**Experiment 1:** To check the sensor communication with node and see data serially.

**THEORY:** In this experiment we first check our sensor and calibrate it for the value which we want to see on app. So first we check the sensor serially.

**PROCEDURE:**

1. Let us suppose we have PIR Sensor, so first place the sensor in connector one of node.
2. And burn the code in controller using Arduino software, take digital 2 pin for PIR sensor Reading.
3. As Sensor, gives a reading in high or low , so just digitalread(2) and display it Serially on PC
4. If there is metal in front of PIR , It gives a high signal and display “HIGH” Serially and in case of low signal ,it display “LOW”.
5. Burn the code through USB through connector which is in between of connector1 and connector2.

**RESULT:** Sensor communication with node and see data serially done.

**PRECAUTION :**

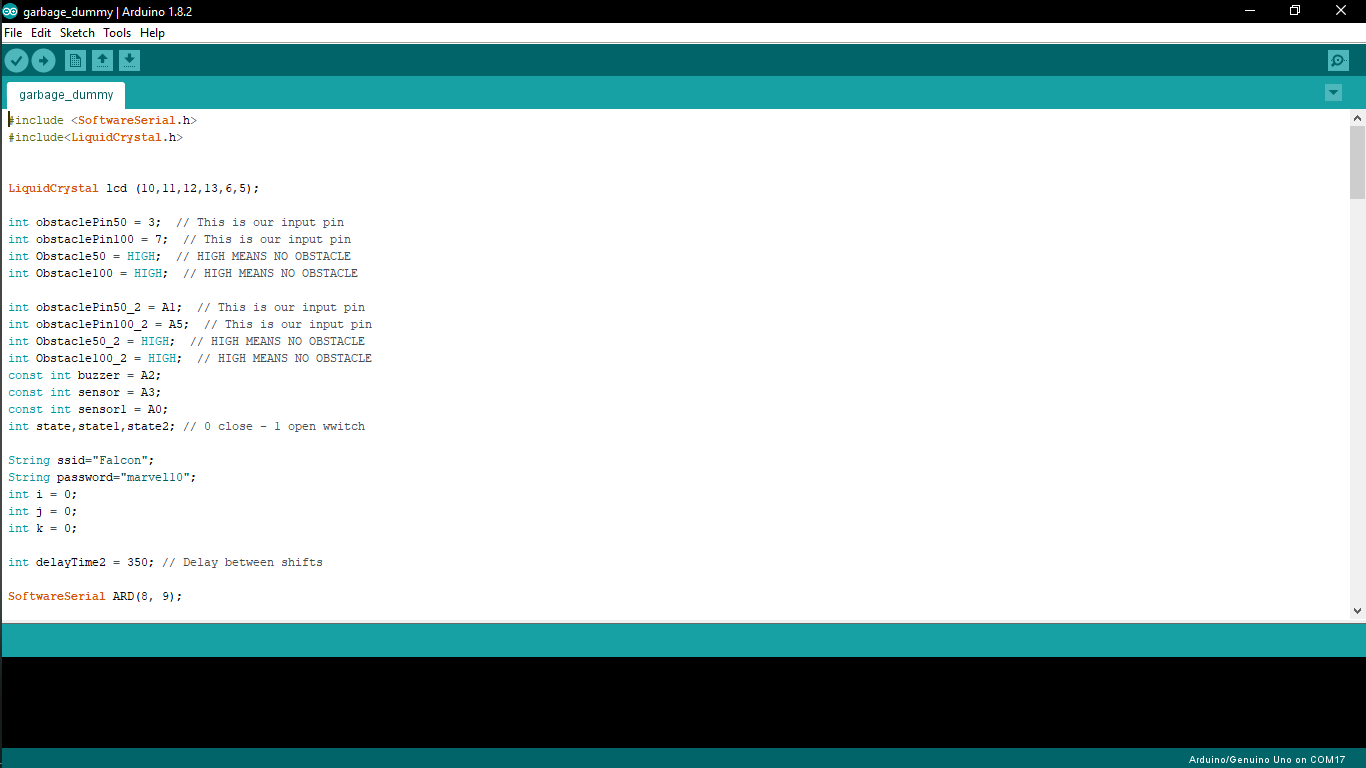
1. Check connector should be placed at right place.

