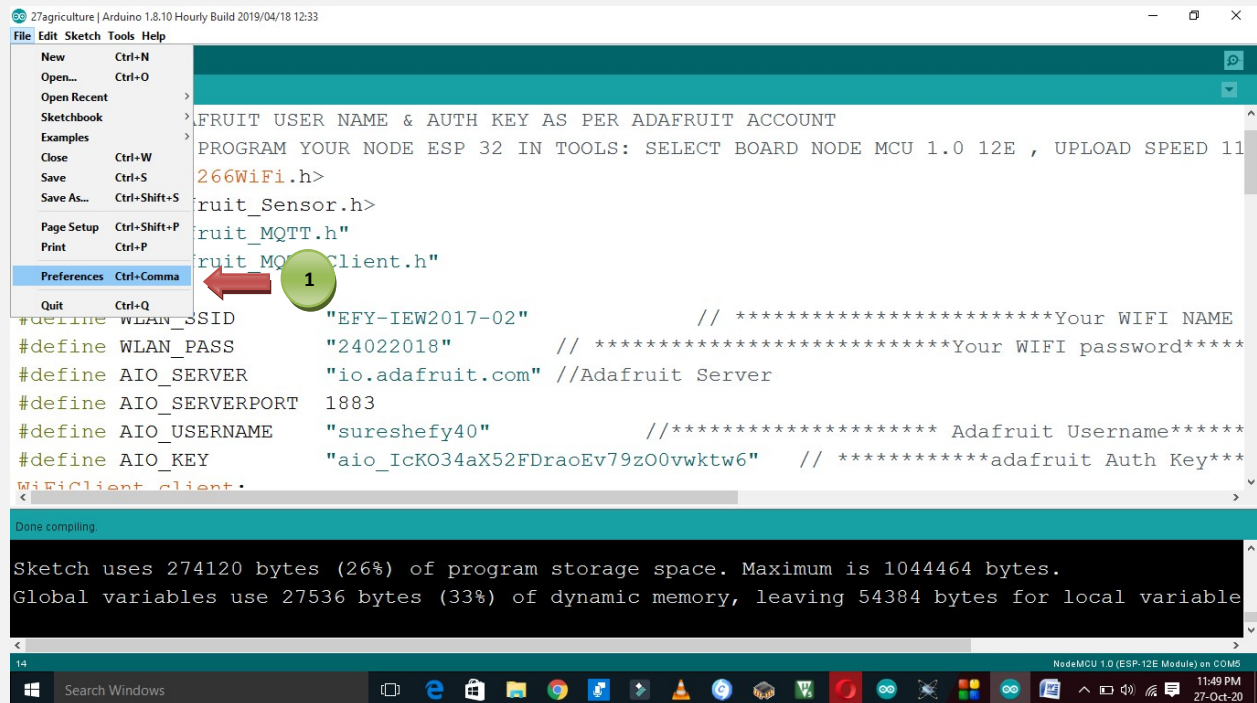
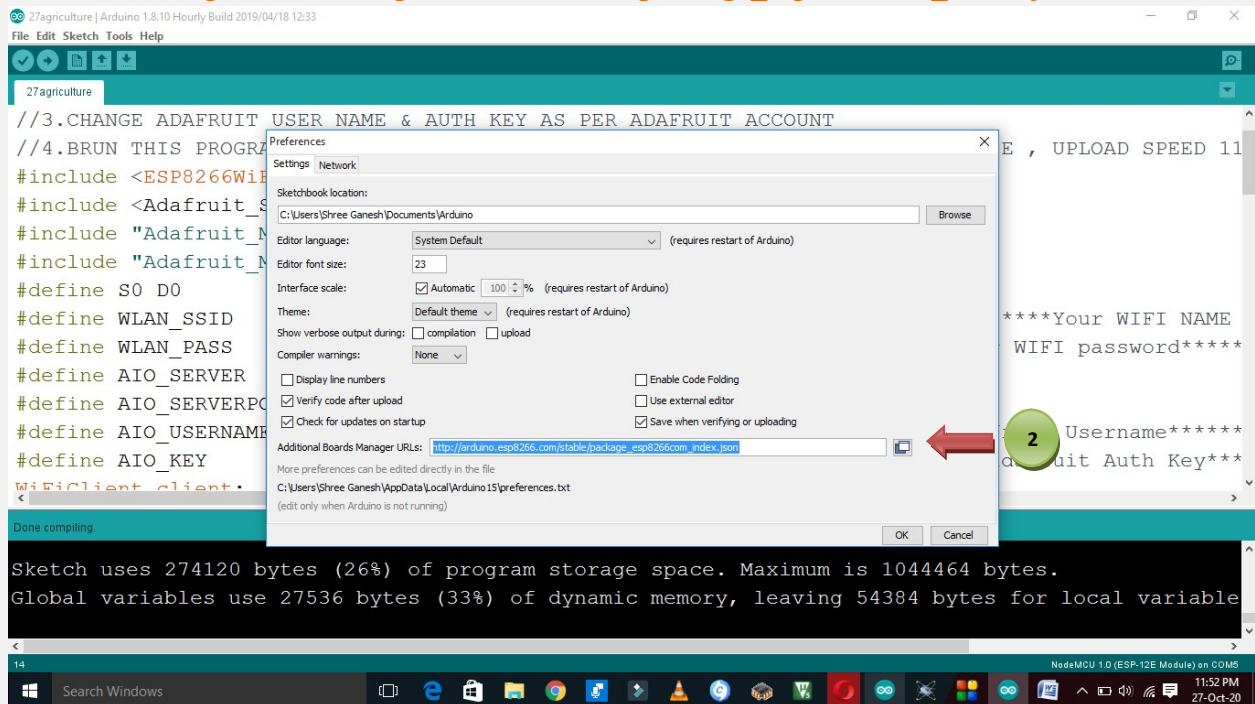


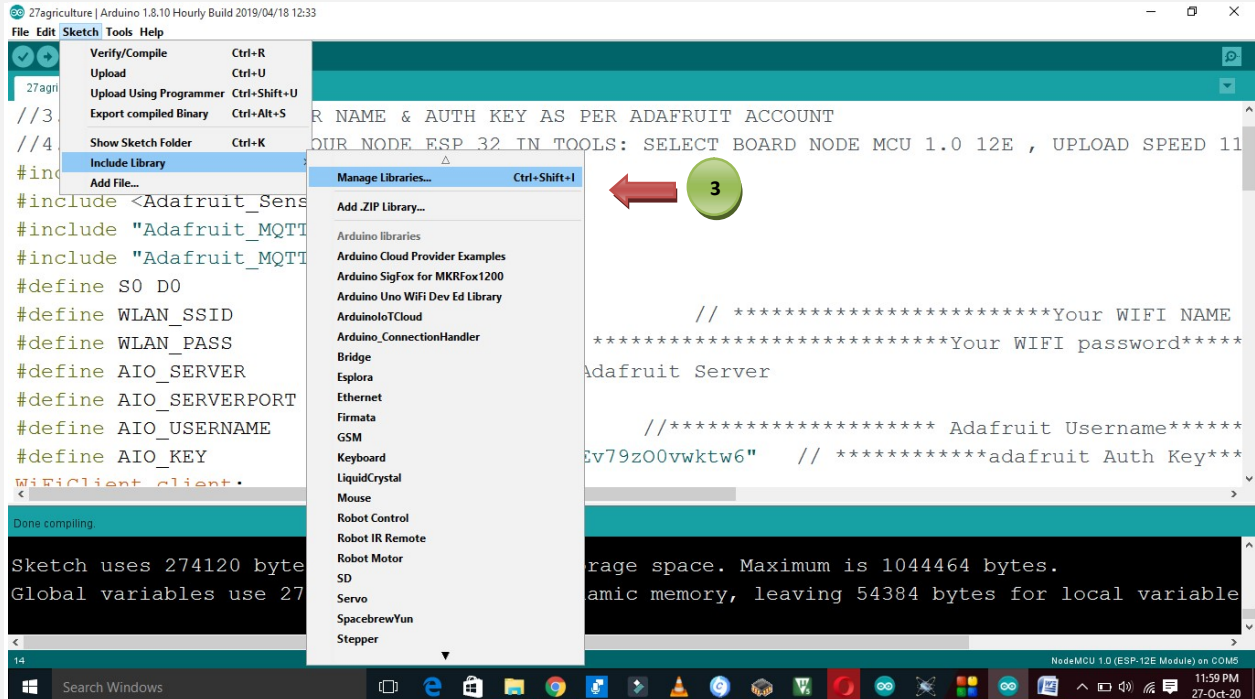
Step 1: Go in **file tab/button on left top in toolbar and move for **preferences** .**



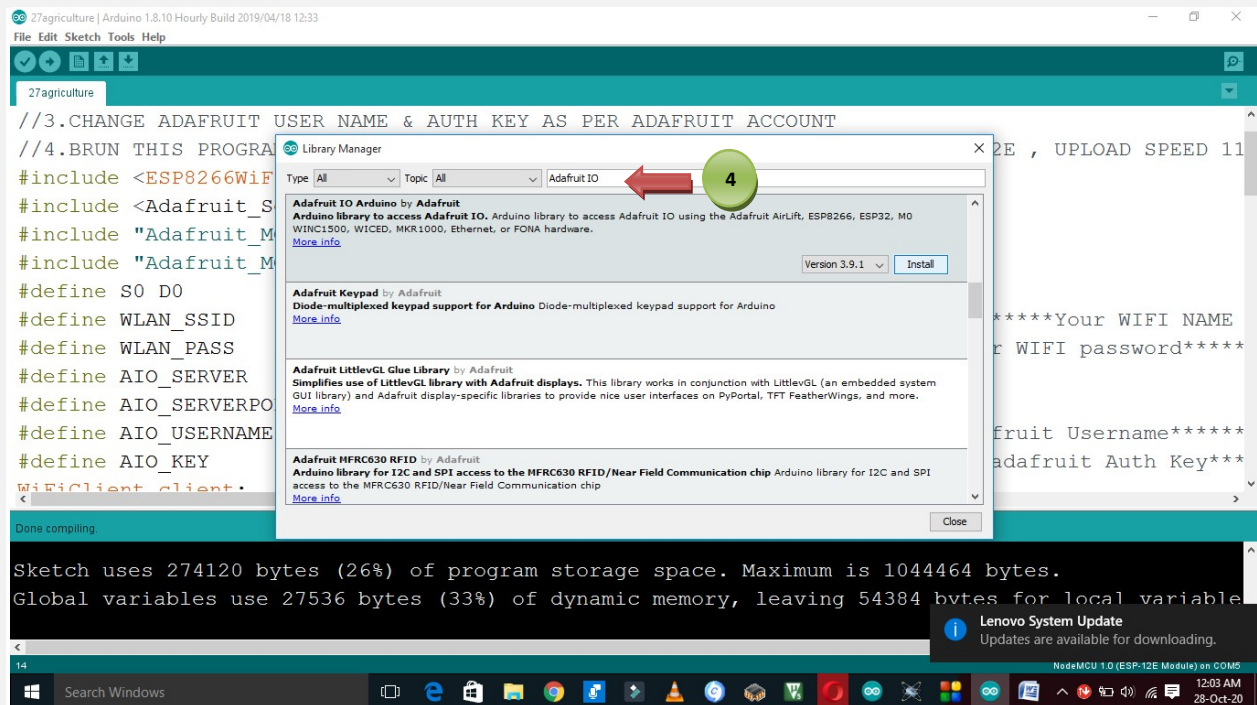
Step 2: add link in Additional board manager URLs: http://arduino.esp8266.com/stable/package_esp8266com_index.json



