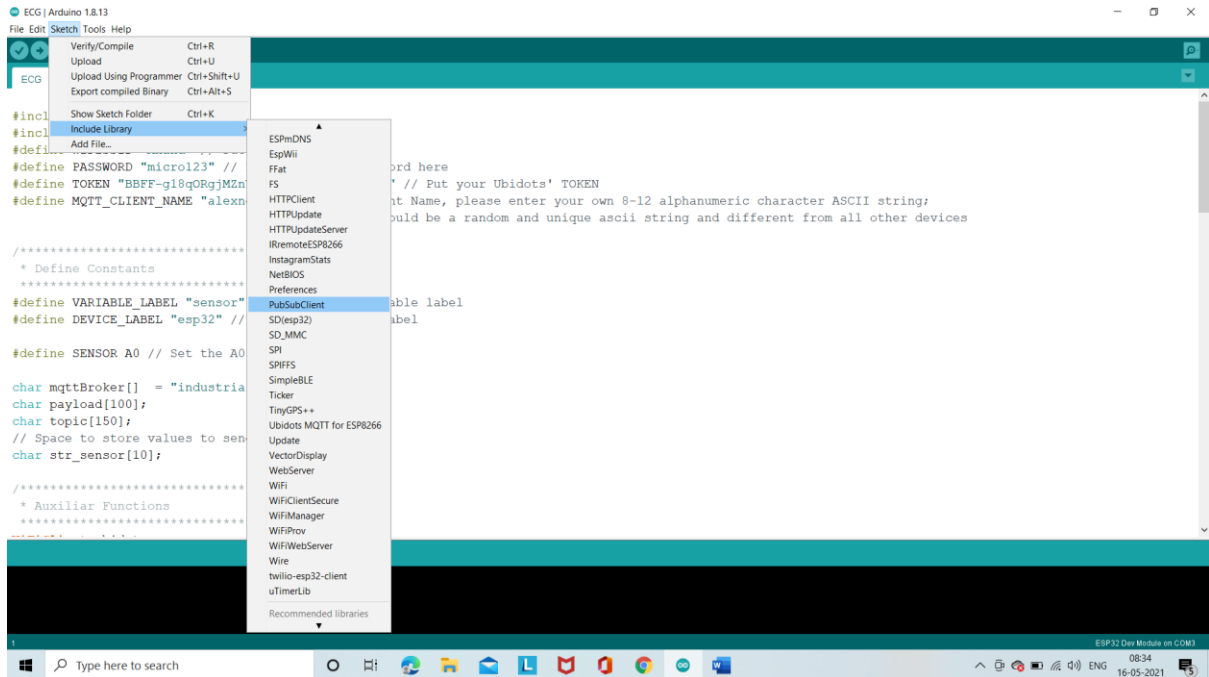
<https://github.com/knolleary/pubsubclient>- pubsubclient



Go to sketch:



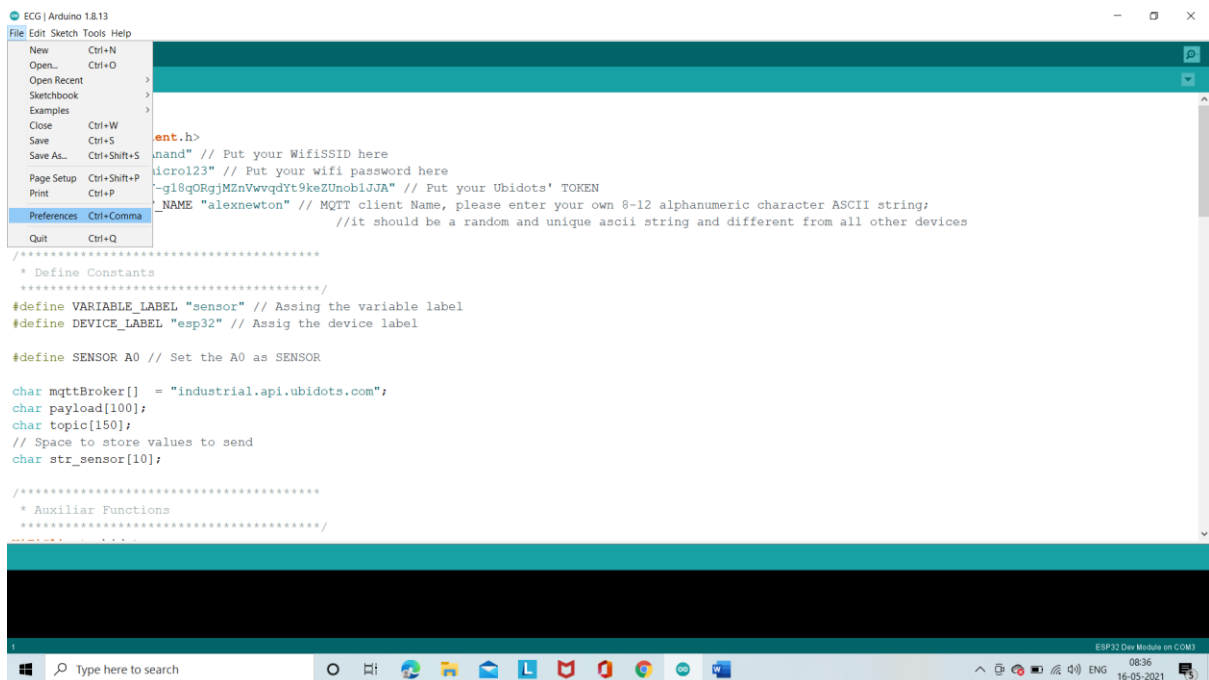
PACKAGE STORE THIS FOLDER:



PACKAGE ESP 32 :

<https://randomnerdtutorials.com/installing-the-esp32-board-in-arduino-ide-windows-instructions/>

GO TO FILE PREFERENCES :



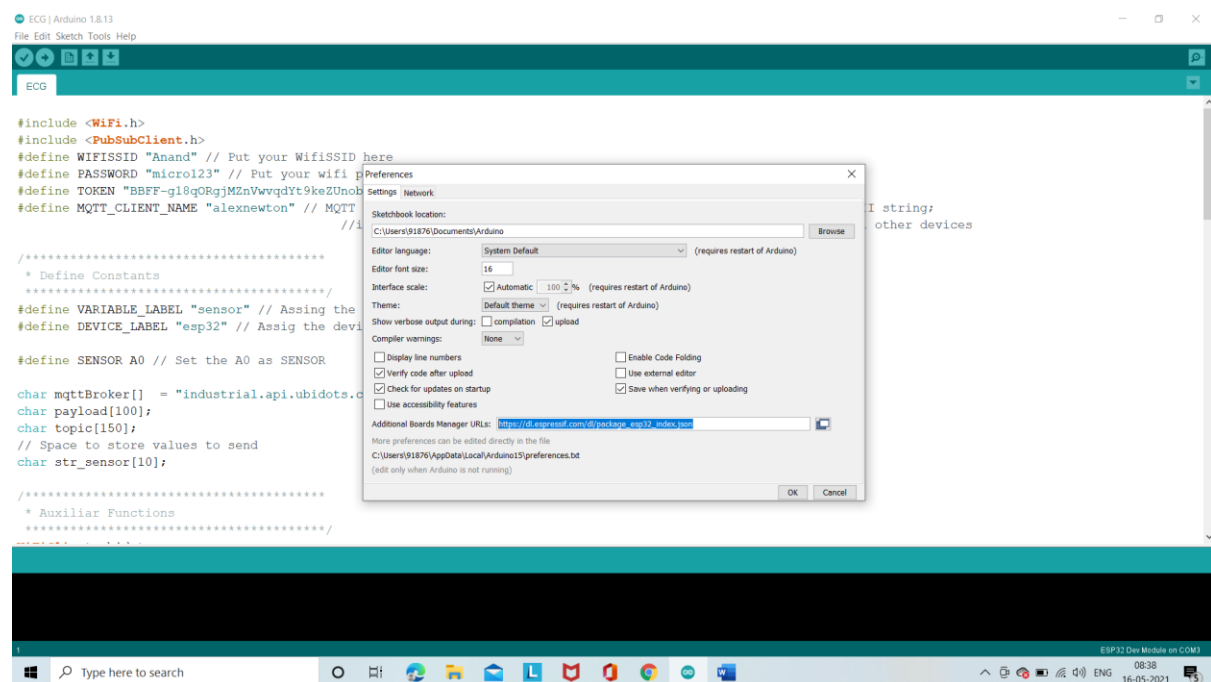
FILE :