**Experiment 2:** To change the wifi SSID and Password.

**THEORY:** In this experiment we change the SSID and Password as per your wifi SSID and Password.

**PROCEDURE:**

1. Open the IOT\_Sensor\_Interfacing\_node1.



In code here we have to change the SSID and Password

1. Then save the code and burn into the node through USB.

**RESULT:** Wifi SSID and Password has been changed.

**PRECAUTION :**

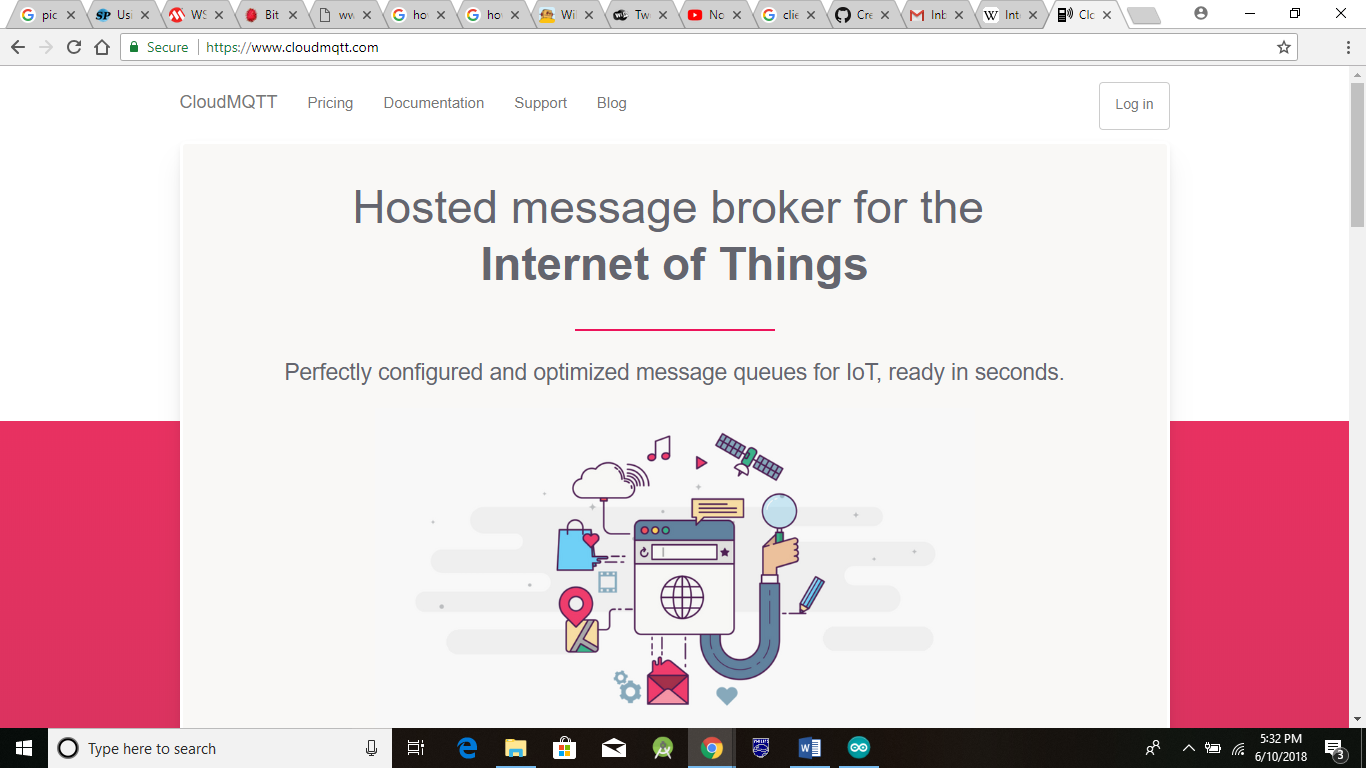
**1.**Check connector should be placed at right place.

**Experiment 3:** To check the data on cloud.

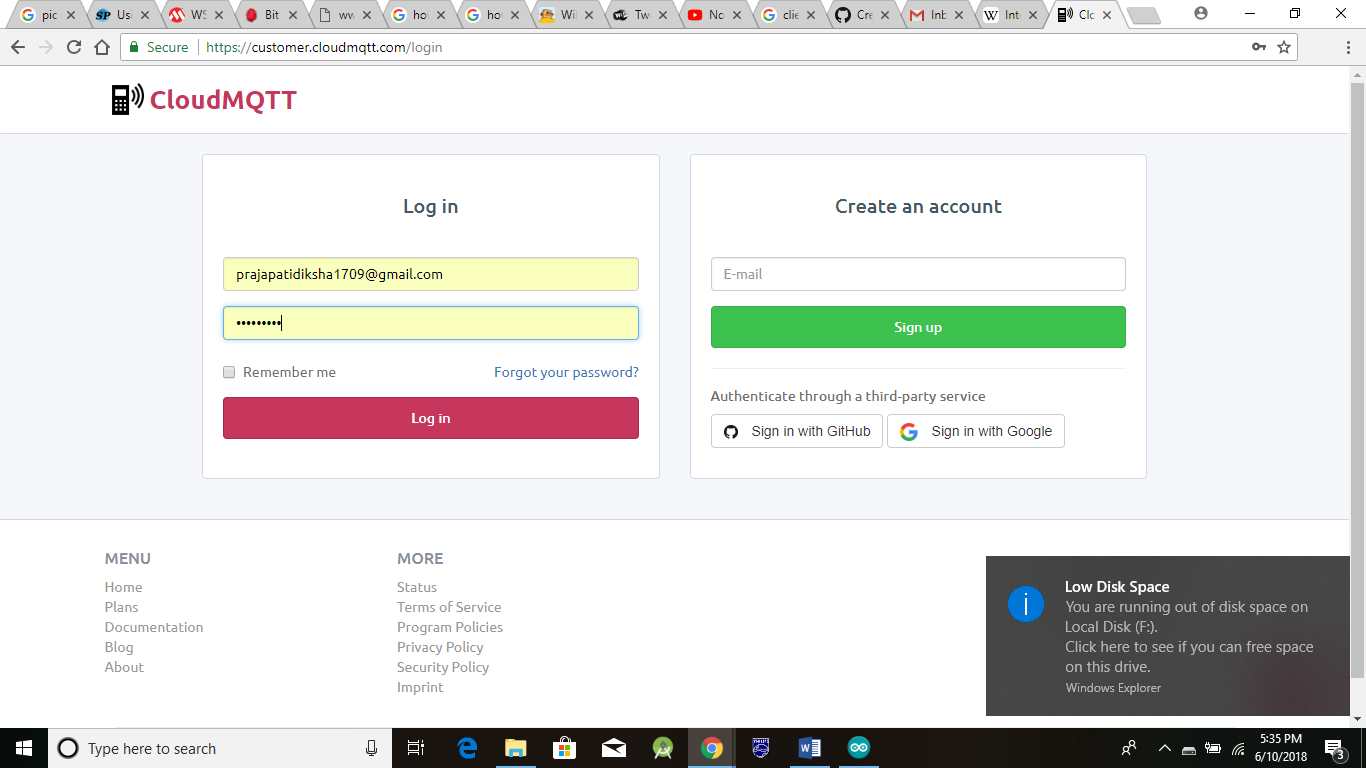
**THEORY:** In this experiment we will check the data on cloud.