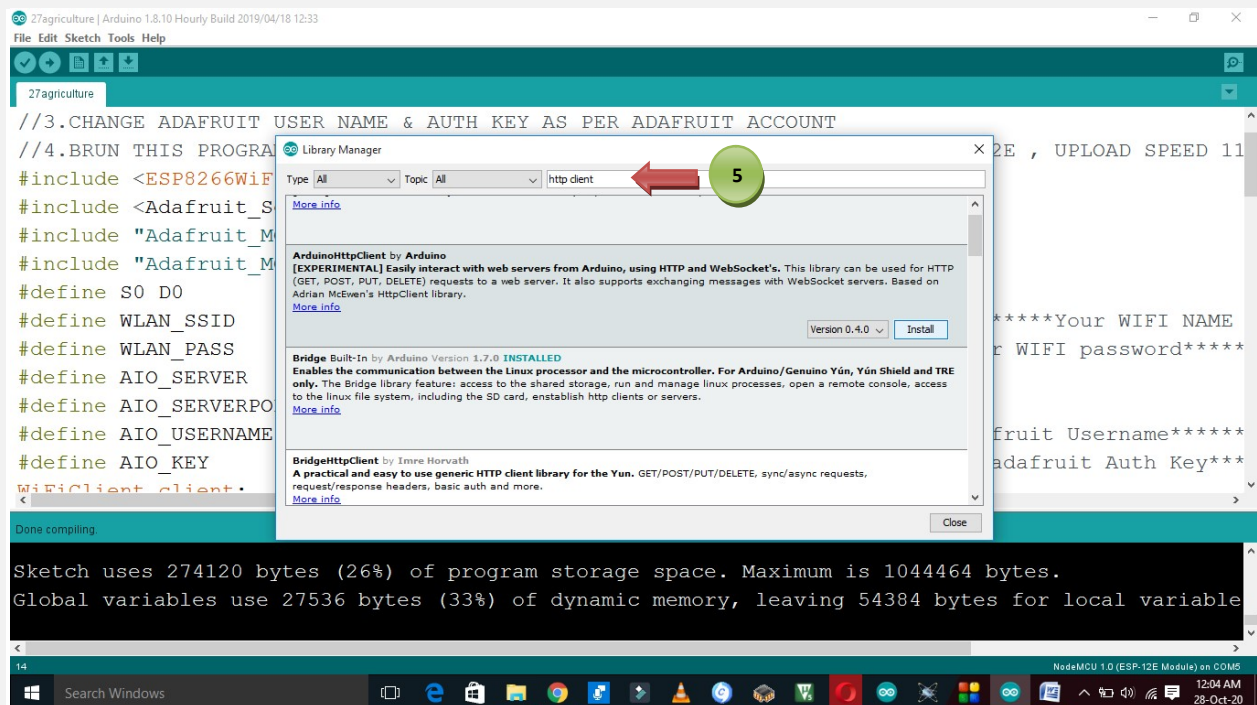
Step 3.: Get and Install the three nos. required Libraries used in prog for Node MCU8266 ESP 32 uc.



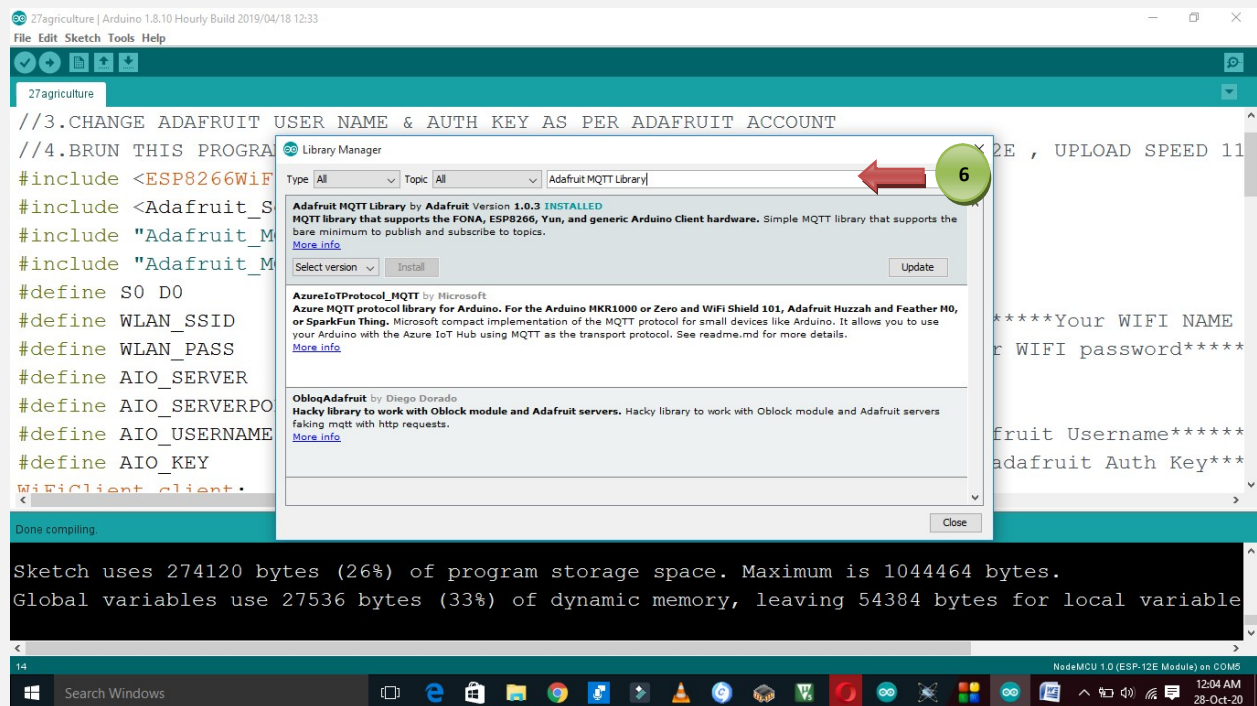
Step 4.: The first library that we need to get is the Adafruit IO library, which can be found by typing “Adafruit IO” into the library managers search bar. Once found, click the library in the list to install it.



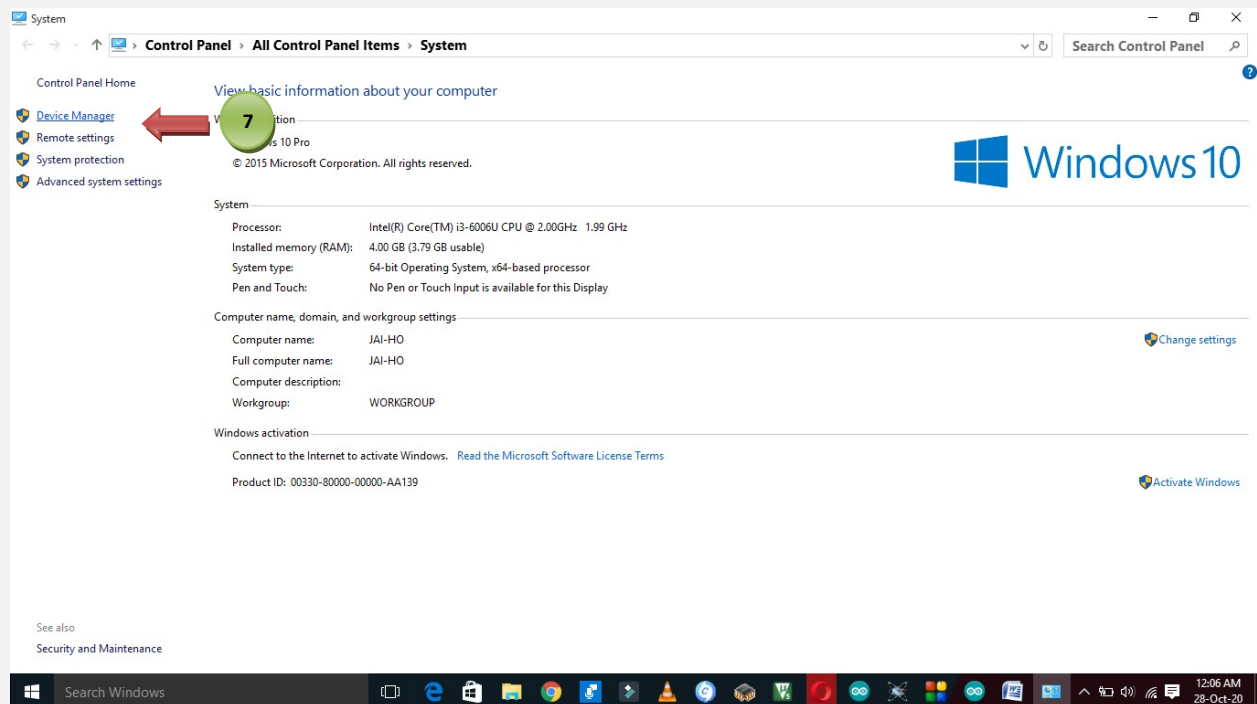
Step 5.: The second library we need to get is the HTTP Client library, which can be found by searching “http client”.