1. https://dl.espressif.com/dl/package_esp32_index.json,
2. http://arduino.esp8266.com/stable/package_esp8266com_index.json

FIRST ONE COPY THIS FILE:

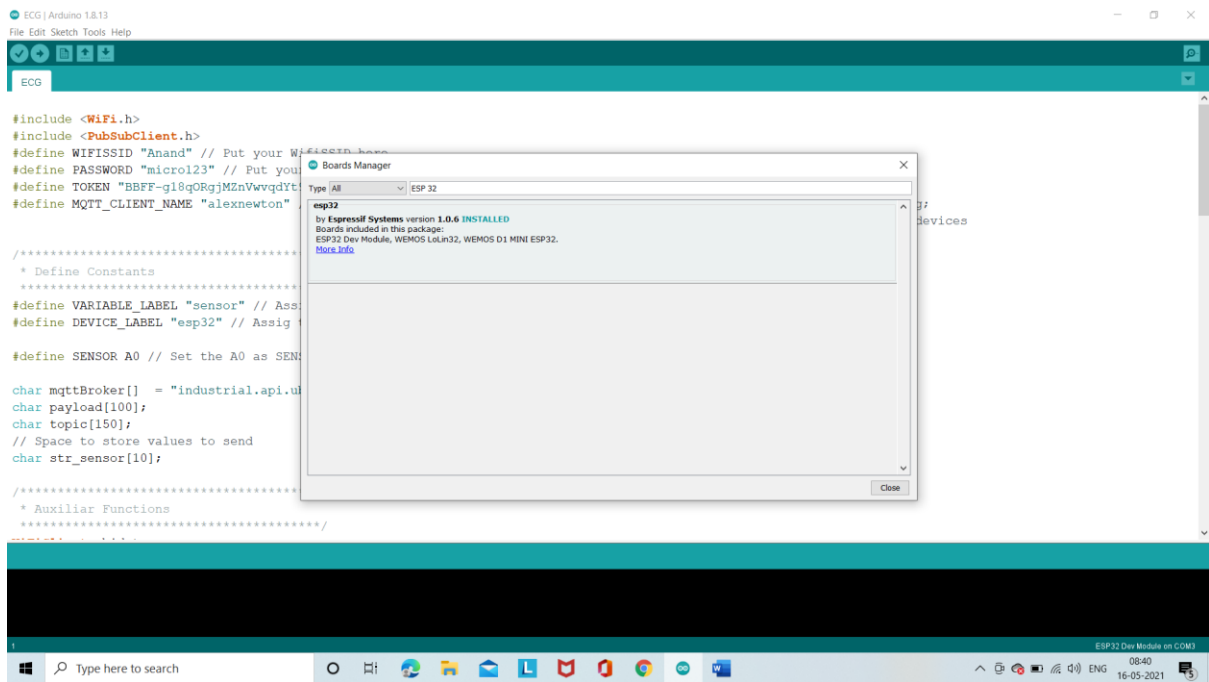
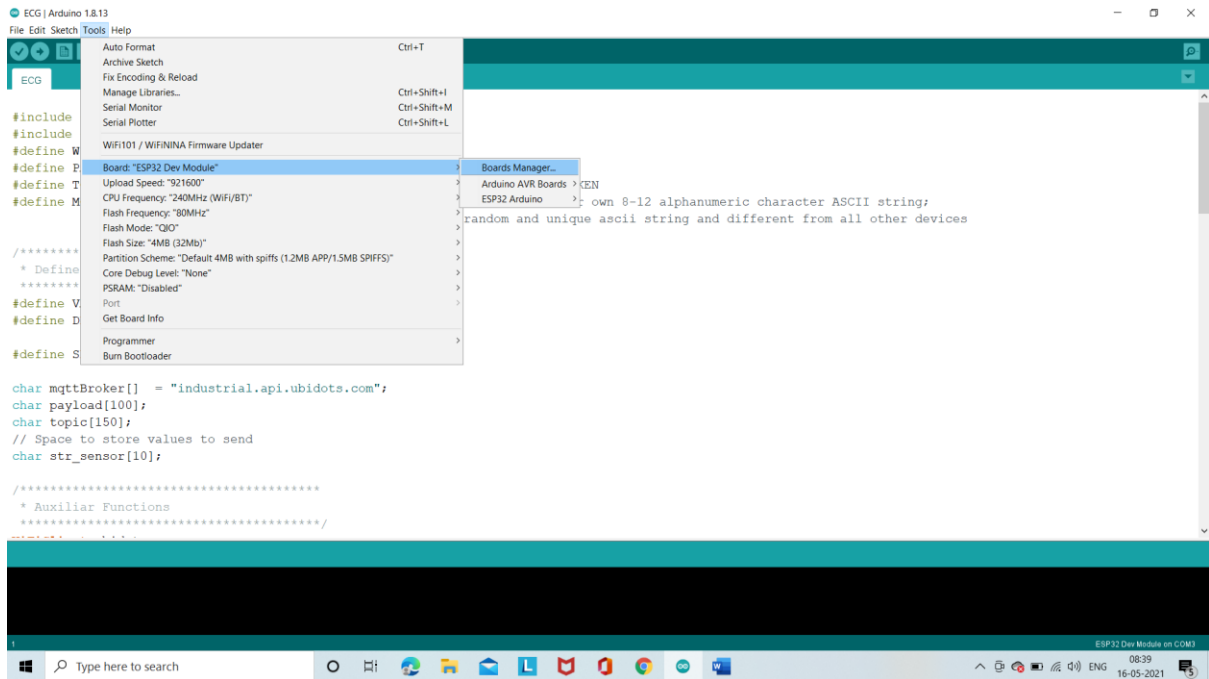
https://dl.espressif.com/dl/package_esp32_index.json

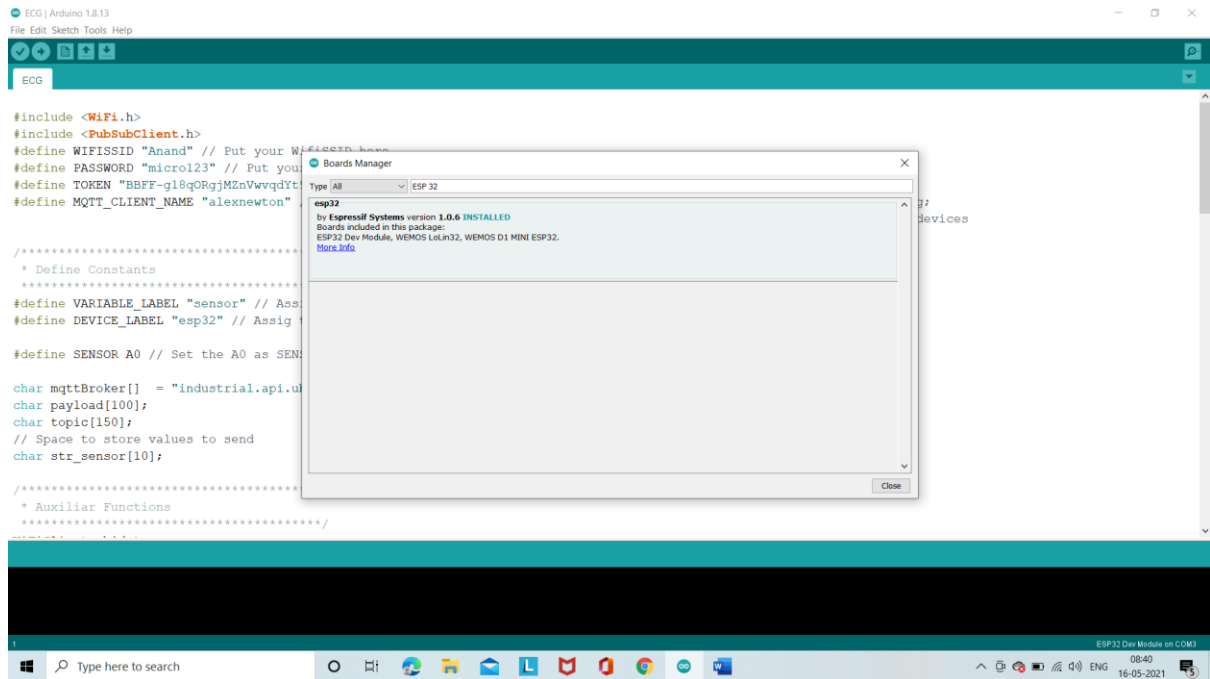
COPY THIS PREFERNCES FILE



CLICK OK.