**PROCEDURE:**

1. First burn the IOT\_Sensor\_interfacing\_node.ino file code in node 1
2. Then open the chrome , open this link” <https://www.cloudmqtt.com/>”.

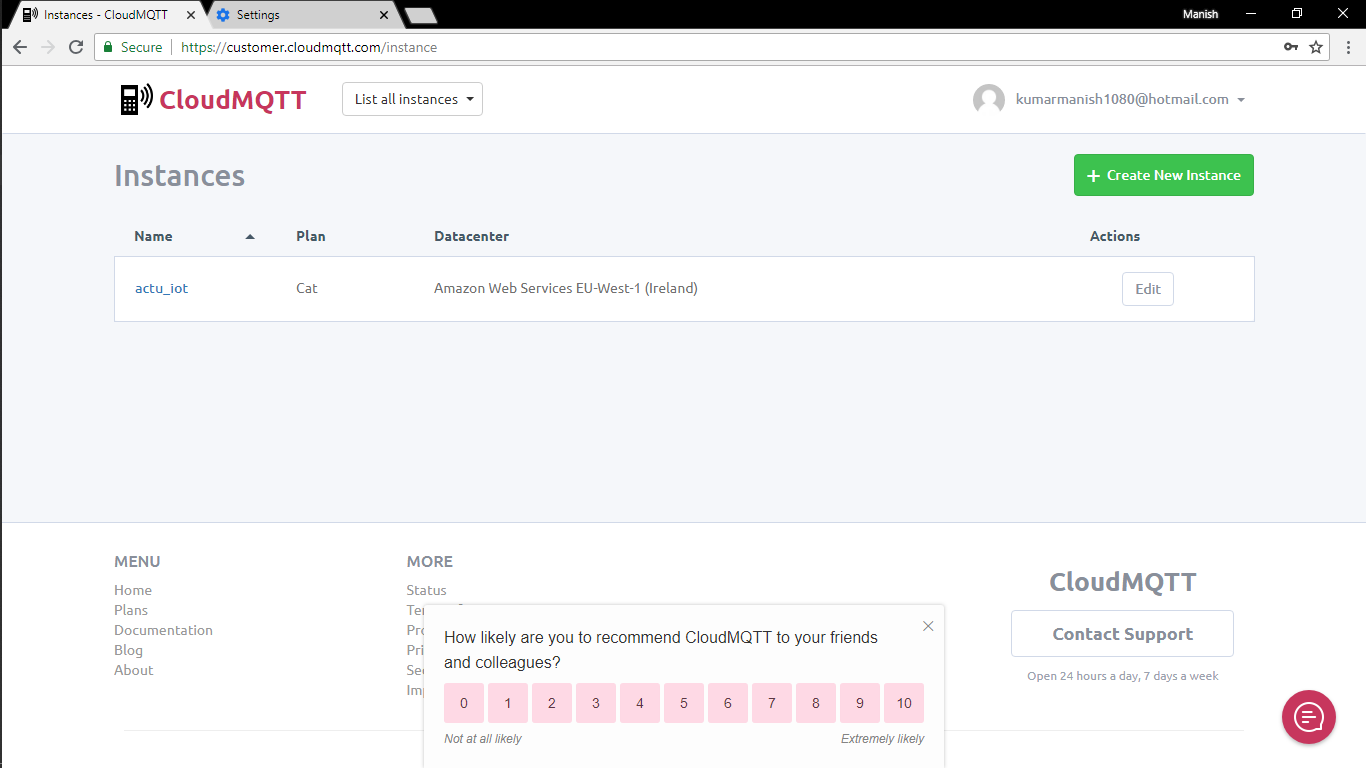