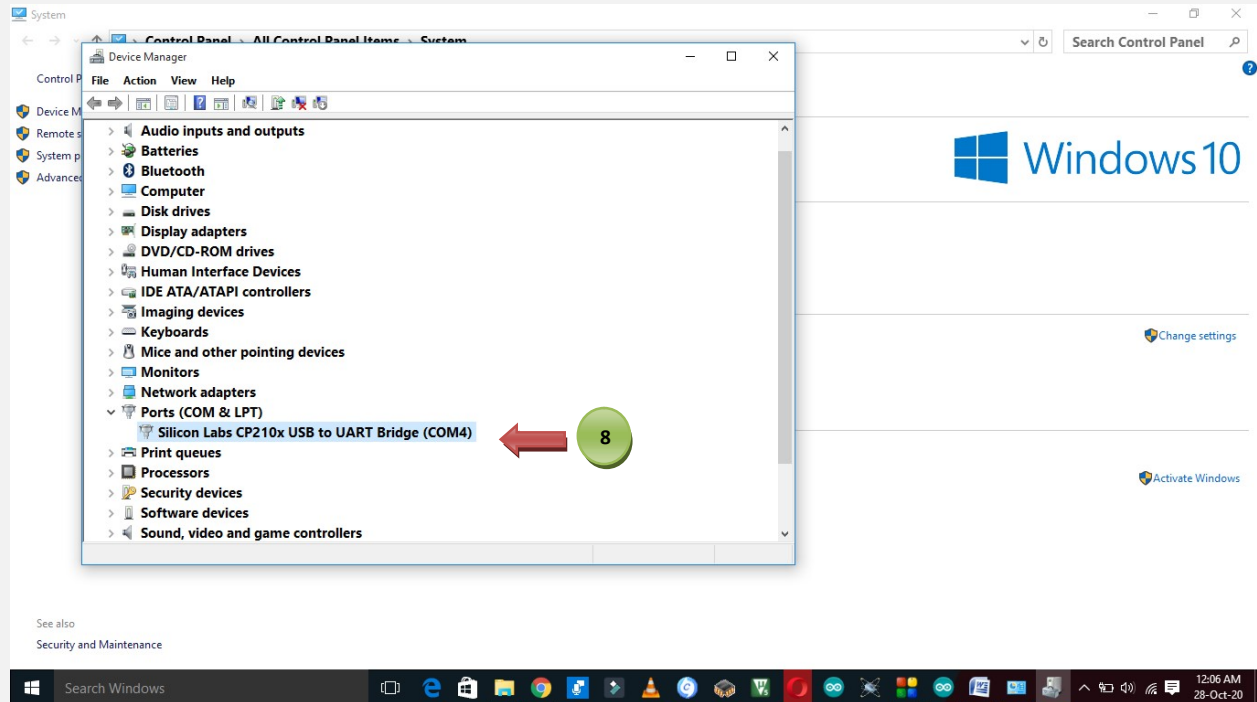
Step 6: The last library we need to get is the Adafruit MQTT library, which can be found by searching “Adafruit MQTT Library”.



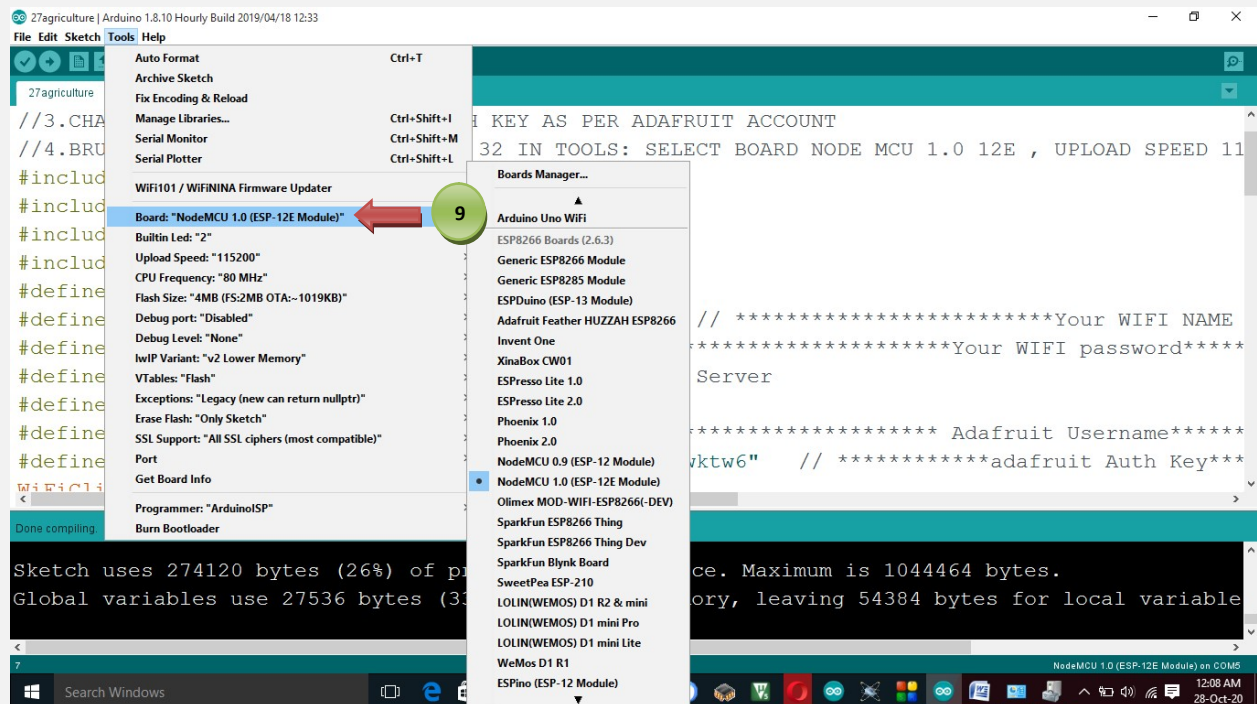
Step 7: Add Board: Go in device Manager ->



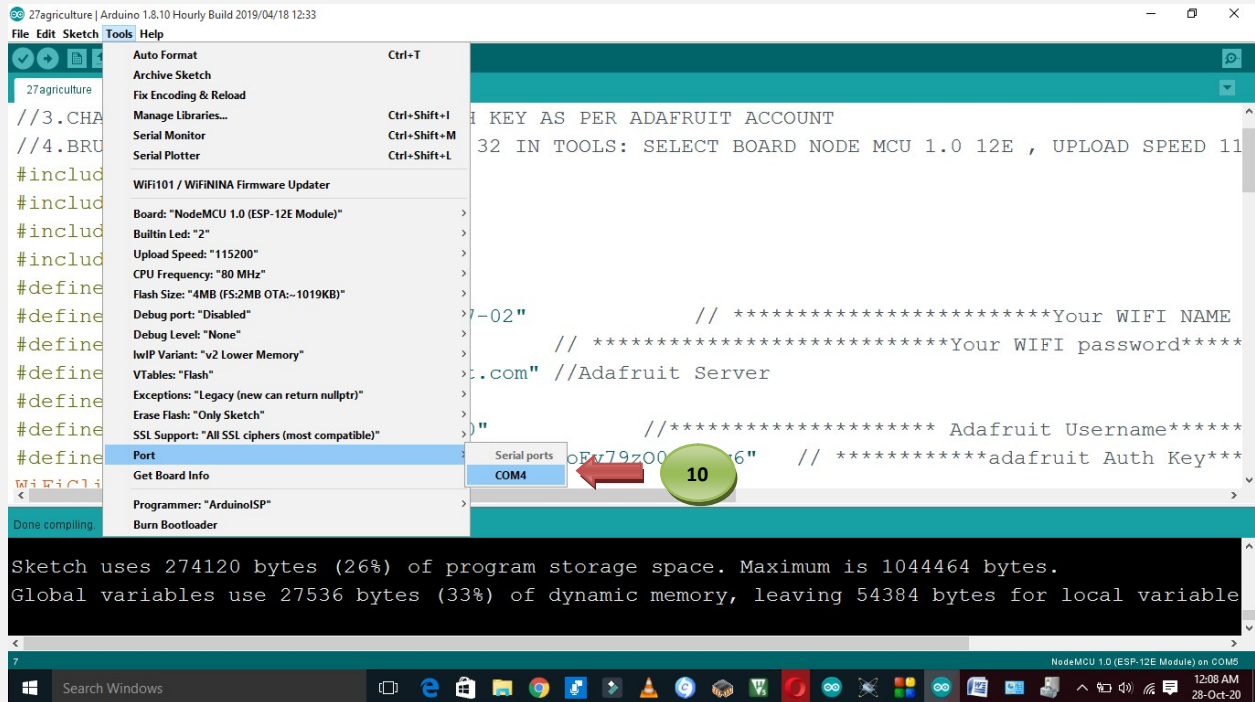
Step 8: Check communication Port:



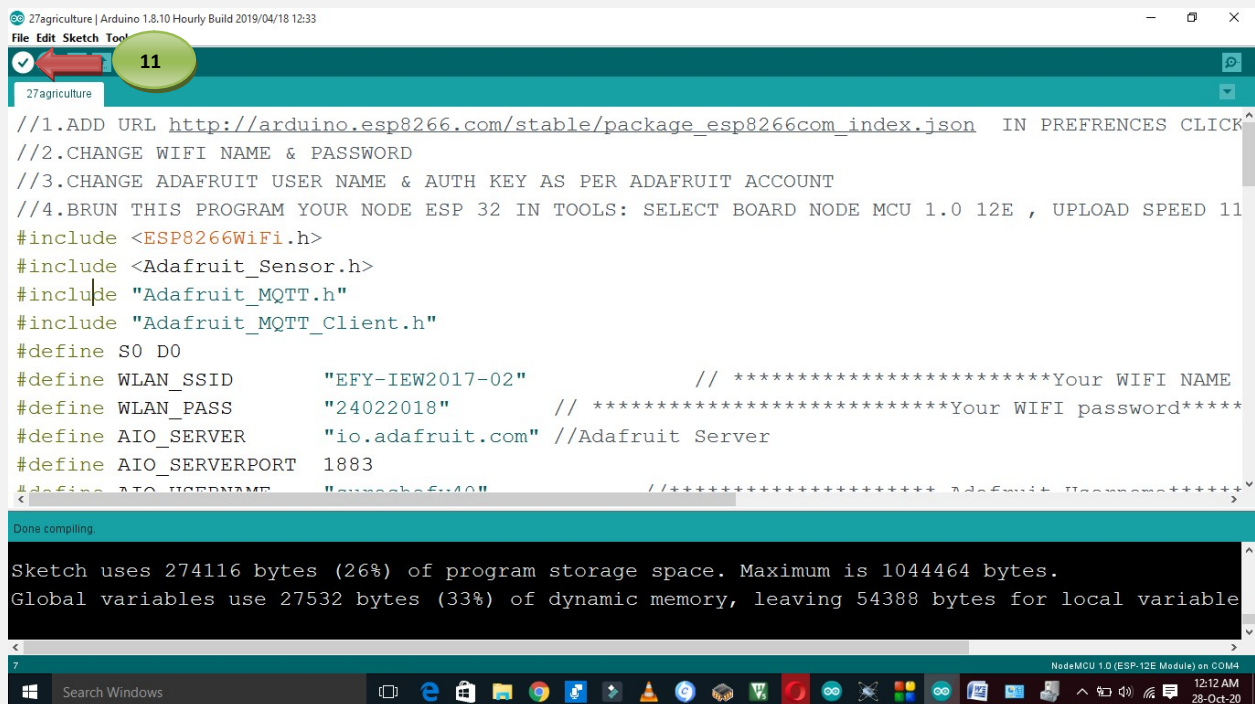
Step 9: Board select:



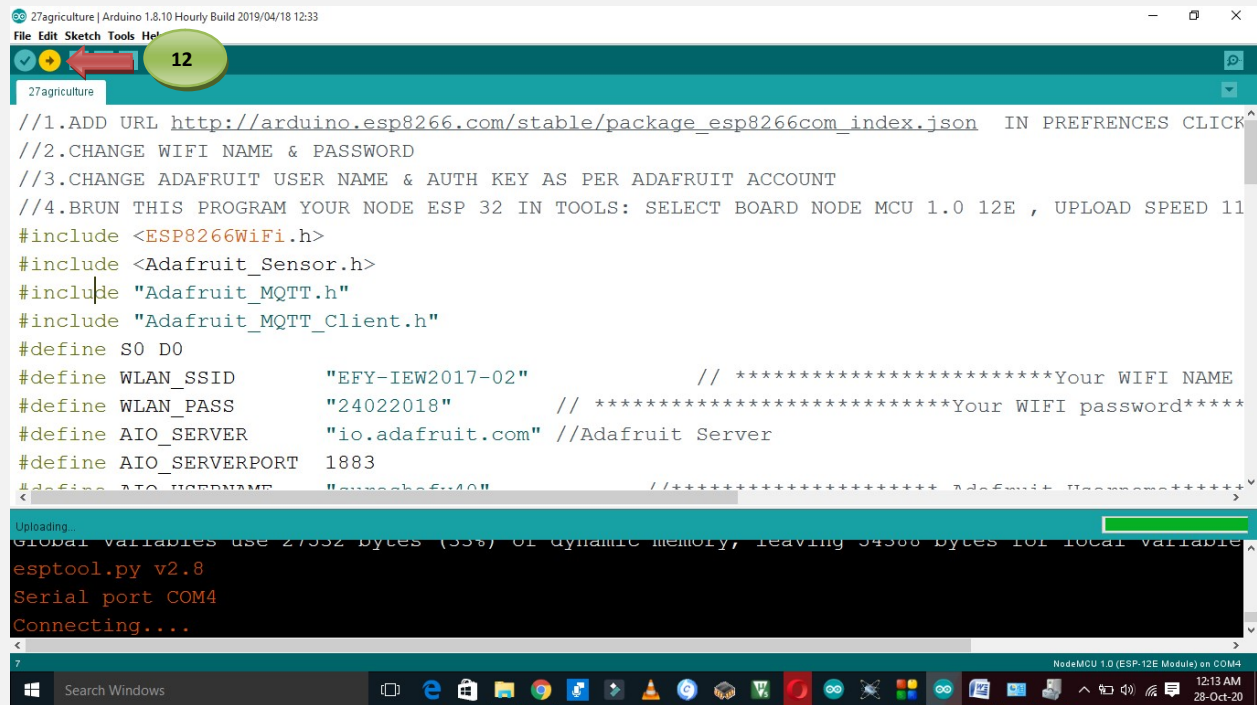
Step 10: Port selection:



Step 11: Verify the program and see done compiling at bottom ->



Step 12: Upload Program ->

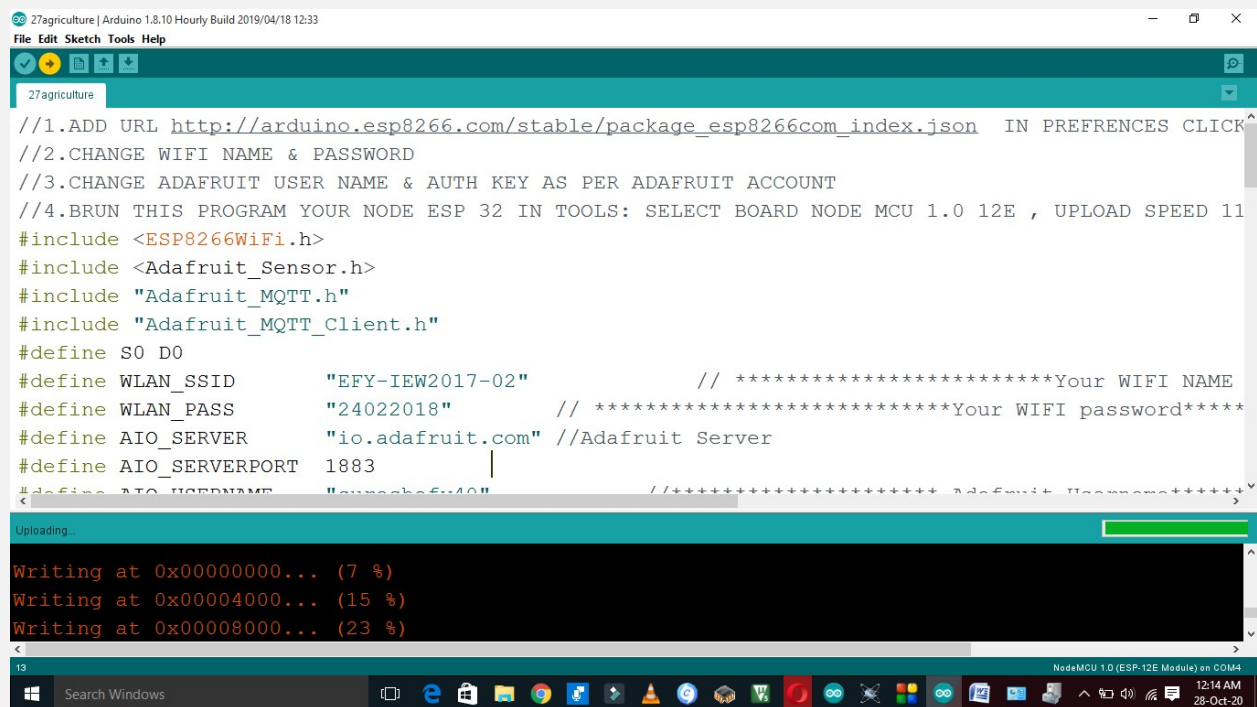


The screenshot shows the Arduino IDE interface. The top menu bar includes File, Edit, Sketch, Tools, and Help. The toolbar has icons for opening files, saving, compiling, and uploading. The sketch editor contains the following code:

```
//1.ADD URL http://arduino.esp8266.com/stable/package\_esp8266com\_index.json IN PREFERENCES CLICK
//2.CHANGE WIFI NAME & PASSWORD
//3.CHANGE ADAFRUIT USER NAME & AUTH KEY AS PER ADAFRUIT ACCOUNT
//4.BRUN THIS PROGRAM YOUR NODE ESP 32 IN TOOLS: SELECT BOARD NODE MCU 1.0 12E , UPLOAD SPEED 11
#include <ESP8266WiFi.h>
#include <Adafruit_Sensor.h>
#include "Adafruit_MQTT.h"
#include "Adafruit_MQTT_Client.h"
#define S0 D0
#define WLAN_SSID "EFY-IEW2017-02" // *****Your WIFI NAME
#define WLAN_PASS "24022018" // *****Your WIFI password*****
#define AIO_SERVER "io.adafruit.com" //Adafruit Server
#define AIO_SERVERPORT 1883
#define AIO_USERNAME "adafruit" //*****Adafruit Username*****
```

The status bar at the bottom indicates "NodeMCU 1.0 (ESP-12E Module) on COM4". The upload progress bar is at 100%.

Global variables use 2752 bytes (33%) of dynamic memory, leaving 5436 bytes for local variables
esptool.py v2.8
Serial port COM4
Connecting....

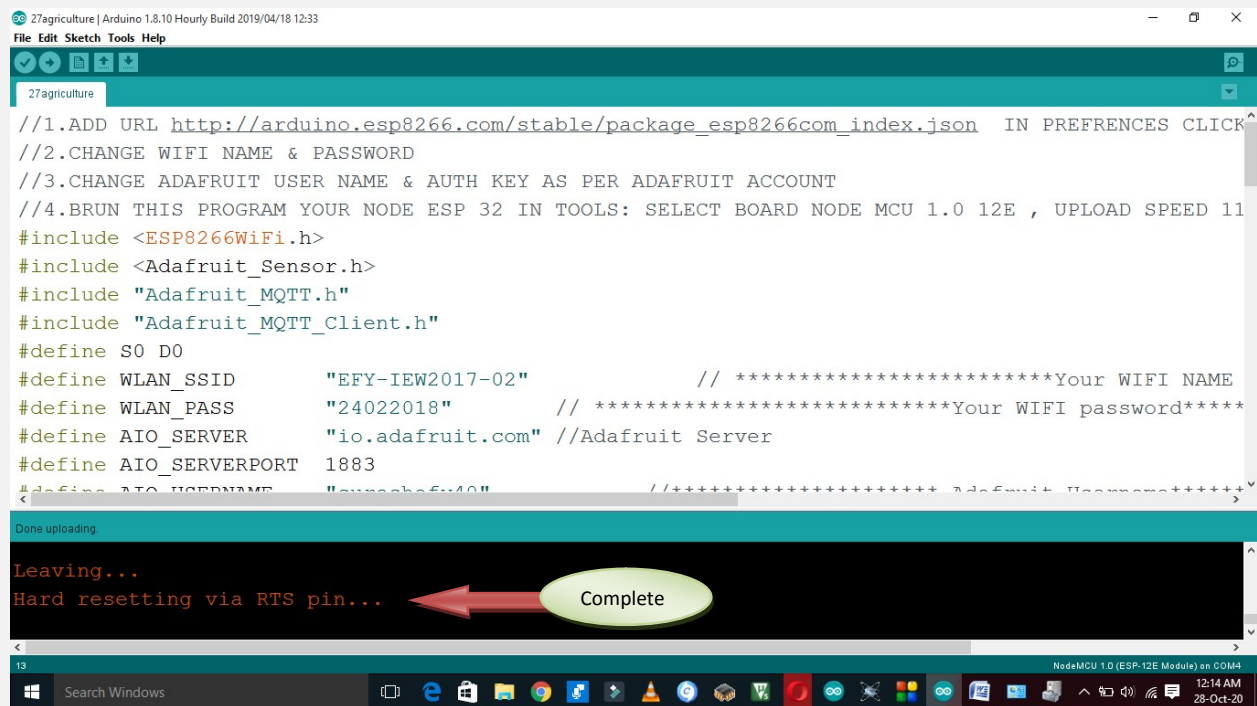


The screenshot shows the Arduino IDE interface. The top menu bar includes File, Edit, Sketch, Tools, and Help. The sketch editor contains the same code as the previous screenshot.

```
//1.ADD URL http://arduino.esp8266.com/stable/package\_esp8266com\_index.json IN PREFERENCES CLICK
//2.CHANGE WIFI NAME & PASSWORD
//3.CHANGE ADAFRUIT USER NAME & AUTH KEY AS PER ADAFRUIT ACCOUNT
//4.BRUN THIS PROGRAM YOUR NODE ESP 32 IN TOOLS: SELECT BOARD NODE MCU 1.0 12E , UPLOAD SPEED 11
#include <ESP8266WiFi.h>
#include <Adafruit_Sensor.h>
#include "Adafruit_MQTT.h"
#include "Adafruit_MQTT_Client.h"
#define S0 D0
#define WLAN_SSID "EFY-IEW2017-02" // *****Your WIFI NAME
#define WLAN_PASS "24022018" // *****Your WIFI password*****
#define AIO_SERVER "io.adafruit.com" //Adafruit Server
#define AIO_SERVERPORT 1883
#define AIO_USERNAME "adafruit" //*****Adafruit Username*****
```

The status bar at the bottom indicates "NodeMCU 1.0 (ESP-12E Module) on COM4". The upload progress bar is at 23%.