GO TO TOOLS:

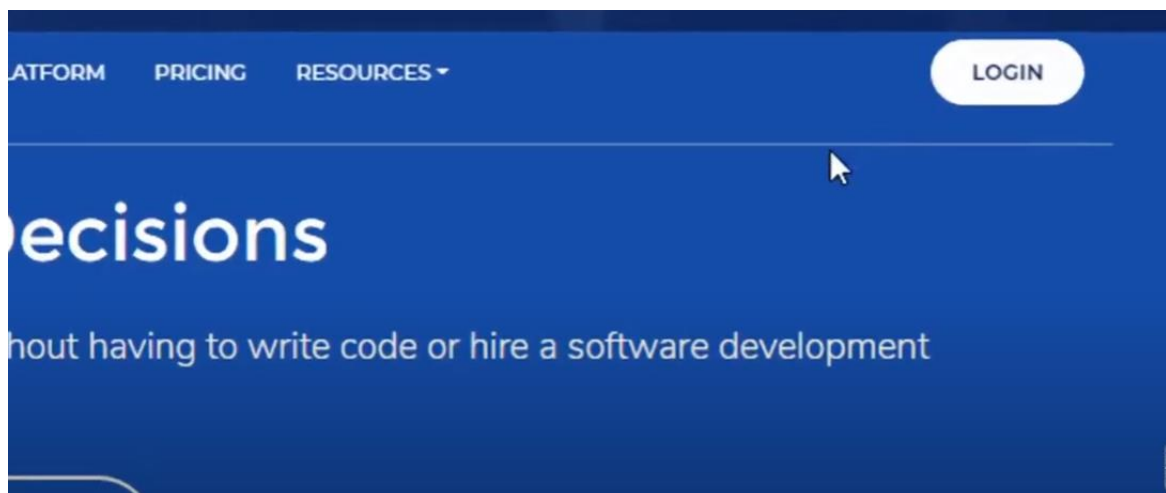


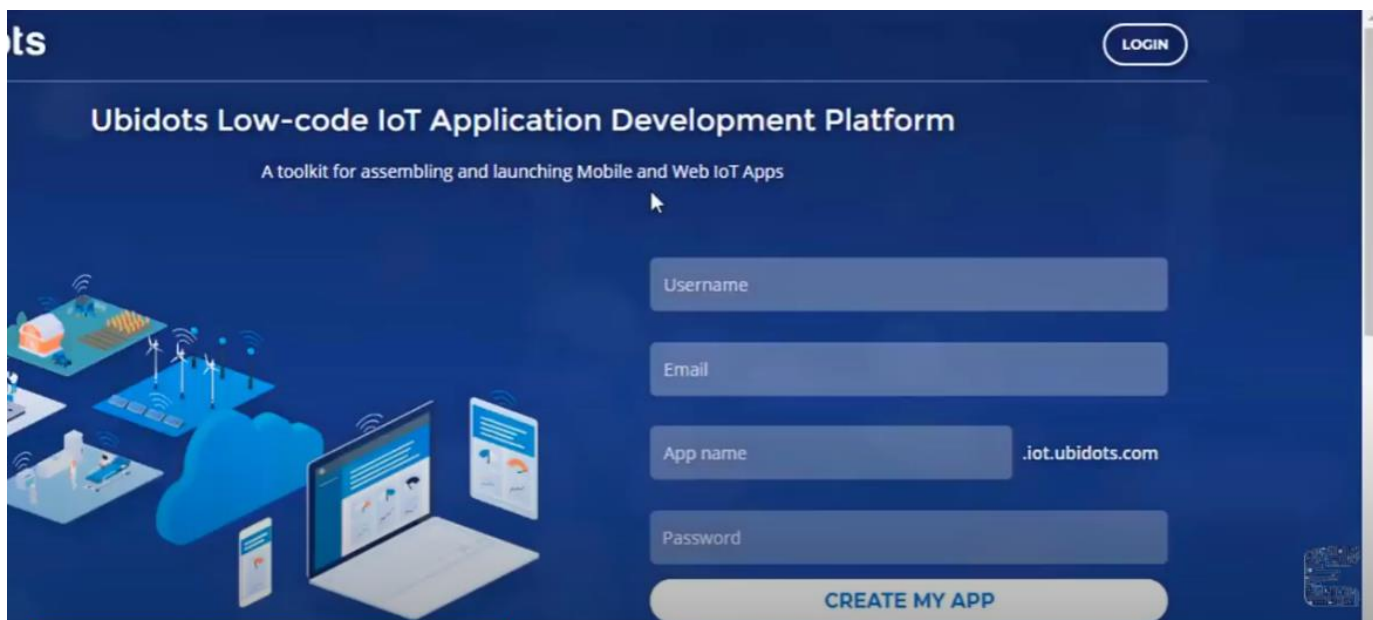
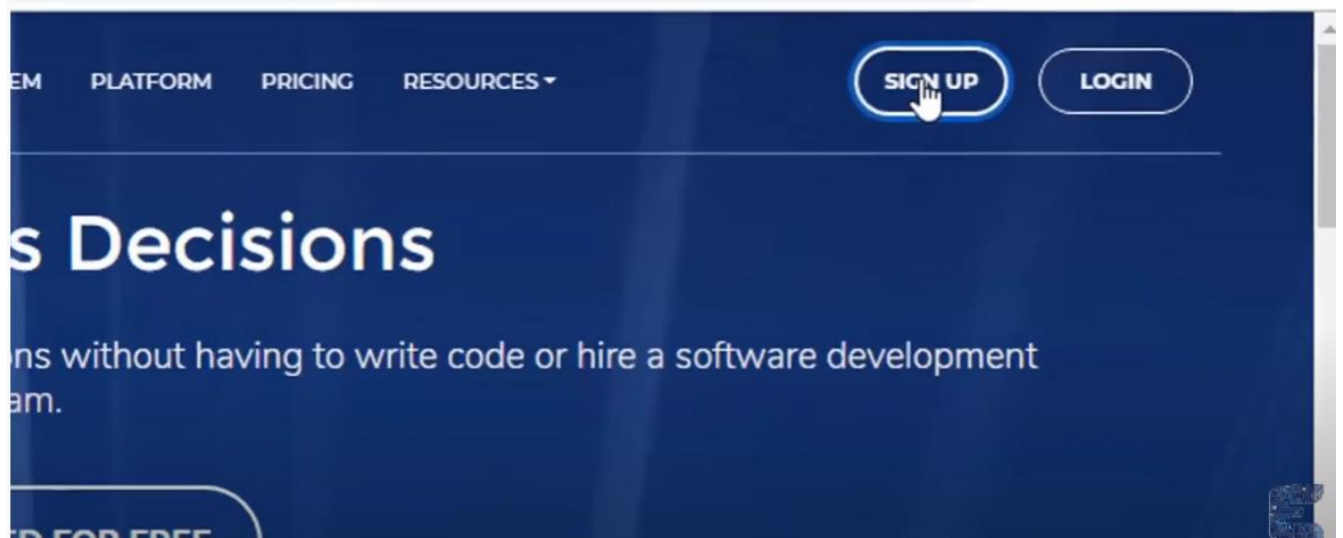