**Press the login button**

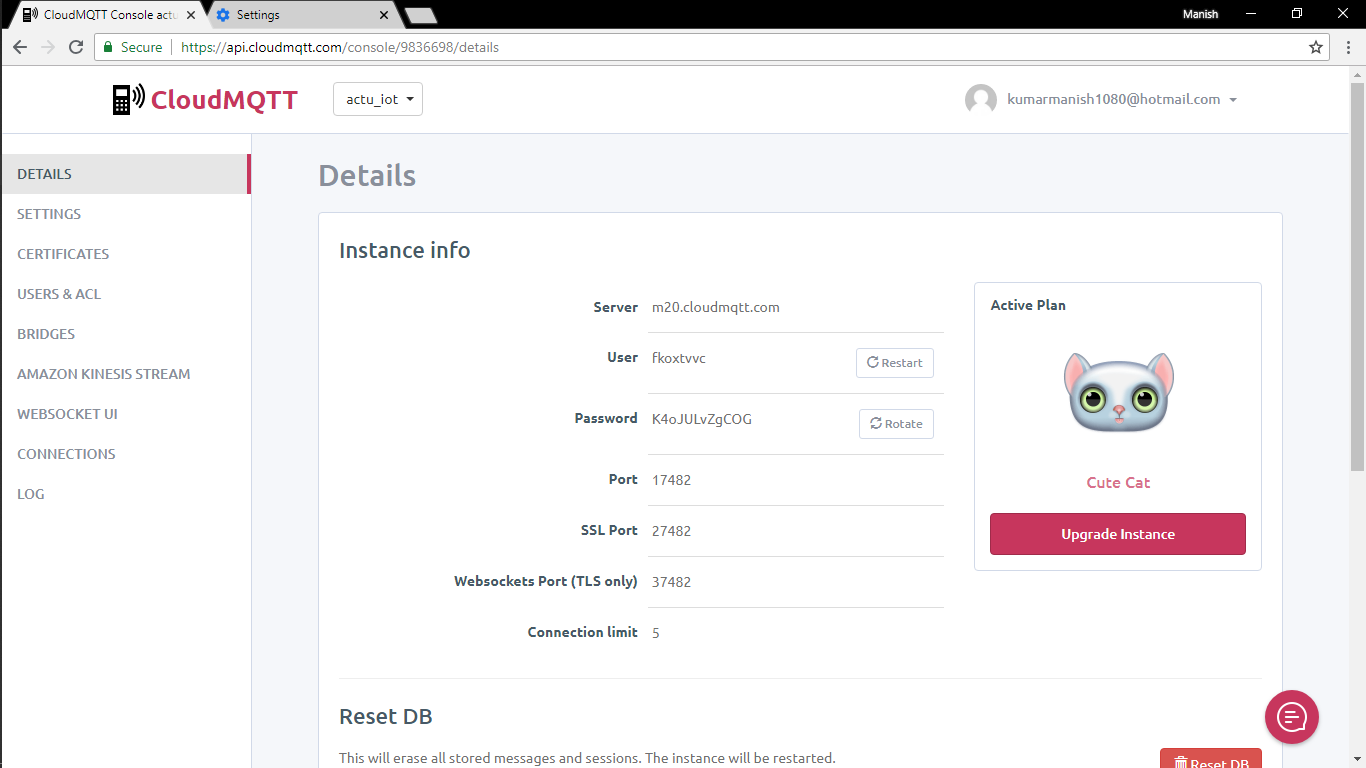


1. User Id: kumarmanish1080@hotmail.com

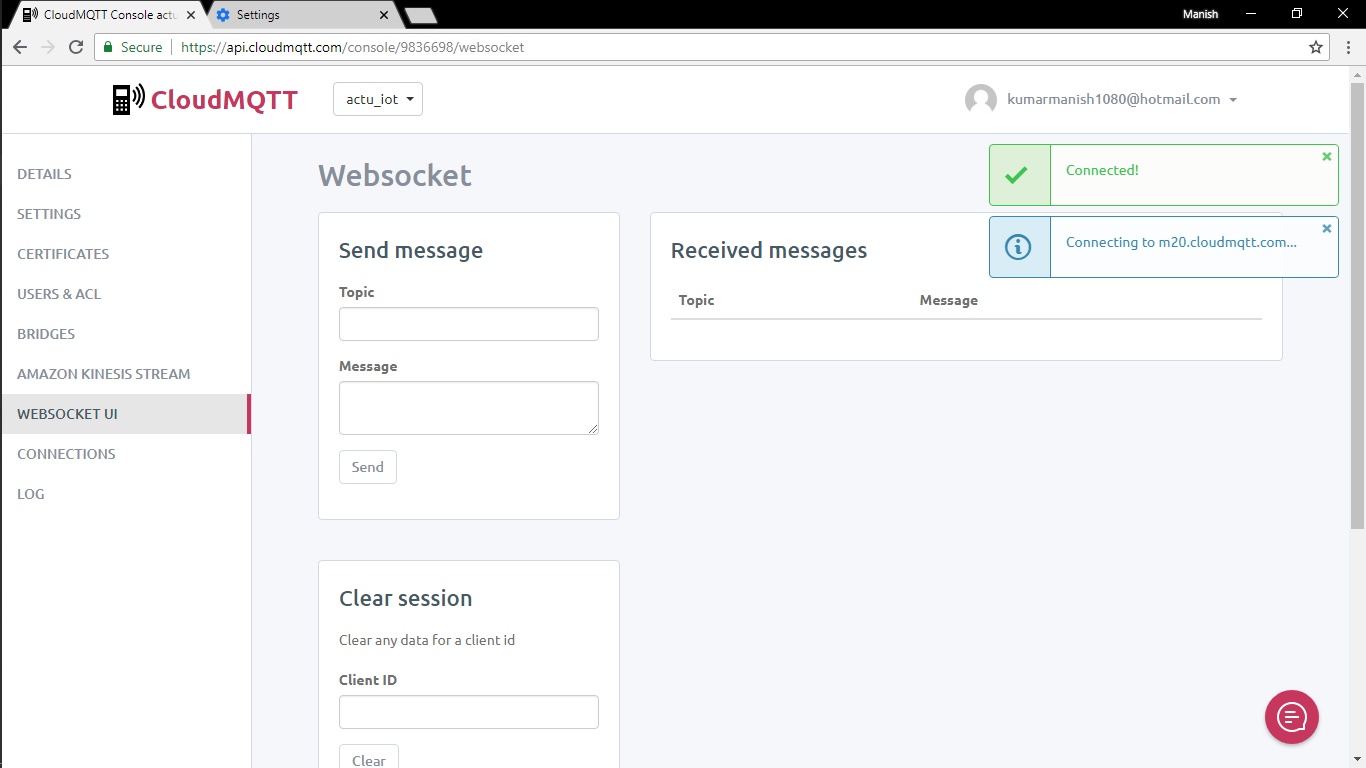
Password: Manish@123

1. 

