How to upload Your Raspberry Pi Sensor Data to Thingspeak Website

Things needed:

1. Raspbeery Pi
2. Power Cable
3. Wifi adapter or LAN connection to Raspbeery Pi

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Step 1: Signup for Thingspeak

Go to **www.thinspeak.com**

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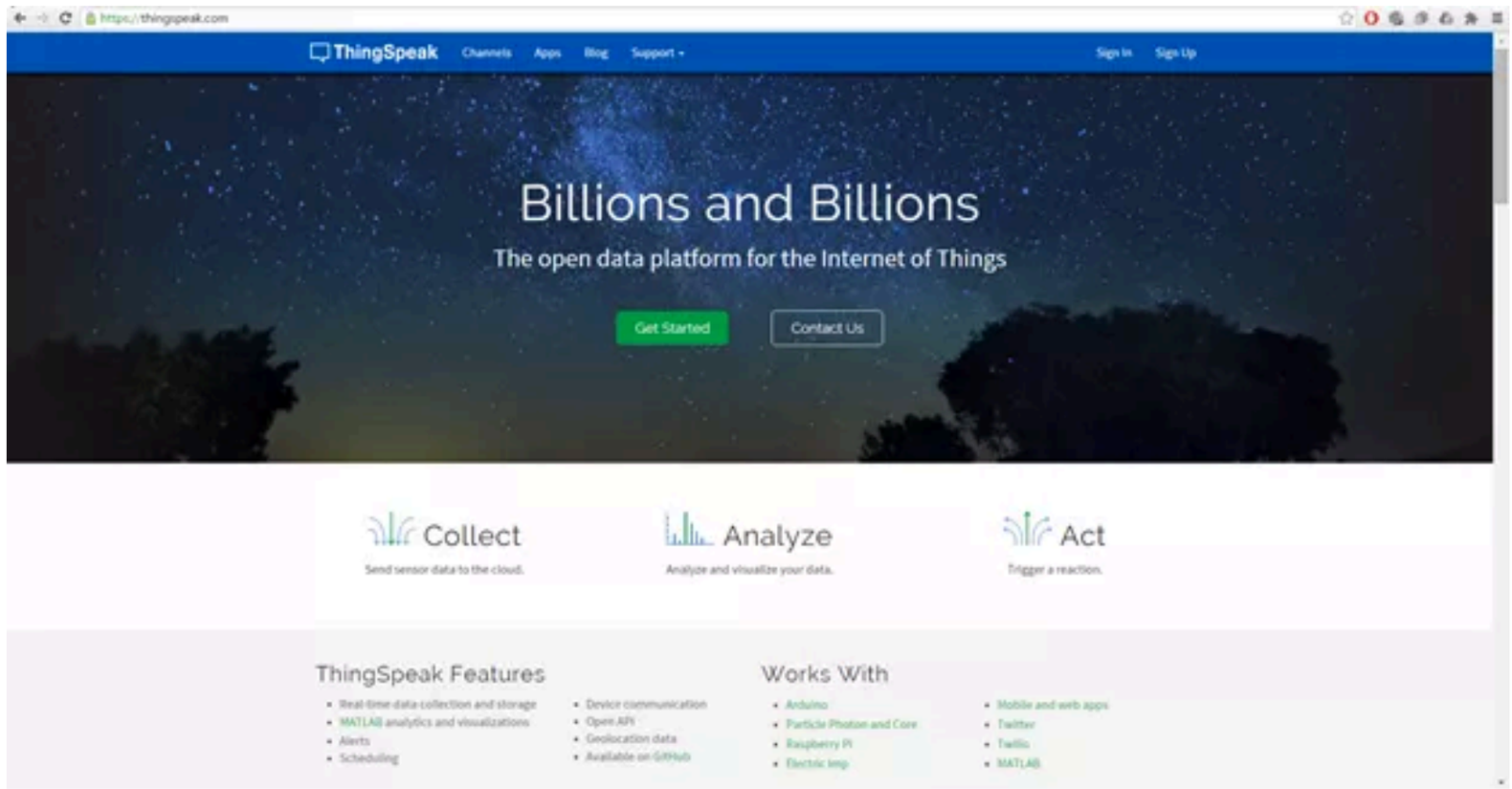
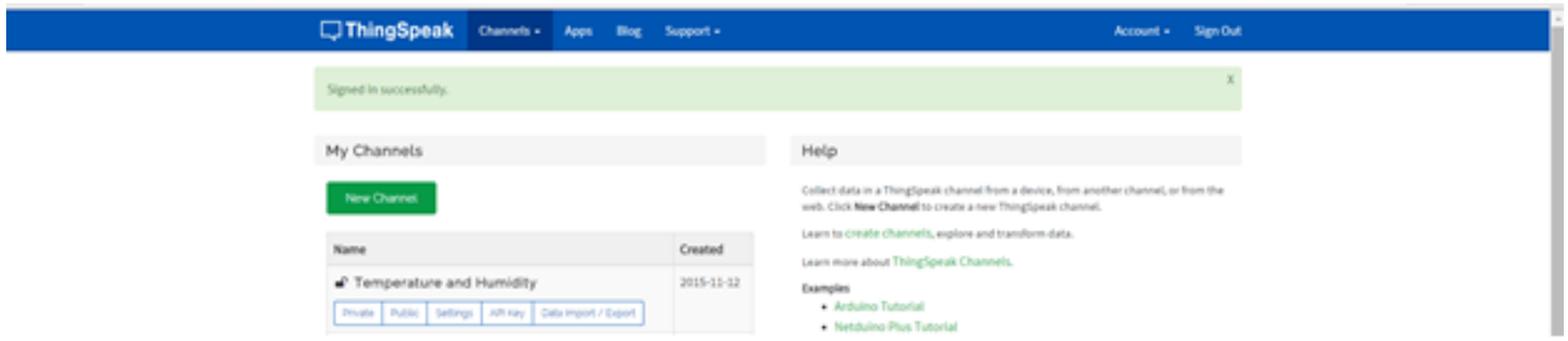