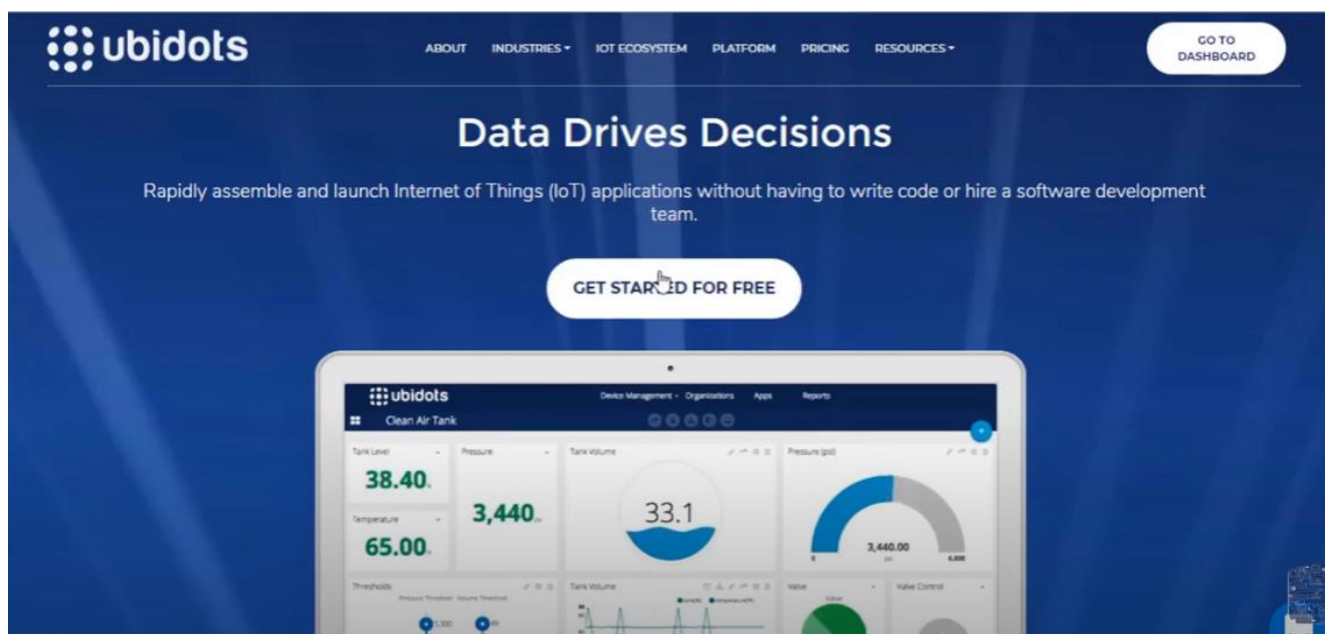
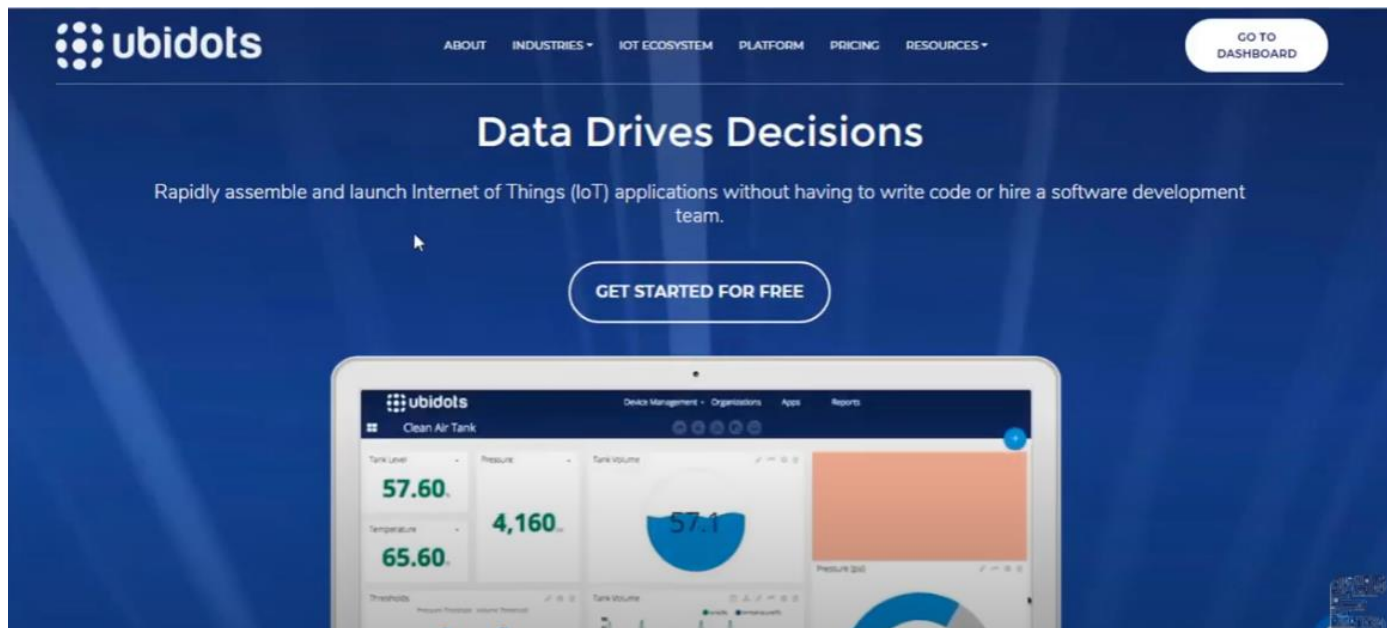
PACKAGE WIFI AUTOMATIC INSTALL ESP 32 .

UBIDOTS CLOUD:

<https://industrial.ubidots.com/>

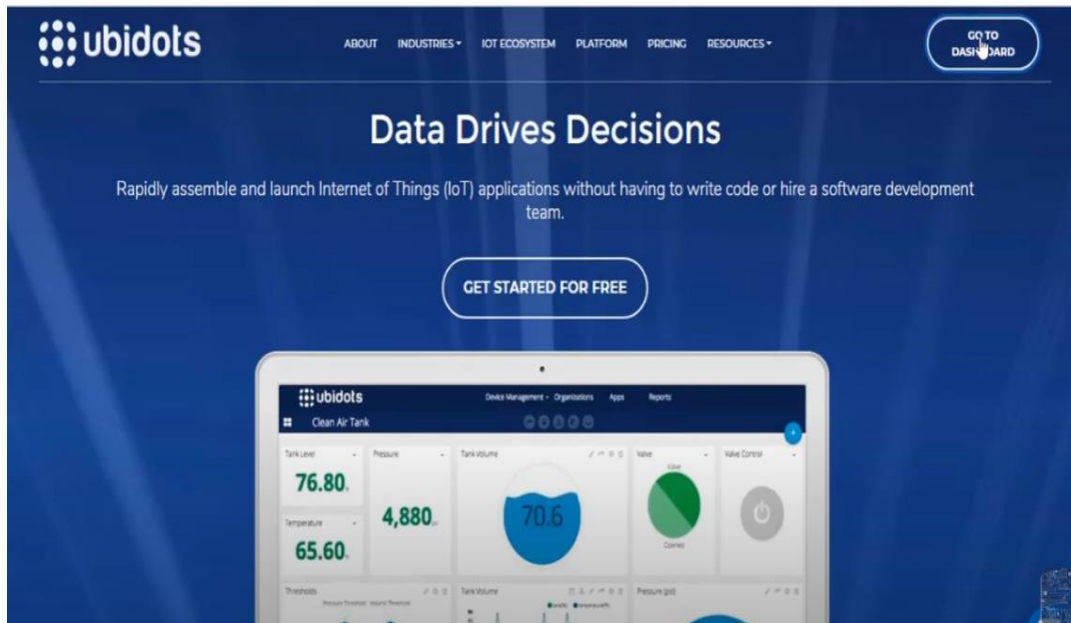




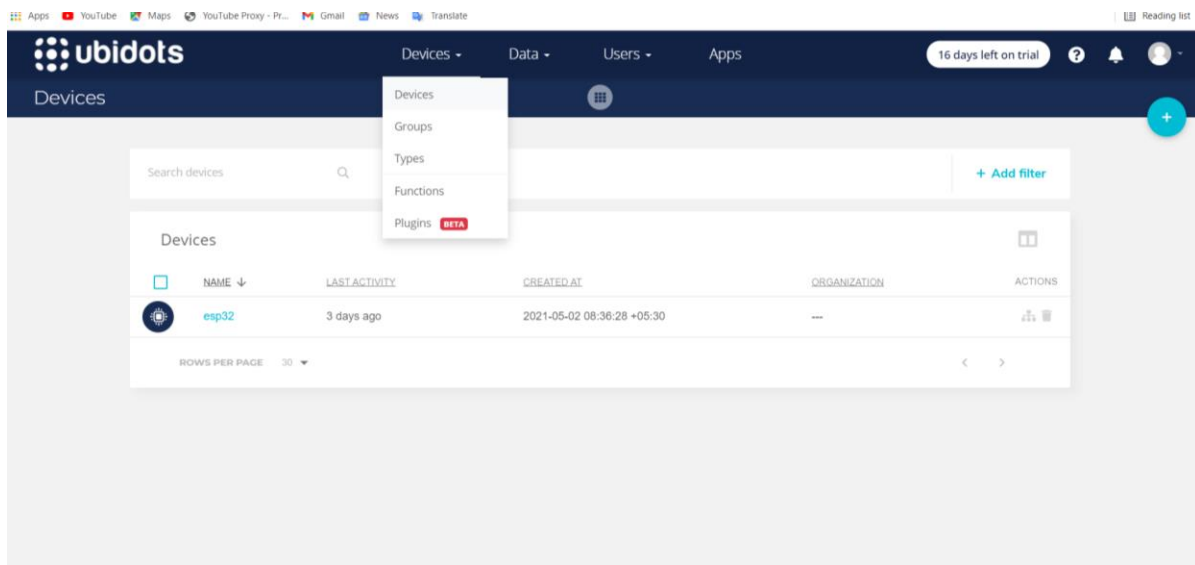


GO TO DASH BOARD:

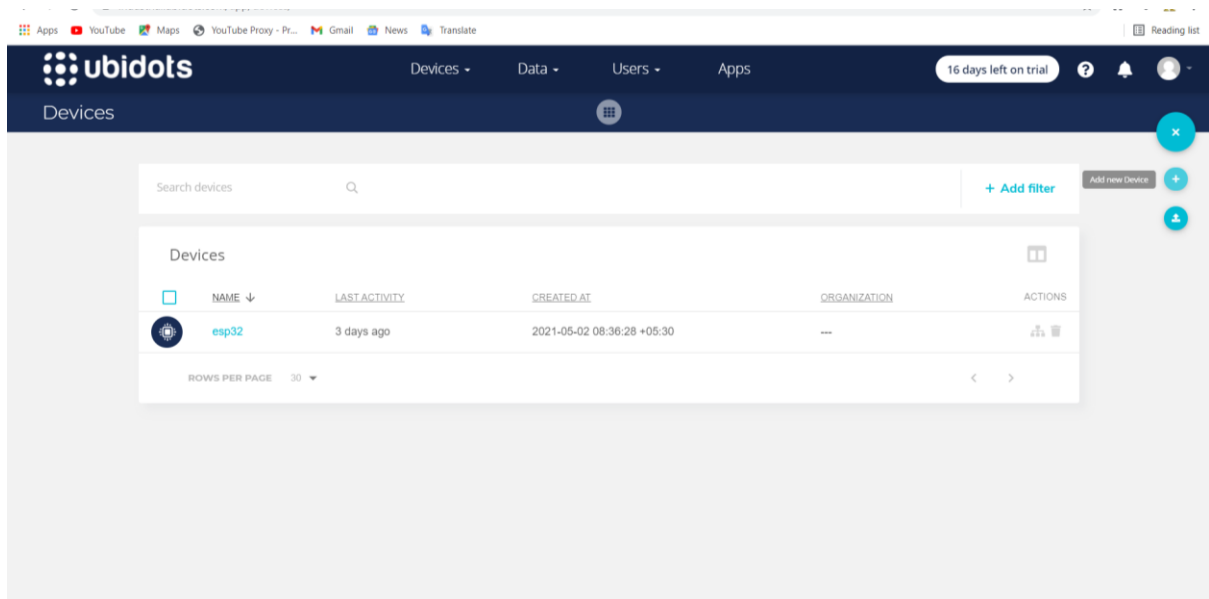
30 DAYS FREE TRIAL



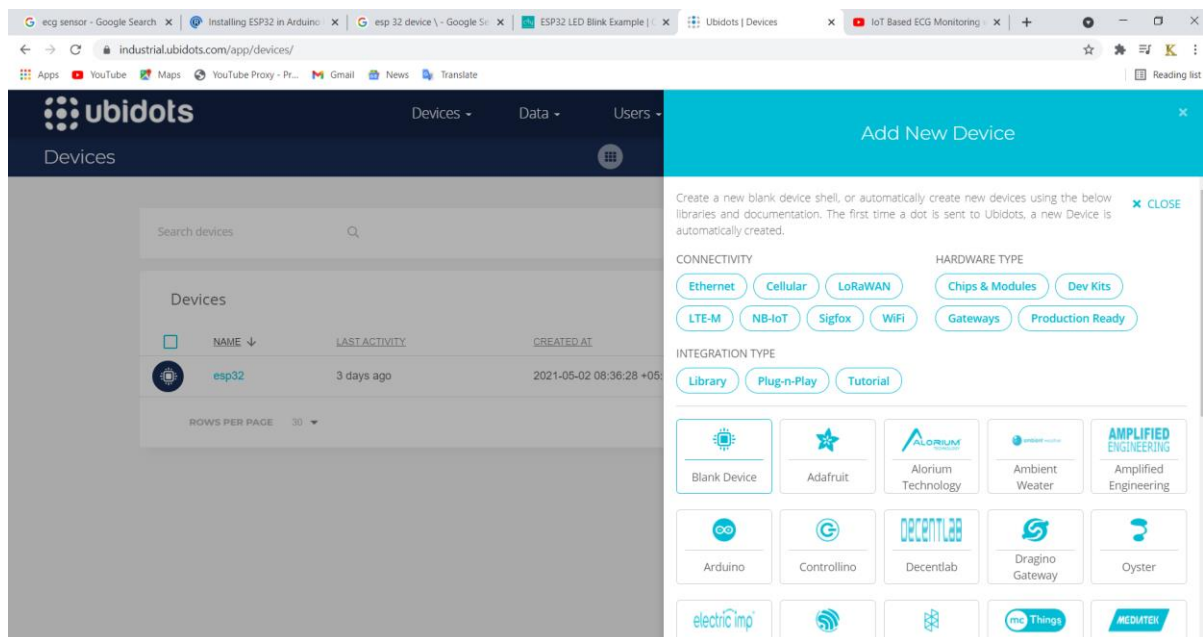
CLICK ON DEVICE :



CREATE DEVICE



BLACK DEVICE CLICK



Click on black device :


ubidots

Devices ▾ Data ▾ Users ▾

Devices

Search devices

Devices

	NAME ▾	LAST ACTIVITY	CREATED AT
	esp32	3 days ago	2021-05-02 08:36:28 +05:30

ROWS PER PAGE 30 ▾

Add New Device

BACK

Device name

simple

Device label

simple

ubidots

Devices ▾ Data ▾ Users ▾ Apps







16 days left on trial ?