Writing at 0x00000000... (7 %)
Writing at 0x00004000... (15 %)
Writing at 0x00008000... (23 %)

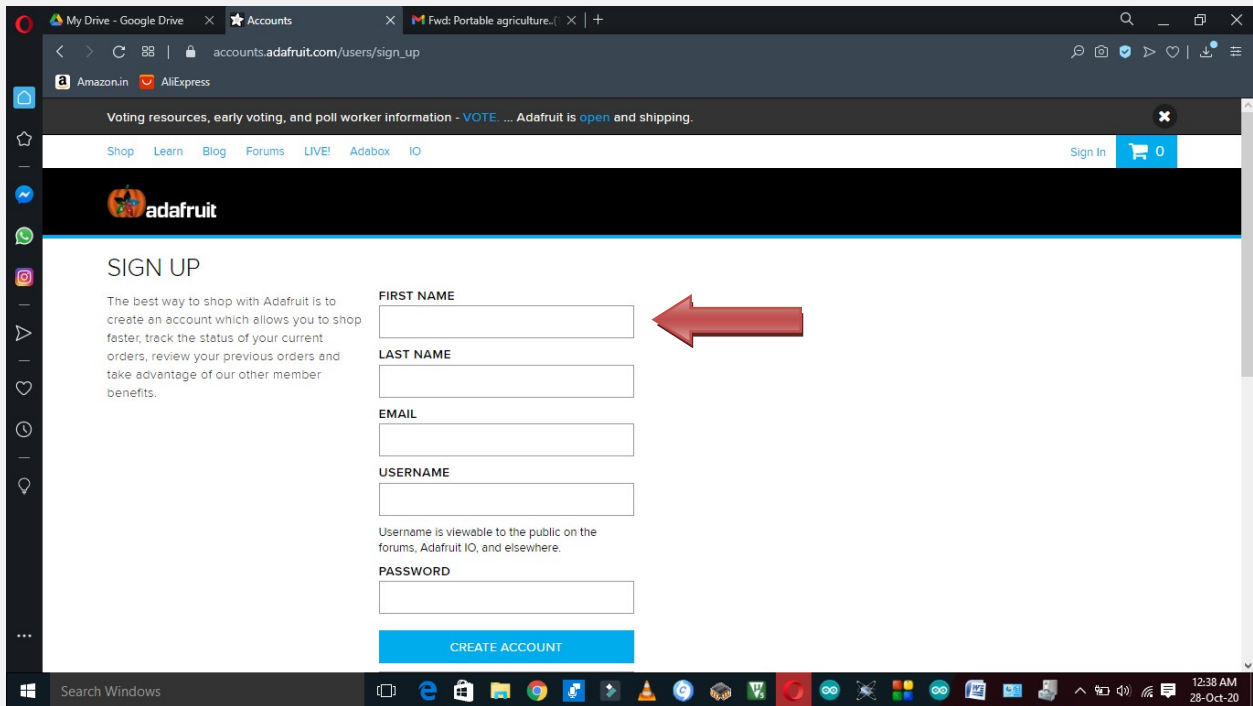


Adafruit IO

For Interfacing on Cloud Terminal access link->

<https://io.adafruit.com/>

Create Account:



The screenshot shows the Adafruit IO sign-up page in a web browser. The page has a dark header with the Adafruit logo and navigation links. The main content area is white and titled "SIGN UP". It includes a brief description of the benefits of creating an account. Below this, there are five input fields: "FIRST NAME", "LAST NAME", "EMAIL", "USERNAME", and "PASSWORD". A red arrow points to the "FIRST NAME" field. At the bottom of the form is a blue "CREATE ACCOUNT" button. The browser's address bar shows the URL "accounts.adafruit.com/users/sign_up".

SIGN UP

The best way to shop with Adafruit is to create an account which allows you to shop faster, track the status of your current orders, review your previous orders and take advantage of our other member benefits.

FIRST NAME

LAST NAME

EMAIL

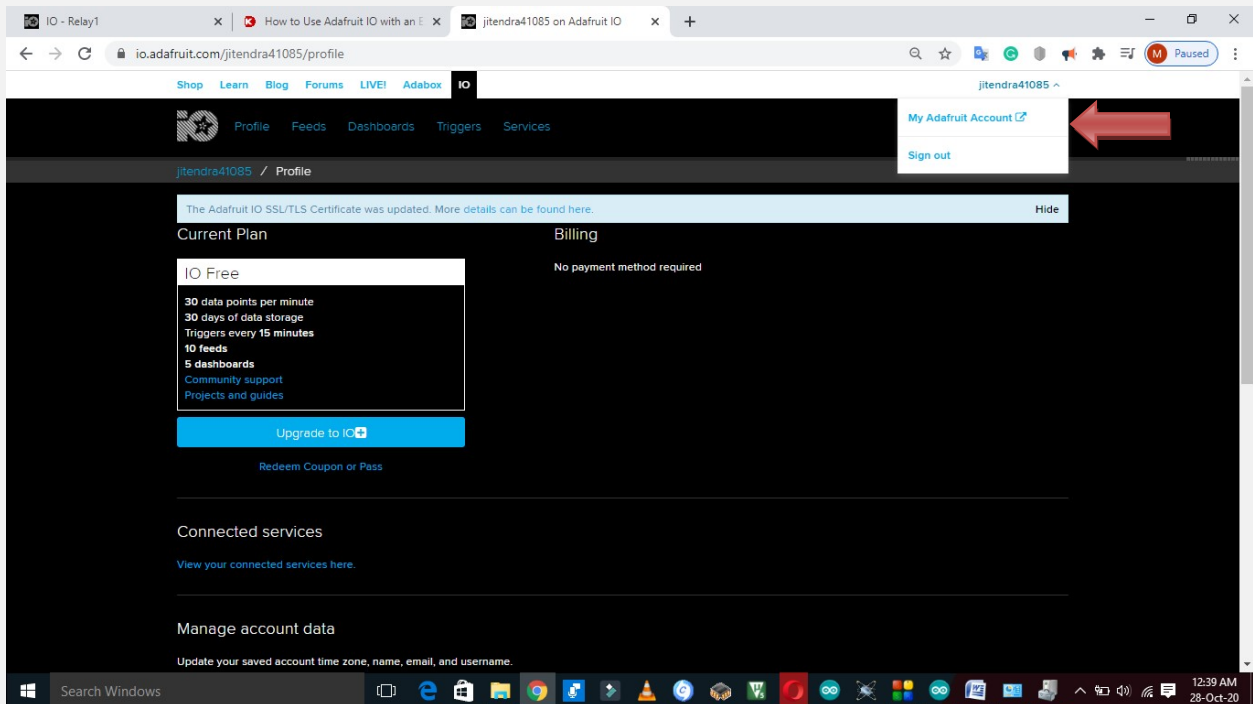
USERNAME

Username is viewable to the public on the forums, Adafruit IO, and elsewhere.

PASSWORD

CREATE ACCOUNT

Login in Account through user name and password



The screenshot shows the user profile page for "jitendra41085" on the Adafruit IO platform. The page has a dark header with the user's name and a dropdown menu. The main content area is white and displays the user's profile information, including their current plan (IO Free) and billing details. A red arrow points to the "My Adafruit Account" link in the header. The page also includes sections for "Connected services" and "Manage account data".

jitendra41085

My Adafruit Account

Sign out

The Adafruit IO SSL/TLS Certificate was updated. More details can be found here.

Current Plan

IO Free

30 data points per minute
30 days of data storage
Triggers every 15 minutes
10 feeds
5 dashboards
Community support
Projects and guides

Upgrade to IO+

Redeem Coupon or Pass

Billing

No payment method required

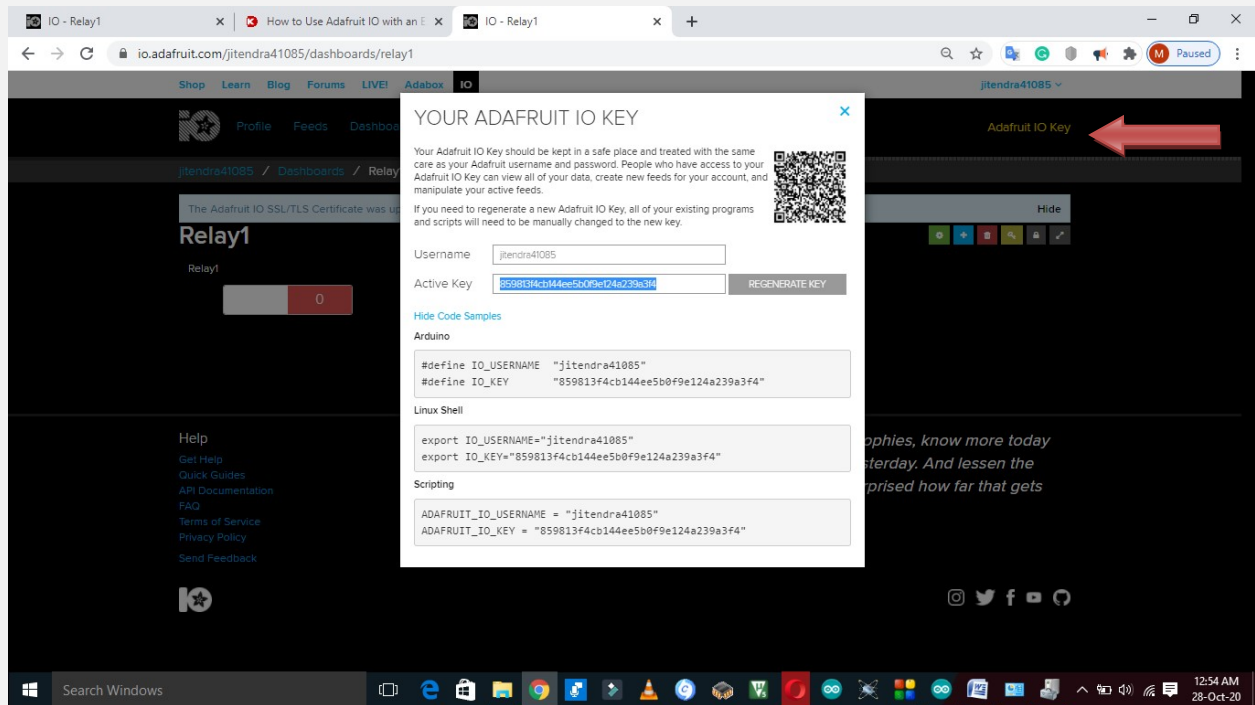
Connected services

View your connected services here.