Click on “Sign Up” option and complete the details

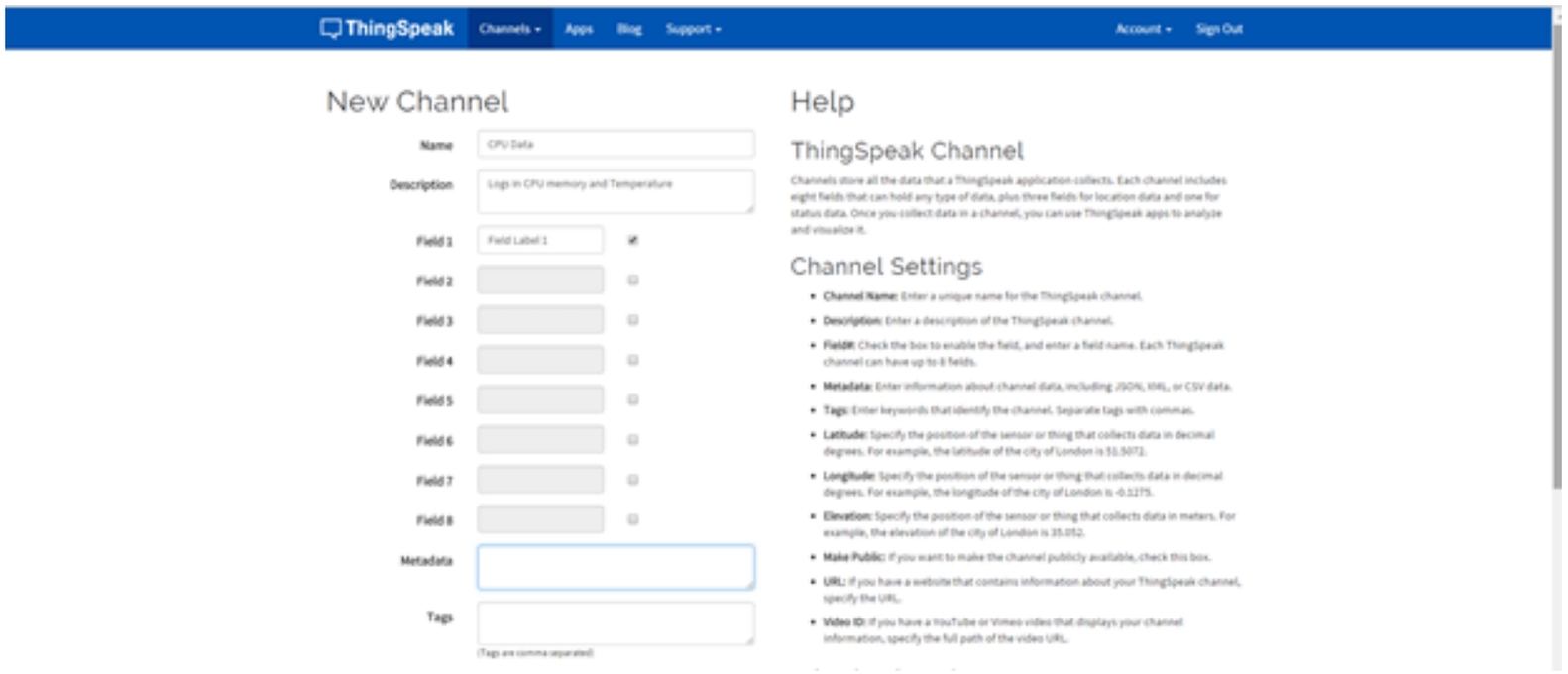
Step 2: Create a Channel for Your Data

Once you Sign in after your account activation, Create a new channel by clicking “New Channel” button



After the “New Channel” page loads, enter the Name and Description of the data you want to upload