Devices

Search devices

+ Add filter

Devices

	NAME ▾	LAST ACTIVITY	CREATED AT	ORGANIZATION	ACTIONS
	simple	No last activity	2021-05-16 09:25:14 +05:30	---	 
	esp32	3 days ago	2021-05-02 08:36:28 +05:30	---	 

ROWS PER PAGE 30 ▾

Click on simple:

Browser tabs: ecg sensor - Google Search, Installing ESP32 in Arduino, esp 32 device \ - Google S..., ESP32 LED Blink Example |, Ubidots | Devices, IoT Based ECG Monitoring

Address bar: industrialubidots.com/app/devices/

Navigation: Apps, YouTube, Maps, YouTube Proxy - Pr..., Gmail, News, Translate, Reading list

Ubidots Header: Devices, Data, Users, Apps, 16 days left on trial

Search devices

+ Add filter

Devices

NAME	LAST ACTIVITY	CREATED AT	ORGANIZATION	ACTIONS
simple	No last activity	2021-05-16 09:25:14 +05:30	---	
esp32	3 days ago	2021-05-02 08:36:28 +05:30	---	

ROWS PER PAGE 30

https://industrialubidots.com/app/devices/60a097a21d84727af16918f3

Windows Taskbar: Type here to search, 09:25 16-05-2021

Browser tabs: ecg sensor - Google Search, Installing ESP32 in Arduino, esp 32 device \ - Google S..., ESP32 LED Blink Example |, Ubidots | Devices, IoT Based ECG Monitoring

Address bar: industrialubidots.com/app/devices/60a097a21d84727af16918f3

Navigation: Apps, YouTube, Maps, YouTube Proxy - Pr..., Gmail, News, Translate, Reading list

Ubidots Header: Devices, Data, Users, Apps, 16 days left on trial

← Devices

SET LOCATION

simple

Description
Change description

API Label
simple

ID
60a097a21d84727af16918f3

Token

Tags
Add new tag

Last activity

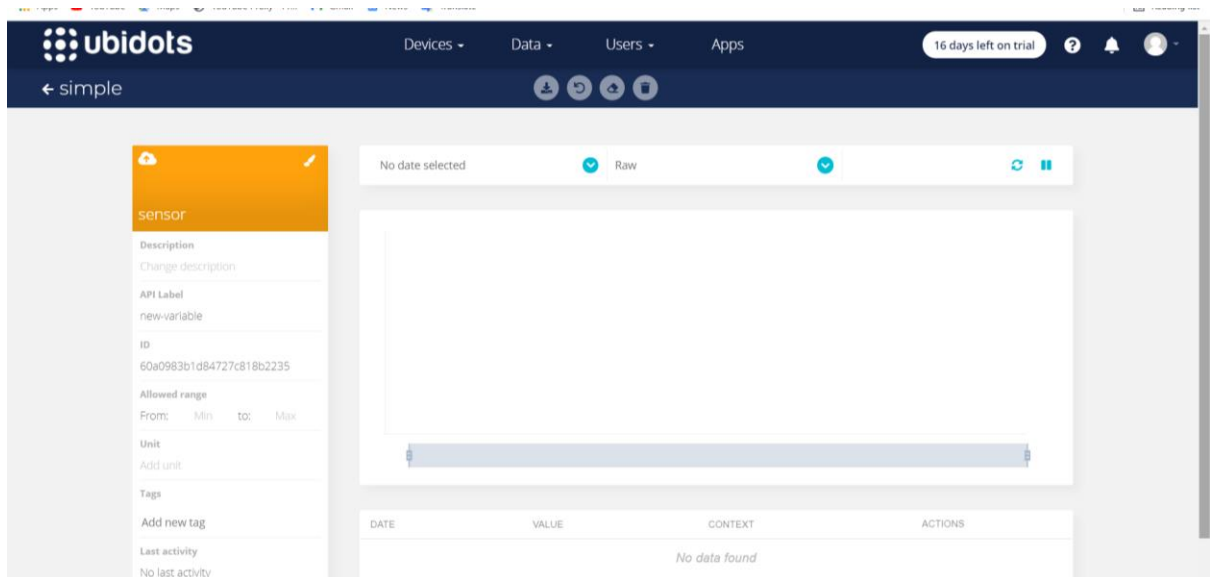
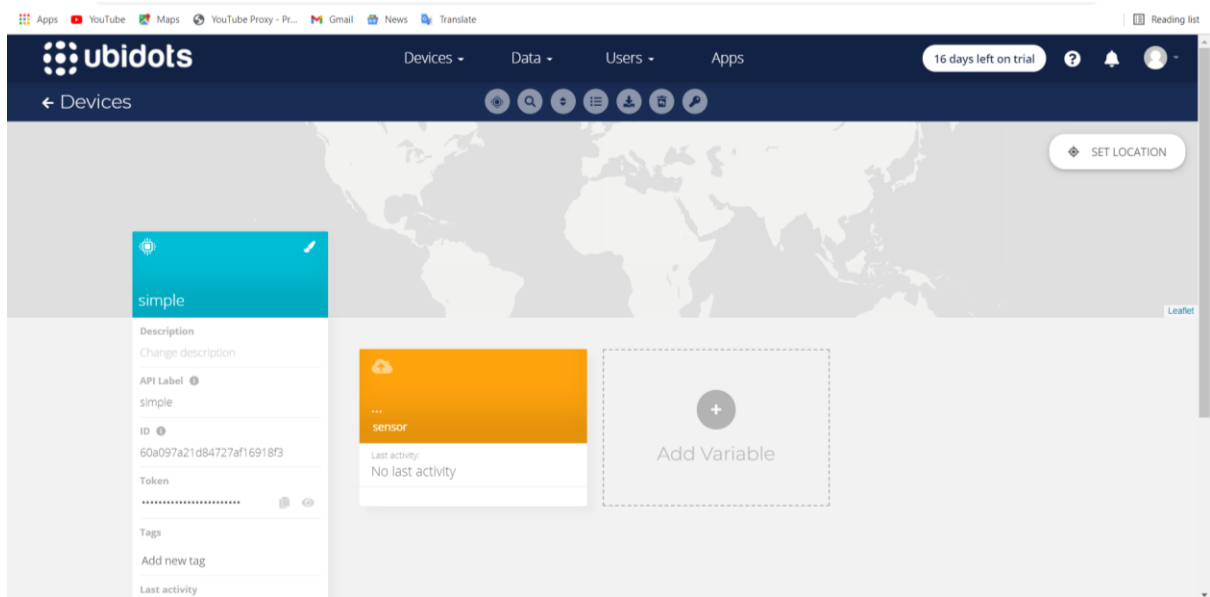
Add Variable

Windows Taskbar: Type here to search, 09:26 16-05-2021

ADD VARIABLE NEW RAW

The screenshot shows the Ubidots web interface for a device named 'simple'. The left sidebar contains fields for Description, API Label, ID, Token, Tags, and Last activity. The main area features a large 'Add Variable' button with a plus icon. The top navigation bar includes links for Devices, Data, Users, and Apps, along with a trial status indicator '16 days left on trial'.

This screenshot shows the same Ubidots interface as the first image, but with the 'Add Variable' button expanded to show two options: 'Raw' (indicated by a bar chart icon) and 'Synthetic' (indicated by a sigma symbol icon). The rest of the interface, including the sidebar and top navigation, remains the same.