**Click here**

1. 

**Click here on WEBSOCKET UI**

1. 

You can see data here

**RESULT:** To check the data on cloud has been done.

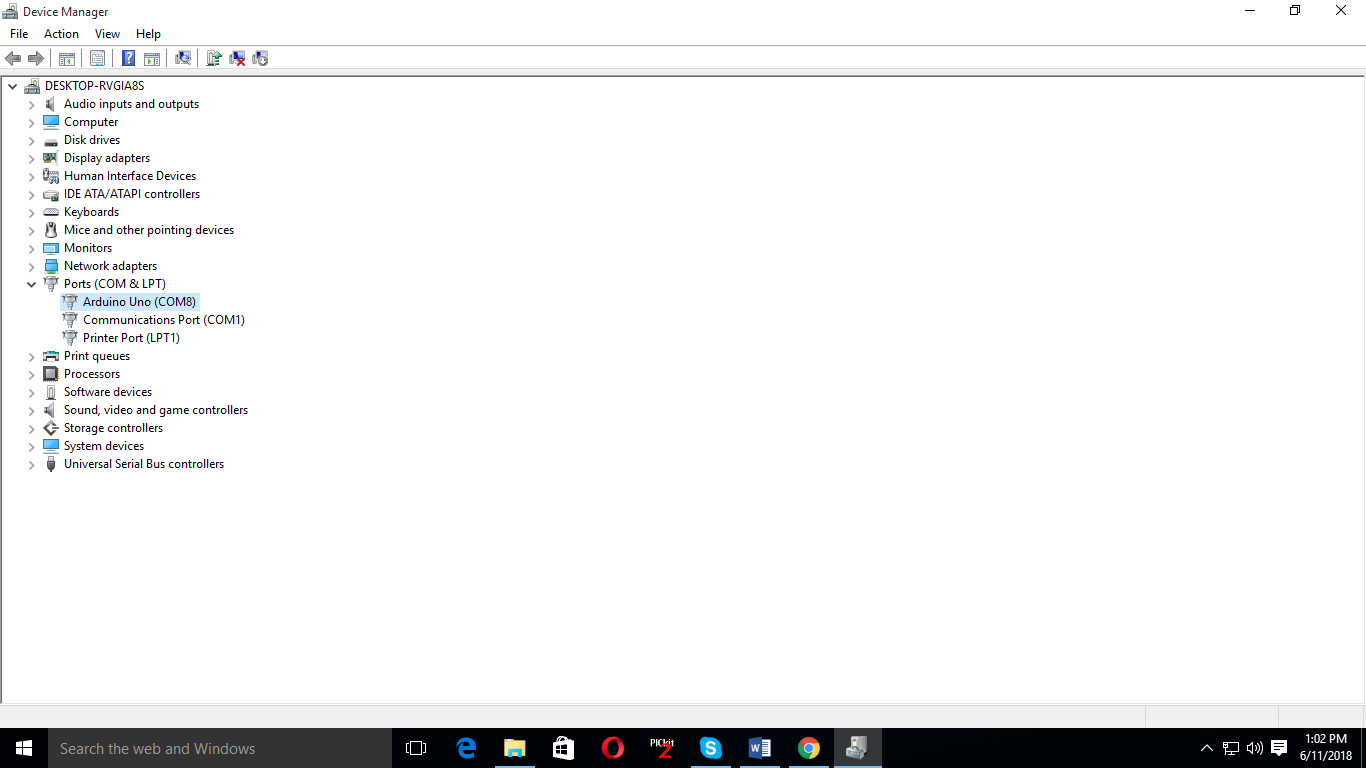
**PRECAUTION :**

**1.**Check connector should be placed at right place.

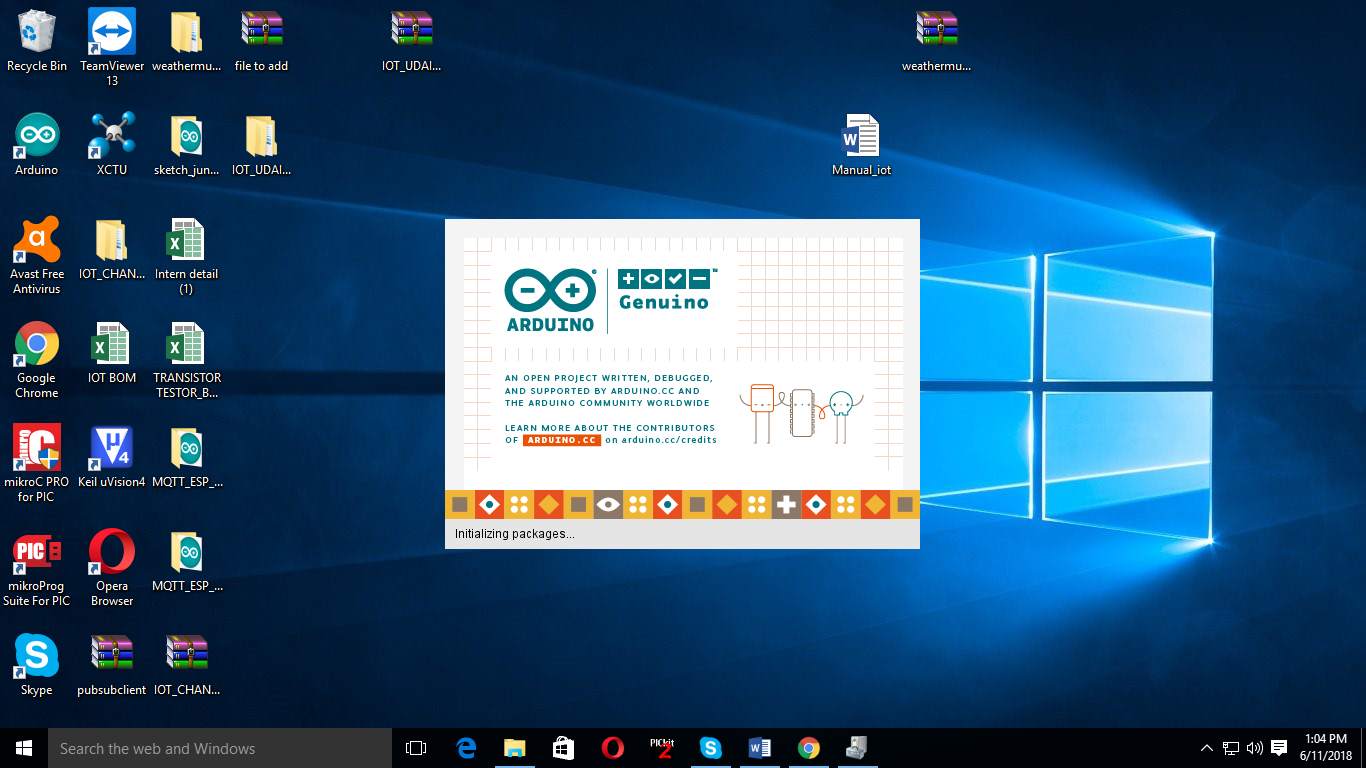