You can enter the name of your data (ex: Temperature) in Field1. If you want more Fields you can check the box next to Field option and enter the corresponding name of your data.



Click on “Save Channel” button to save all of your settings.

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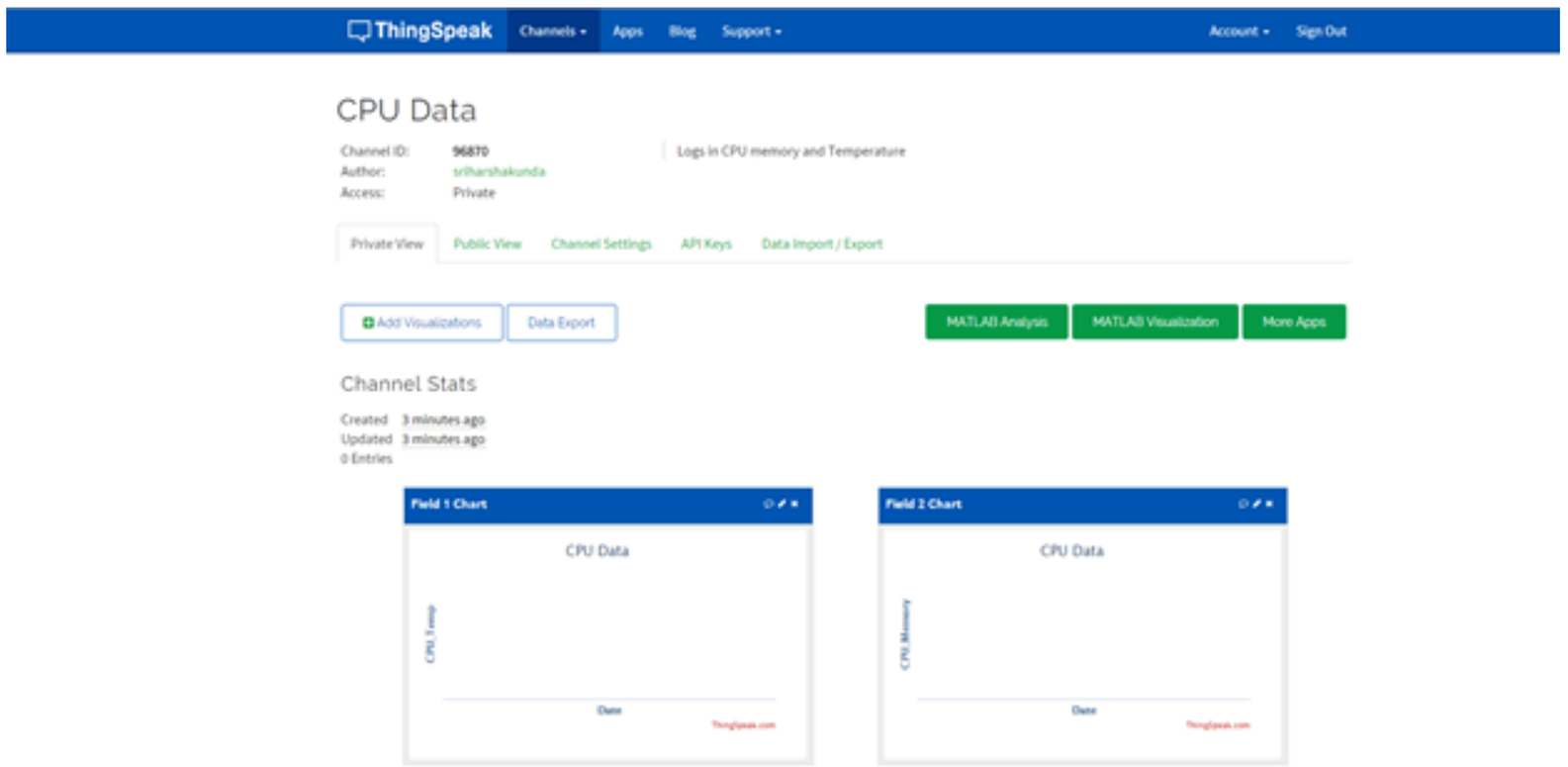
I created two Fields, one is CPU Memory and one for CPU Temperature