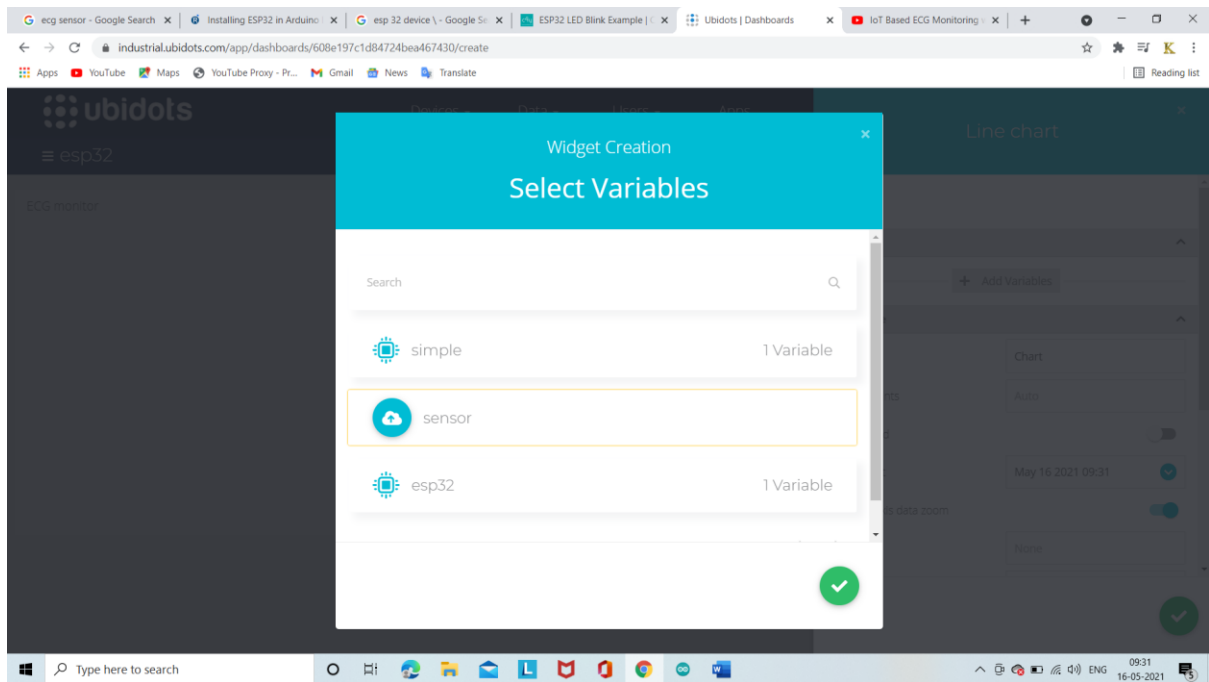


CLICK DATA DASHBOARD :

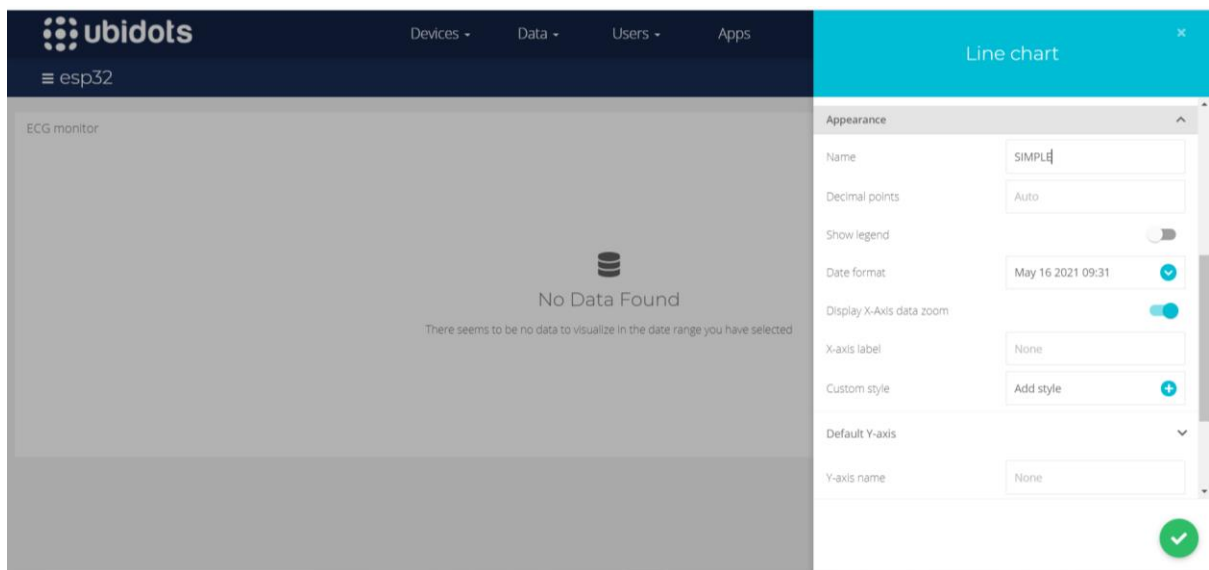
The top screenshot displays the Ubidots interface for configuring a 'sensor'. The left sidebar contains fields for Description, API Label (new-variable), ID (60a0983b1d84727c818b2235), Allowed range, Unit, and Tags. The main area shows a 'No date selected' status and a 'Raw' data view. A dropdown menu is open over the 'Data' tab, showing options for Dashboards, Events, and Analytics.

The bottom screenshot shows a dashboard titled 'ECG monitor' for an 'esp32' device. The main area displays 'No Data Found' with the message: 'There seems to be no data to visualize in the date range you have selected'. On the right, there is a grid of widget options including Bar chart, Battery, Clock, Devices Table, Double Axis, Gauge, HTML Canvas, Histogram, Image, Indicator, Line chart, Manual input, Map, Metric, and Pie.

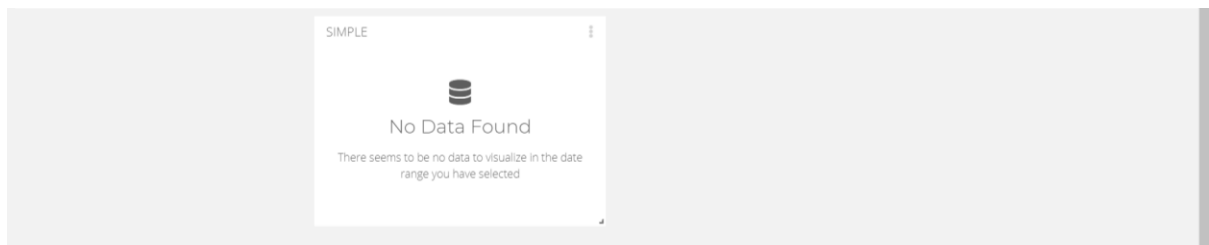
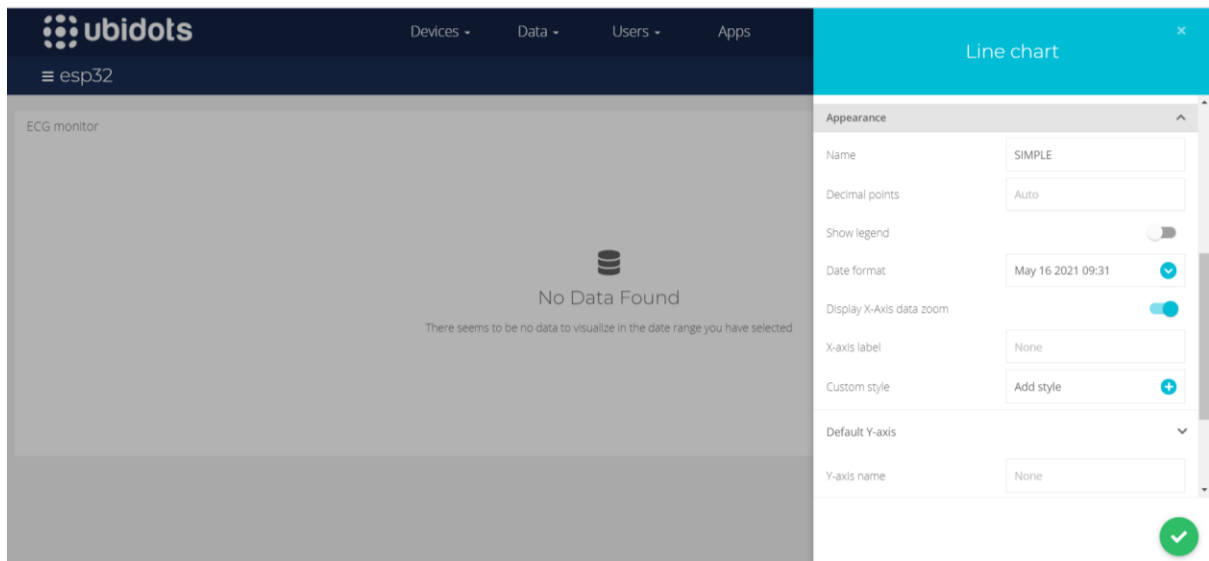
ADD VARIABLE :