**Appendix A:** How to burn Code on Node.

Steps to follow:

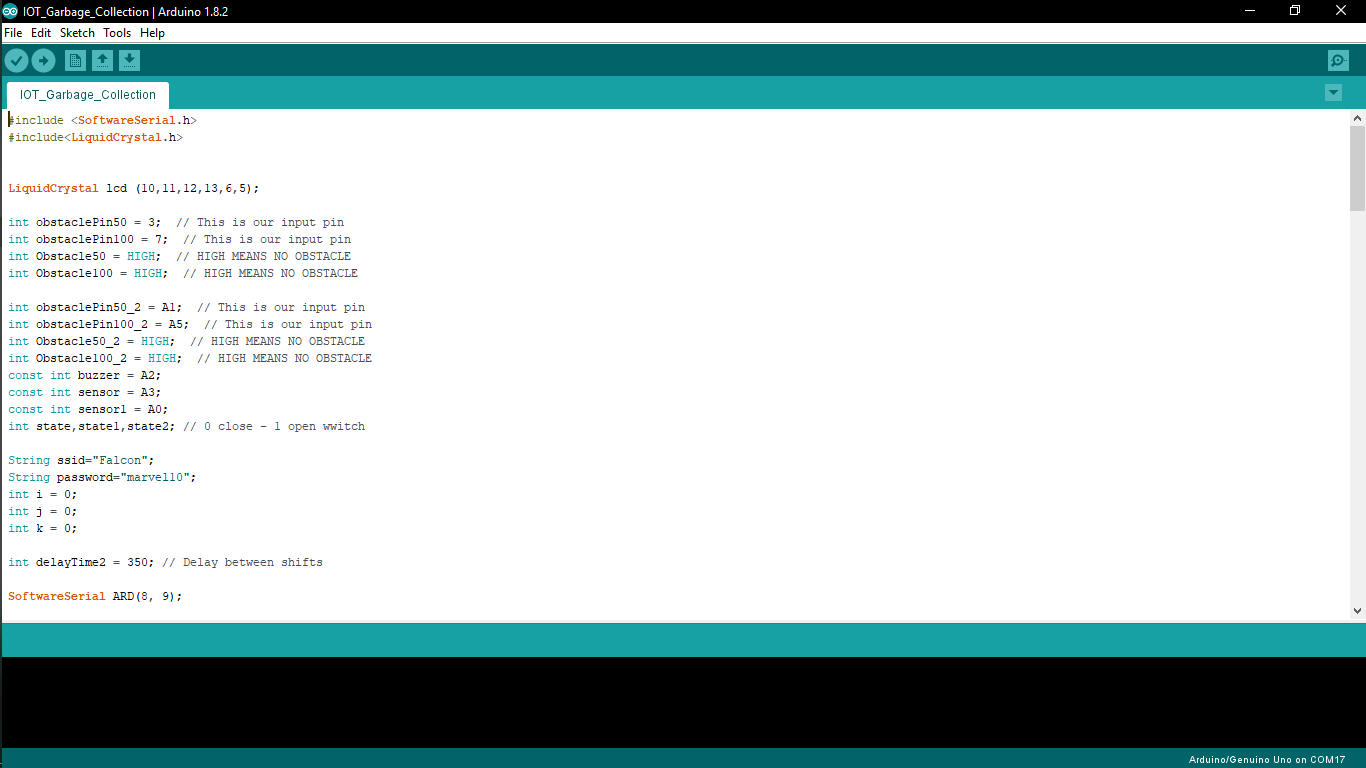
1. Place the USB connector in the Din Connector which is in-between of connector 1 and connector 2.
2. Now open the device manager, check out for comport.