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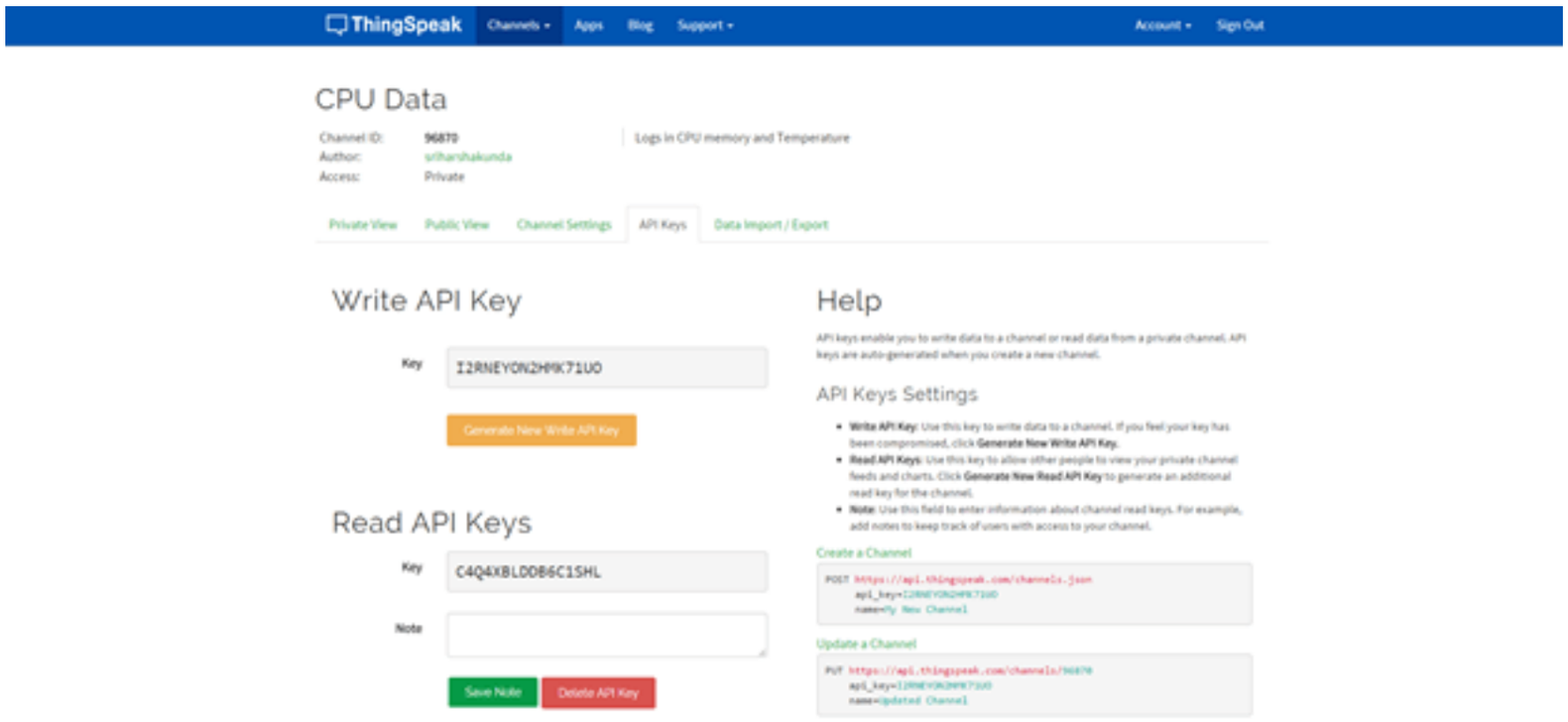
Step 3: Get an API Key