CHANGE THE NAME:



CLICK OK



```
#include <WiFi.h>
```

```
#include <PubSubClient.h>
```

```
#define WIFISSID "Anand" // Put your WifiSSID here
```

```
#define PASSWORD "micro123" // Put your wifi password here
```

```
#define TOKEN "BBFF-g18qORgjMZnVwvqdYt9keZUnob1JJA" // Put your Ubidots' TOKEN
```

```
#define MQTT_CLIENT_NAME "karthi" // MQTT client Name, please enter your own 8-12  
alphanumeric character ASCII string;
```

```
                //it should be a random and unique ascii string and different from all other  
devices
```

```
/******
```

```
* Define Constants
```

```
*****/
```

```
#define VARIABLE_LABEL "sensor" // Assing the variable label
```

```
#define DEVICE_LABEL "esp32" // Assig the device label
```

```

#define SENSOR A0 // Set the A0 as SENSOR

char mqttBroker[] = "industrial.api.ubidots.com";
char payload[100];
char topic[150];
// Space to store values to send
char str_sensor[10];

/*****

* Auxiliar Functions

*****/

WiFiClient ubidots;
PubSubClient client(ubidots);

void callback(char* topic, byte* payload, unsigned int length) {
    char p[length + 1];
    memcpy(p, payload, length);
    p[length] = NULL;
    Serial.write(payload, length);
    Serial.println(topic);
}

void reconnect() {
    // Loop until we're reconnected
    while (!client.connected()) {
        Serial.println("Attempting MQTT connection...");

        // Attemp to connect
        if (client.connect(MQTT_CLIENT_NAME, TOKEN, "")) {
            Serial.println("Connected");

```

```

    } else {
        Serial.print("Failed, rc=");
        Serial.print(client.state());
        Serial.println(" try again in 2 seconds");
        // Wait 2 seconds before retrying
        delay(2000);
    }
}

}

}

/*****
* Main Functions
*****/

void setup() {
    Serial.begin(115200);
    WiFi.begin(WIFISSID, PASSWORD);
    // Assign the pin as INPUT
    pinMode(SENSOR, INPUT);

    Serial.println();
    Serial.print("Waiting for WiFi...");

    while (WiFi.status() != WL_CONNECTED) {
        Serial.print(".");
        delay(500);
    }

    Serial.println("");
    Serial.println("WiFi Connected");
    Serial.println("IP address: ");
    Serial.println(WiFi.localIP());

```

```

client.setServer(mqttBroker, 1883);

client.setCallback(callback);
}

void loop() {
    if (!client.connected()) {
        reconnect();
    }

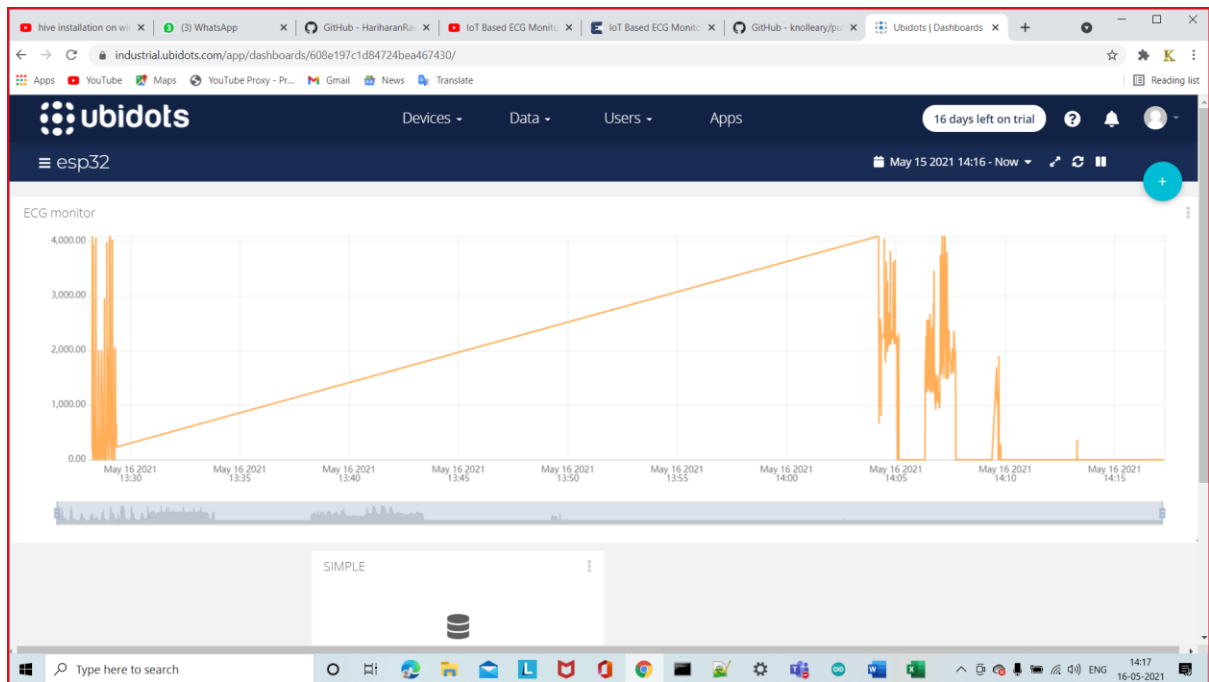
    sprintf(topic, "%s%s", "/v1.6/devices/", DEVICE_LABEL);
    sprintf(payload, "%s", ""); // Cleans the payload
    sprintf(payload, "{\"%s\":", VARIABLE_LABEL); // Adds the variable label

    float sensor = analogRead(SENSOR);

    /* 4 is minimum width, 2 is precision; float value is copied onto str_sensor*/
    dtostrf(sensor, 4, 2, str_sensor);

    sprintf(payload, "%s {\"value\": %s}}", payload, str_sensor); // Adds the value
    Serial.println("Publishing data to Ubidots Cloud");
    client.publish(topic, payload);
    client.loop();
    delay(500);
}

```



Desktop x delete file x How to fi x Download x New Tab x Download x PubSubC x IoT Base x IoT Base x (2) What x Ubidots x

industrialubidots.com/app/devices/608e17341d847241e085481a/608e17691d847241e085481b

Apps YouTube Maps YouTube Proxy - Pr... Gmail News Translate Reading list

Unit
Add unit
Tags
Add new tag
Last activity
In a few seconds

DATE	VALUE	CONTEXT	ACTIONS
New data available			
2021-05-20 14:42:28 +05:30	3687.00	()	
2021-05-20 14:42:28 +05:30	4095.00	()	
2021-05-20 14:42:27 +05:30	4095.00	()	
2021-05-20 14:42:27 +05:30	4095.00	()	
2021-05-20 14:42:26 +05:30	4095.00	()	
2021-05-20 14:42:26 +05:30	4095.00	()	
2021-05-20 14:42:25 +05:30	4095.00	()	
2021-05-20 14:42:25 +05:30	4095.00	()	
2021-05-20 14:42:24 +05:30	4095.00	()	
2021-05-20 14:42:24 +05:30	2381.00	()	

ROWS PER PAGE 10

Type here to search