Manage account data

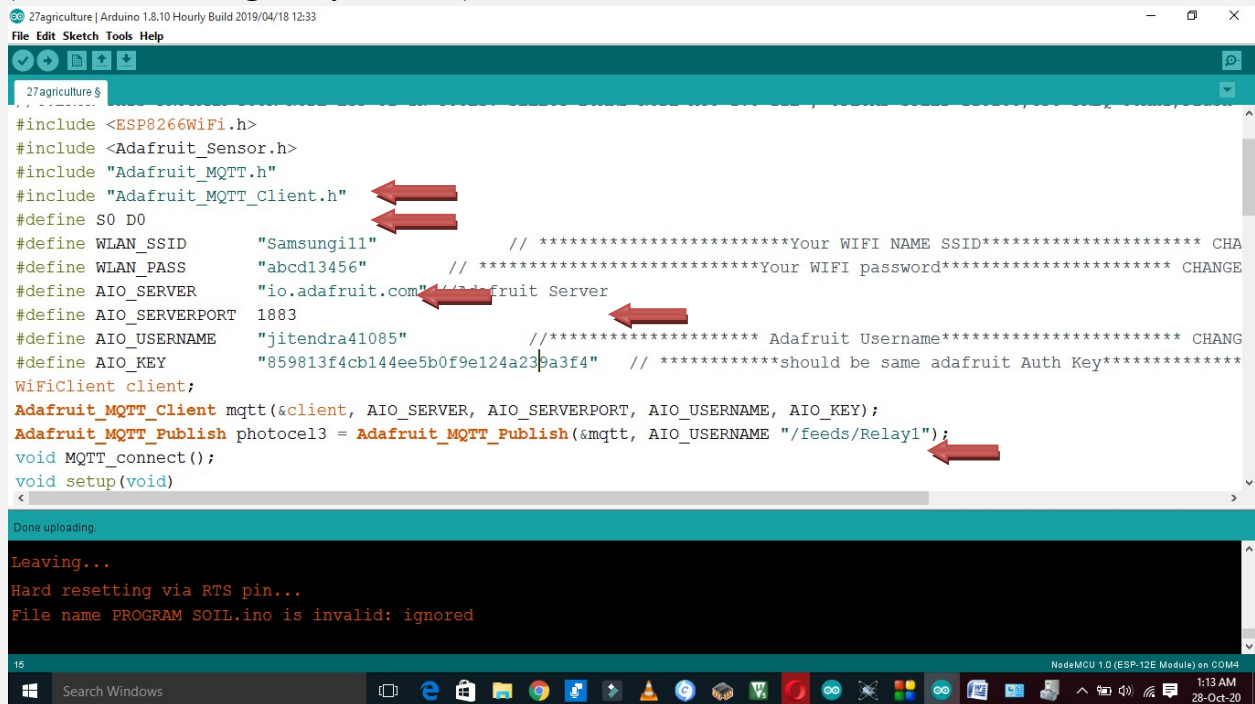
Update your saved account time zone, name, email, and username.

Take User name, and key , which will be required in program

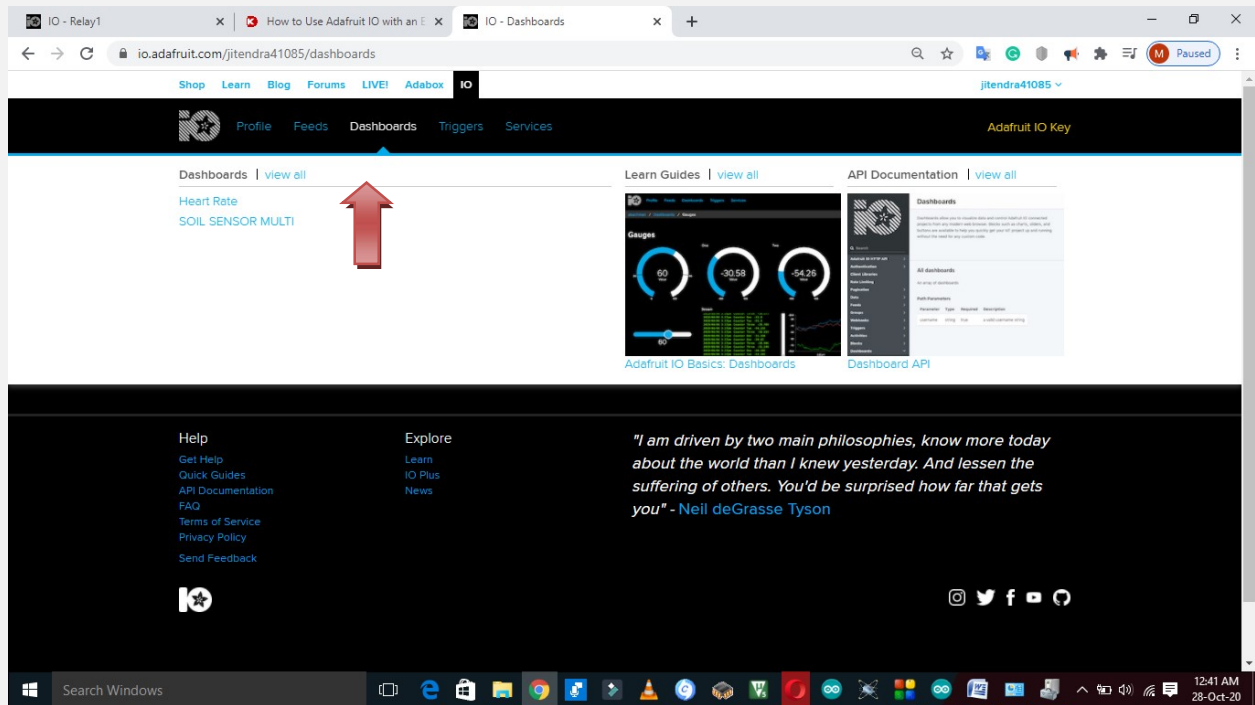


As per Program we required to make feed for live data on portal

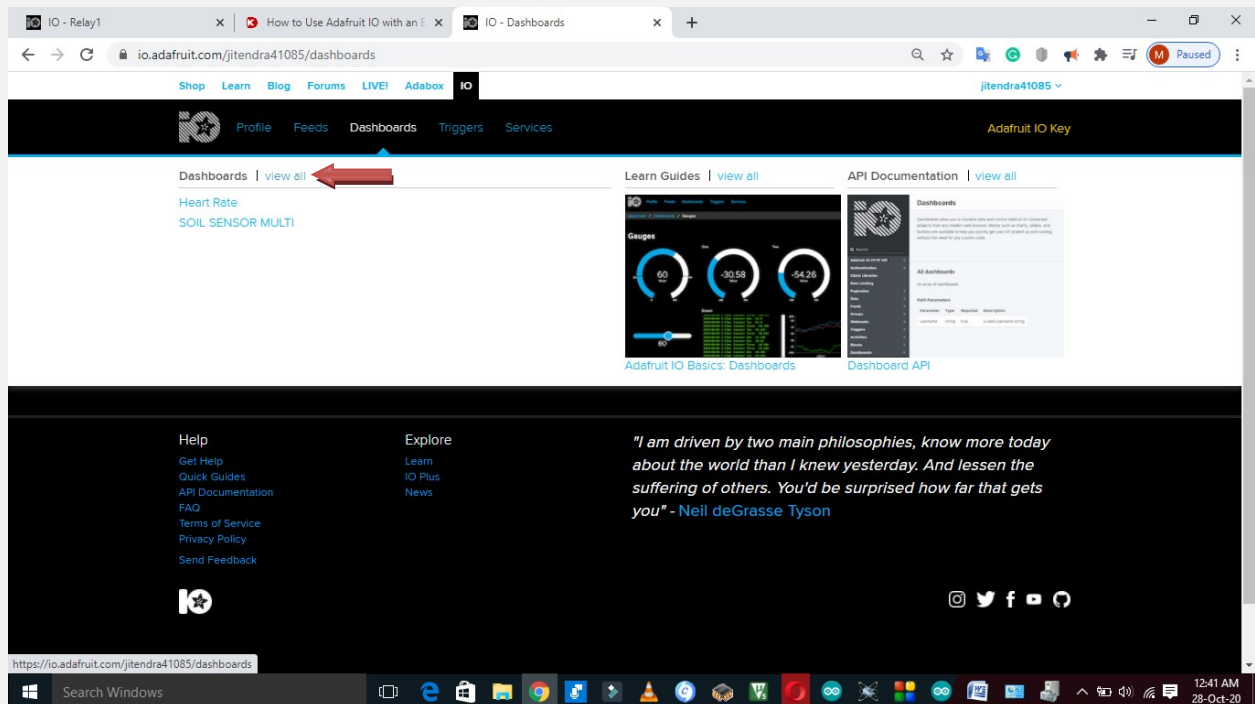
Place Wifi Name, Wifi pswd, Adafruit user name & Auth KEY in prog and feed name
(Here we are using Relay1 as feed).