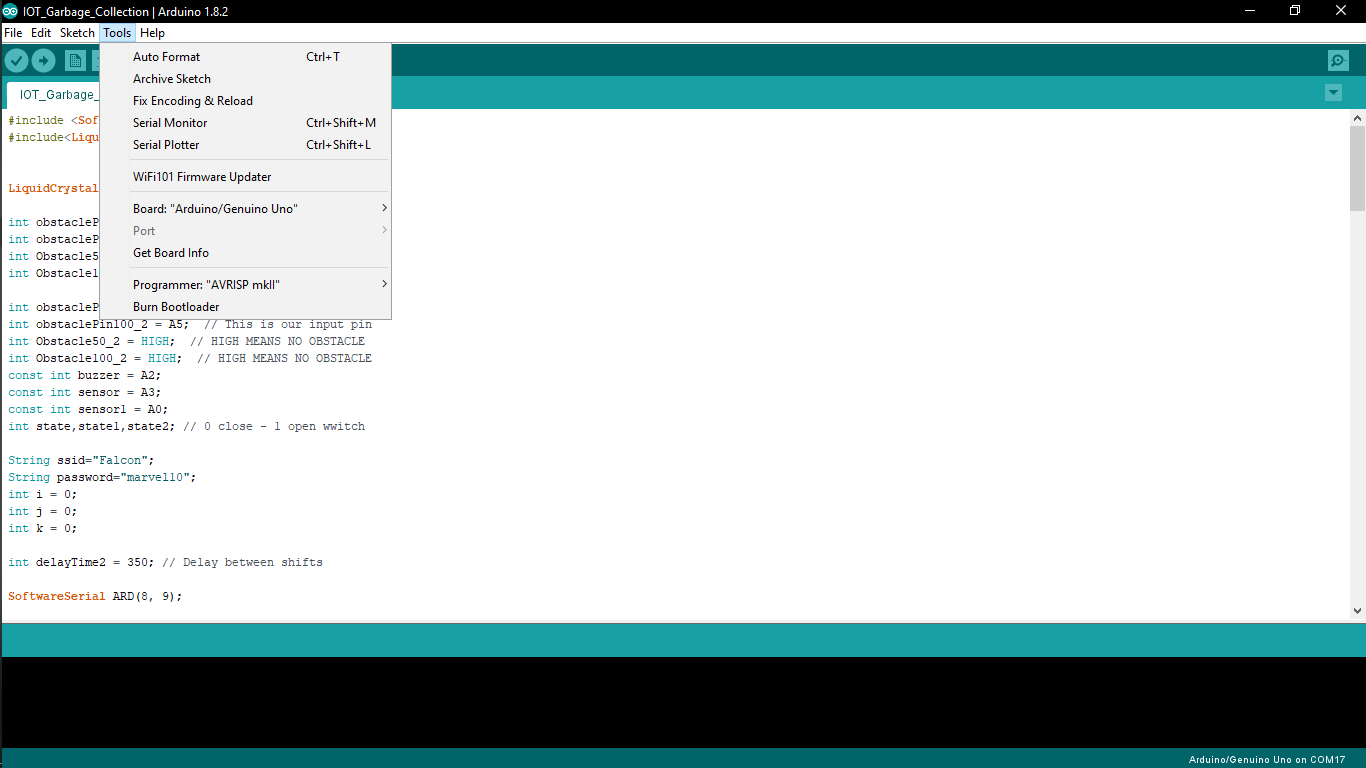


1. Now open the Arduino

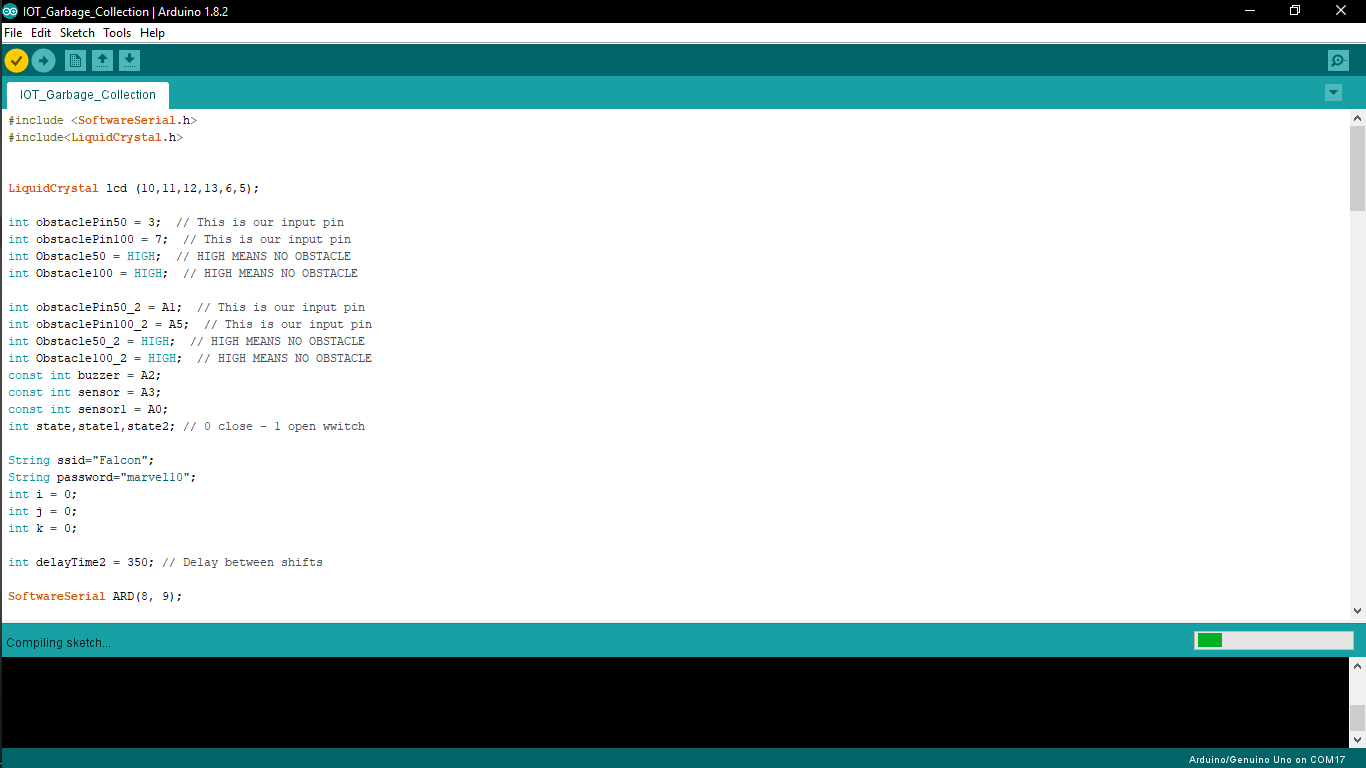


1. Go to tools

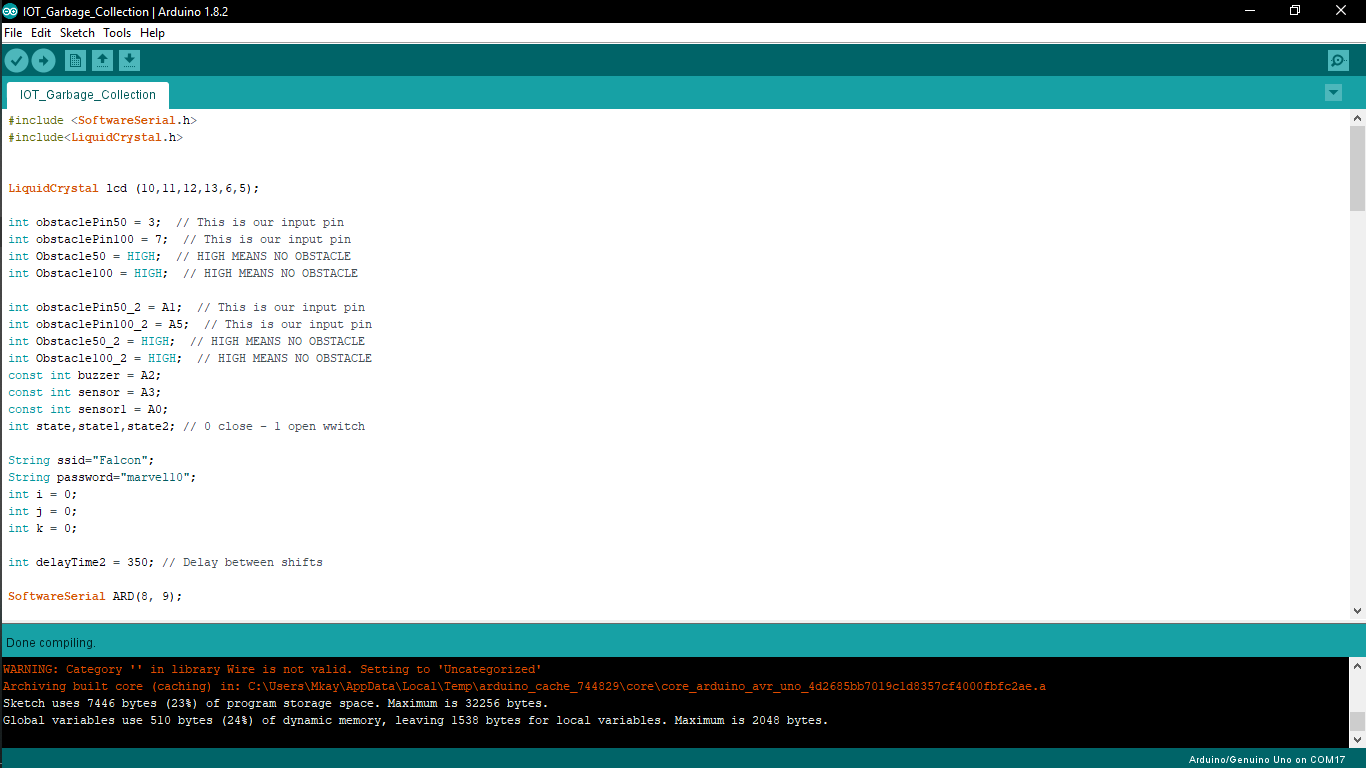




1. Now first compile your code by clicking on this icon as shown in fig.



1. If it shows done compiling in bottom of Arduino.



1. Now upload the code by clicking on this icon as shown in fig. and it shows done uploading when code is successfully uploaded