To upload our data, we need an API key, which we will later include in a piece of python code to upload our sensor data to Thingspeak Website.

Click on “API Keys” tab to get the key for uploading your sensor data.



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Step 4: Modifying the Python Code

Go to https://github.com/shairjev/iot/blob/master/CPU_Python.py

Download the code into your Raspberry Pi Home folder.

Open the CPU_Python.py file in a notepad.

Edit the line 19 by using **CPU_Temp** instead of **temp**.

Use your Write API Key to replace the **key** with your **API Key**

Save the file to overwrite changes

Step 5:

Assuming you have python 2.7 and proper python libraries, go to the folder where you copied the CPU_Python.py file

Type python2.7 CPU_Python.py file

If the code runs properly you should see “200 ok” and something like “58.30” (CPU temperature value)

In case if there are any errors uploading the data, you will receive “connection failed” message

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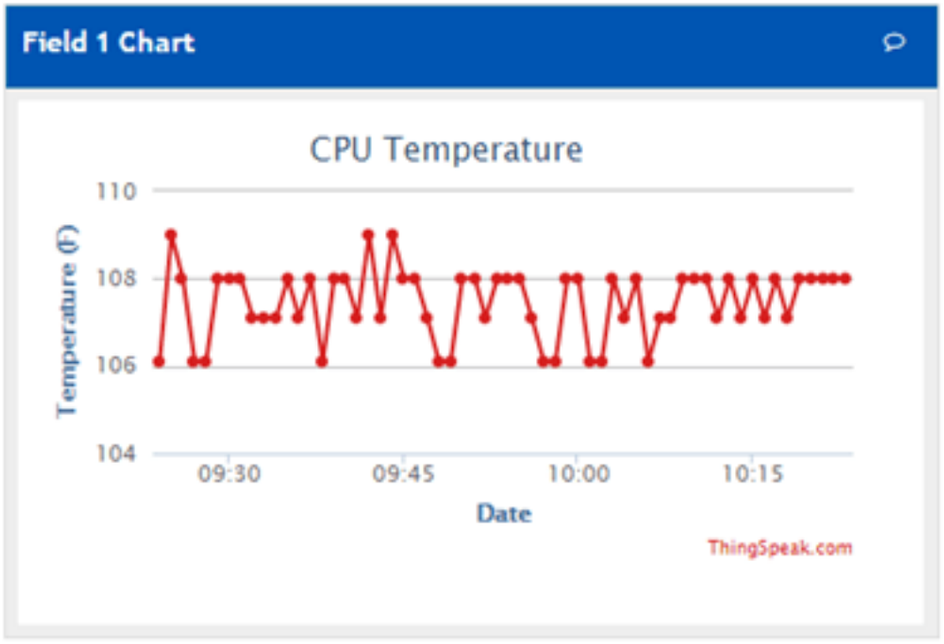
Step 6: Check Thinspeak API and Confirm data transfer

Open your channel and you should see the temperature uploading into thinspeak website.



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