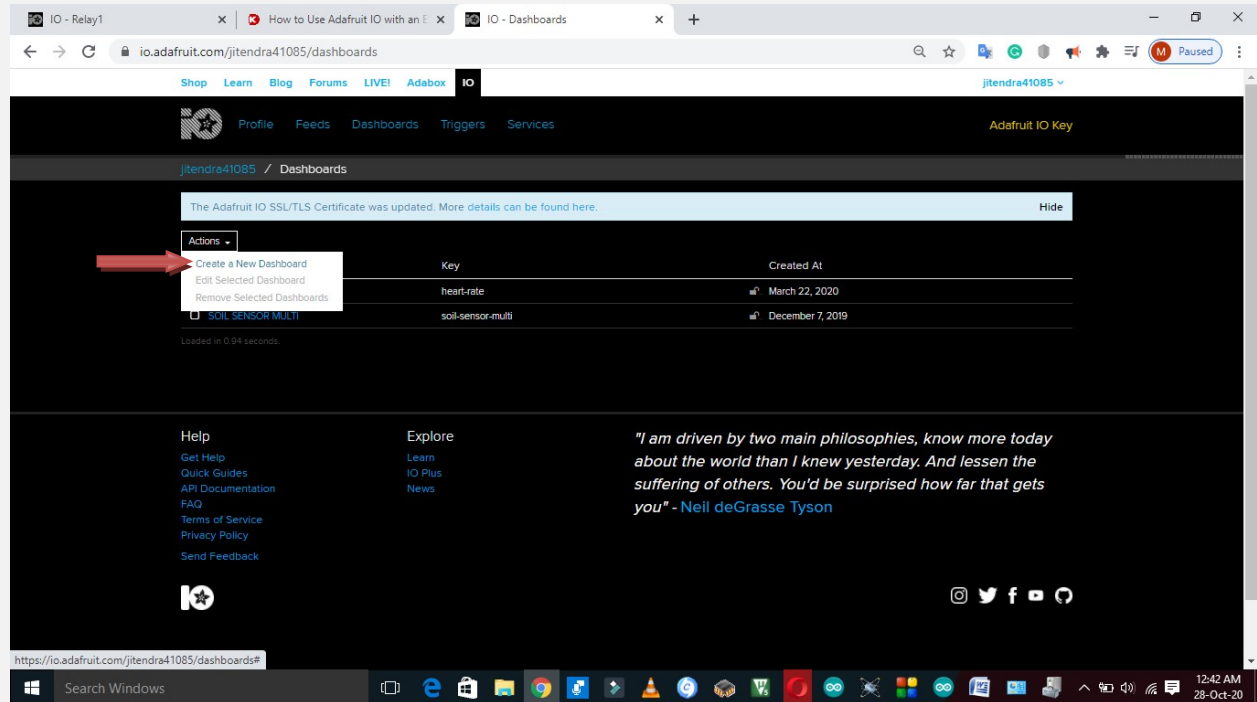
Click on Dash Board



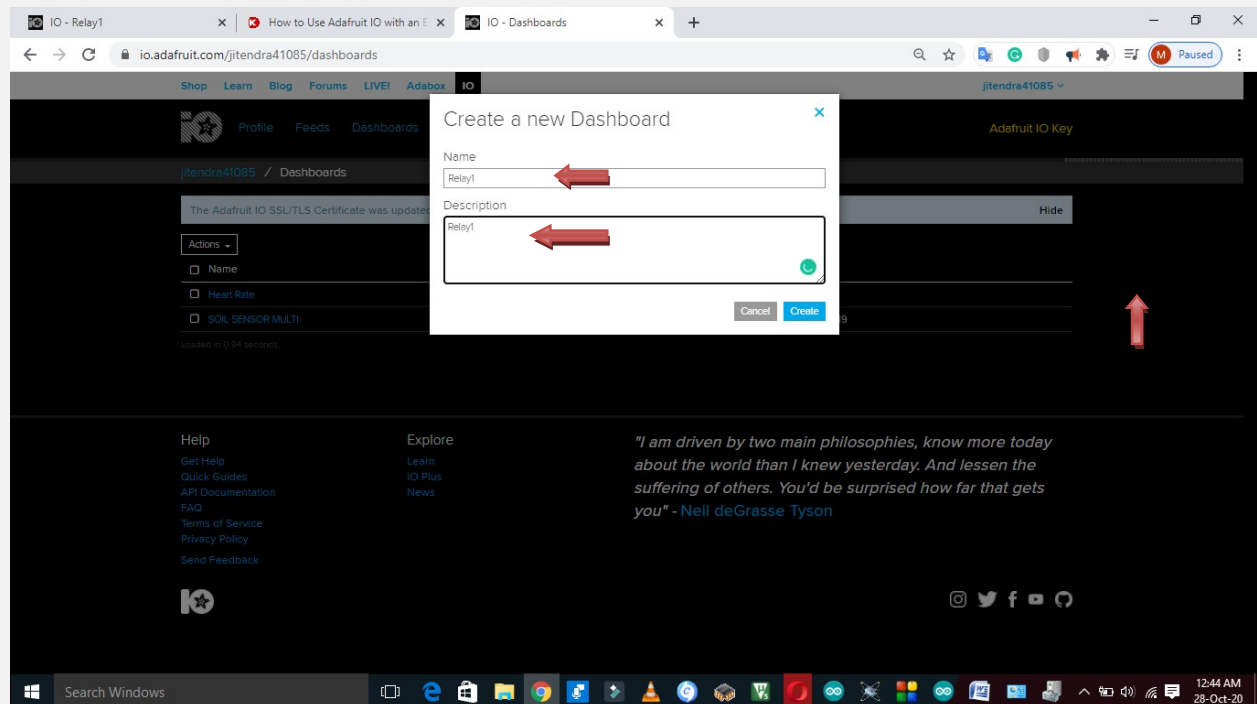
Click on View all



Click on -> action for new dash board



Click on Create dash board and the feed name as mention in program which is **Relay1**



Click on create

Click on Relay1 dashboard Showing as in above picture.

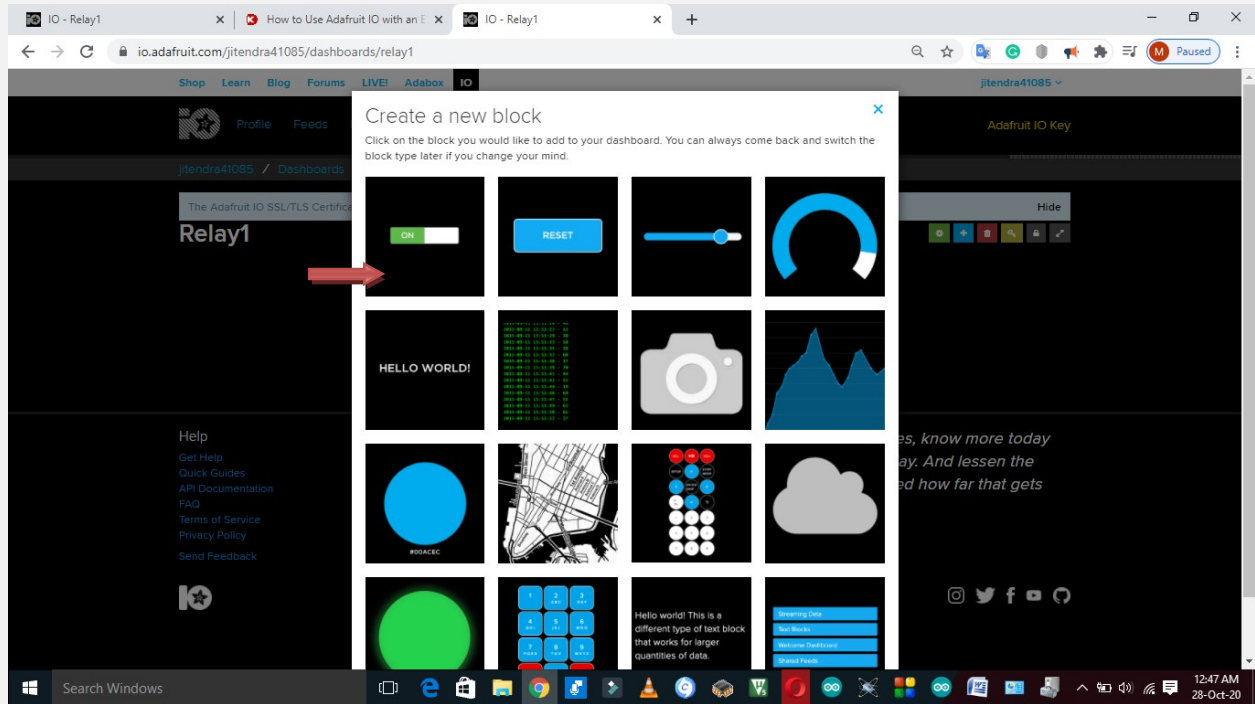
The screenshot shows the Adafruit IO web interface. The browser address bar displays `io.adafruit.com/jitendra41085/dashboards`. The page header includes navigation links: Shop, Learn, Blog, Forums, LIVE!, and Adabox. The user's profile is 'jitendra41085' with an 'Adafruit IO Key' displayed. The main content area is titled 'Dashboards' and contains a notification about the SSL/TLS certificate update. Below this is a table of dashboards:

Name	Key	Created At
Heart Rate	heart-rate	March 22, 2020
Relay1	relay1	October 28, 2020
SOIL SENSOR MULTI	soil-sensor-multi	December 7, 2019

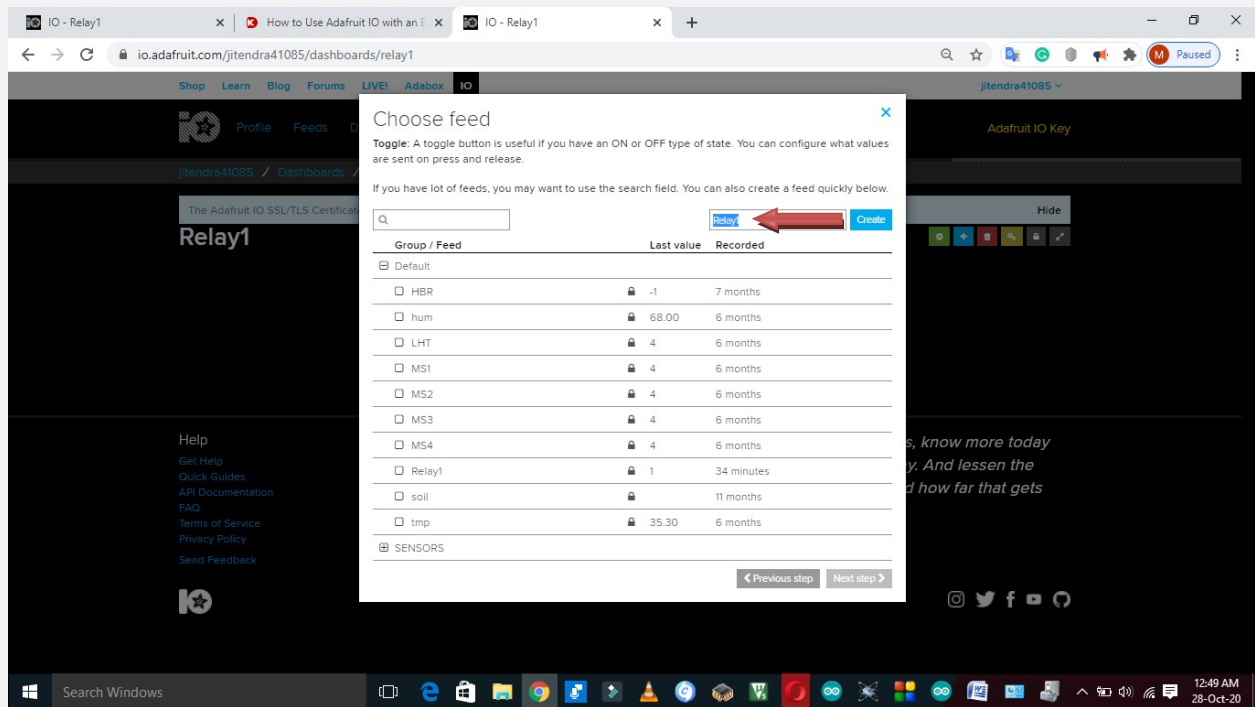
A red arrow points to the 'Relay1' row. The footer contains a 'Help' section, an 'Explore' section, and a quote by Neil deGrasse Tyson.

The screenshot shows the Adafruit IO web interface for the 'Relay1' dashboard. The browser address bar displays `io.adafruit.com/jitendra41085/dashboards/relay1`. The page header includes navigation links: Shop, Learn, Blog, Forums, LIVE!, and Adabox. The user's profile is 'jitendra41085' with an 'Adafruit IO Key' displayed. The main content area is titled 'Relay1' and contains a notification about the SSL/TLS certificate update. Below this is a row of dashboard icons, with a red arrow pointing to the 'Relay1' icon. The footer contains a 'Help' section, an 'Explore' section, and a quote by Neil deGrasse Tyson.

Add feed by click on Plus + Button and Click on slide button in Panel 1st Position



Add name Relay1 and create



Click on Relay1 feed

The screenshot shows the Adafruit IO dashboard with the 'Choose feed' dialog box open. The dialog box contains a table of feeds with columns for 'Group / Feed', 'Last value', and 'Recorded'. The 'Relay1' feed is selected. A red arrow points to the 'Relay1' feed, and another red arrow points to the 'Next step' button.

Group / Feed	Last value	Recorded
Default		
<input type="checkbox"/> HBR	-1	7 months
<input type="checkbox"/> hum	68.00	6 months
<input type="checkbox"/> LHT	4	6 months
<input type="checkbox"/> MS1	4	6 months
<input type="checkbox"/> MS2	4	6 months
<input type="checkbox"/> MS3	4	6 months
<input type="checkbox"/> MS4	4	6 months
<input checked="" type="checkbox"/> Relay1		less than a ...
<input type="checkbox"/> soil		11 months
<input type="checkbox"/> tmp	35.30	6 months
SENSORS		

Click on Next Button and add 1, 0 or ON or off button text and create block

The screenshot shows the Adafruit IO dashboard with the 'Block settings' dialog box open. The dialog box contains fields for 'Block Title (optional)', 'Button On Text', and 'Button Off Text'. The 'Block Title' field is highlighted with a red arrow. The 'Create block' button is also highlighted with a red arrow.

Block Title (optional): Relay1

Button On Text: 1

Button Off Text: 0

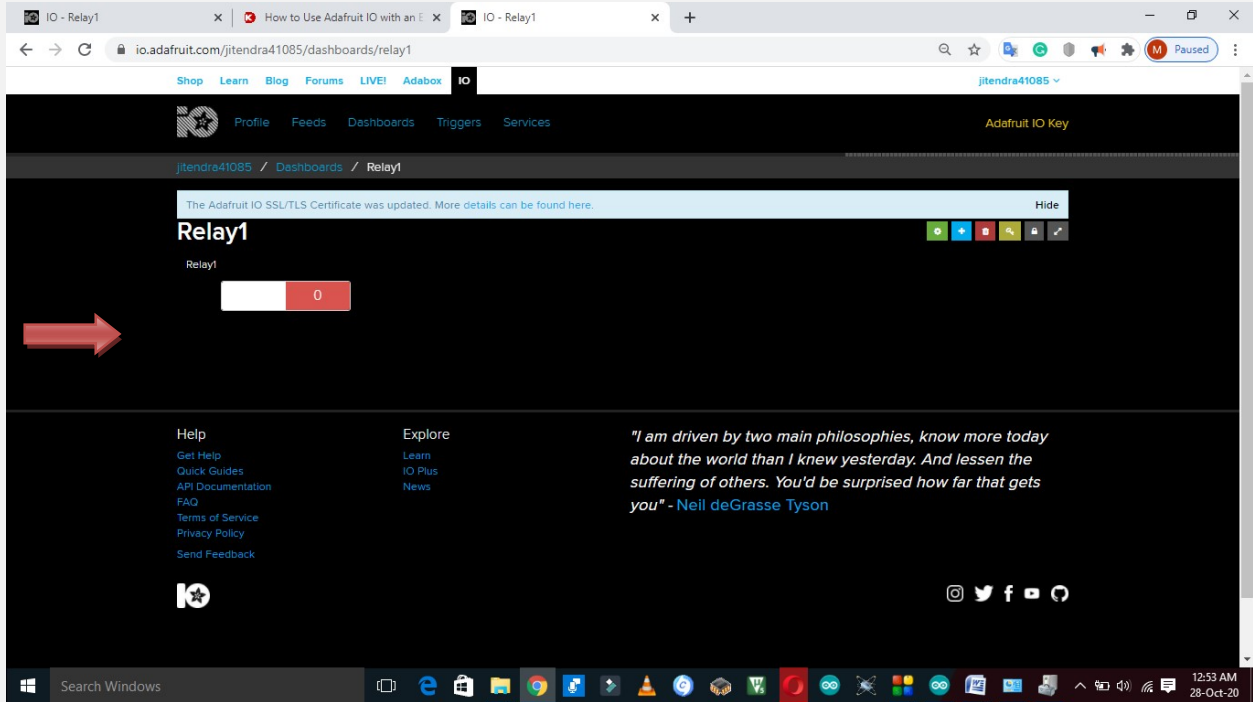
Block Preview: Relay1

Toggle A toggle button is useful if you have an ON or OFF type of state. You can configure what values are sent on press and release.

Test Value: 45

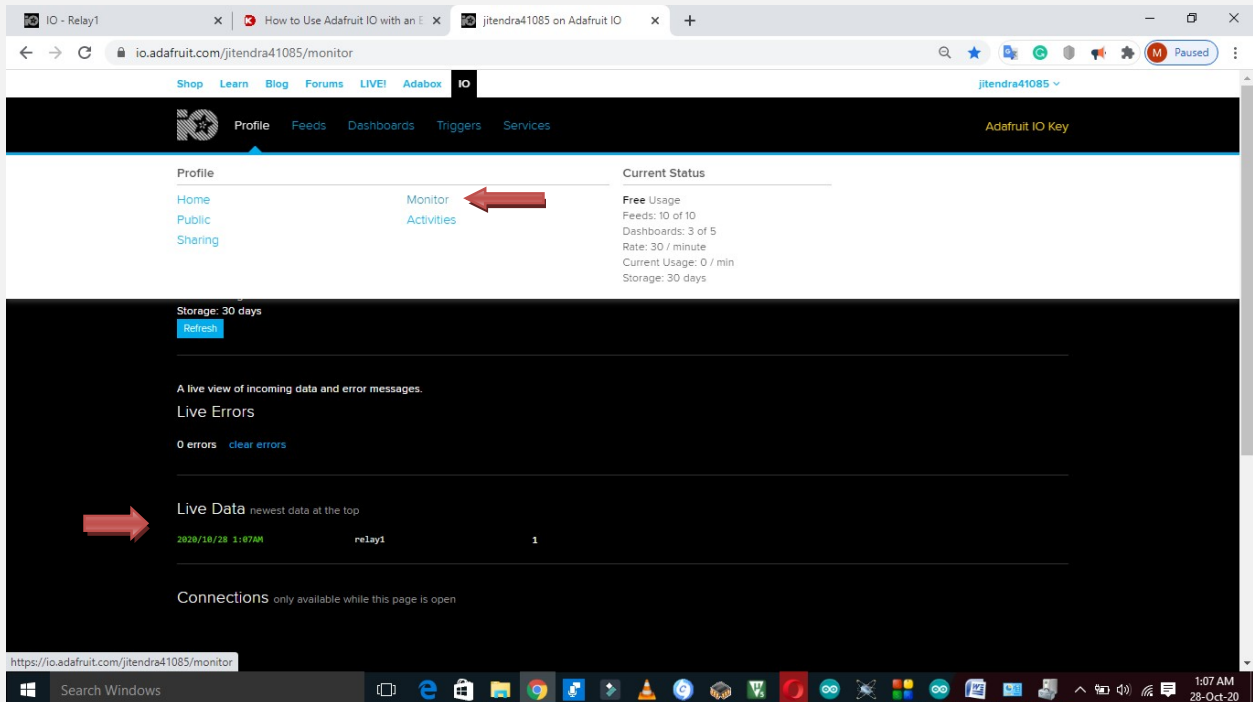
Published Value: 0 bytes

Final : Status of Relay1 from Feed



The screenshot shows the Adafruit IO dashboard for a device named 'Relay1'. The URL in the browser is io.adafruit.com/jitendra41085/dashboards/relay1. The dashboard has a dark theme. At the top, there's a navigation bar with links like Shop, Learn, Blog, Forums, LIVE!, and Adabox. Below that, the device name 'Relay1' is displayed. A status bar shows a red indicator and the value '0'. A red arrow points to this status bar. The bottom section contains links for Help, Explore, and a quote by Neil deGrasse Tyson. The Windows taskbar is visible at the bottom.

We can also see live data from profile by monitor section



The screenshot shows the Adafruit IO monitor page for the same device. The URL is io.adafruit.com/jitendra41085/monitor. The page has a dark theme. On the left, there's a navigation menu with links like Profile, Home, Public, Sharing, Monitor, and Activities. A red arrow points to the 'Monitor' link. The main content area shows the 'Current Status' and 'Live Data' section. The 'Live Data' section has a table with one entry: 2020/10/28 1:07AM, relay1, 1. A red arrow points to the 'Live Data' section. The Windows taskbar is visible at the bottom.