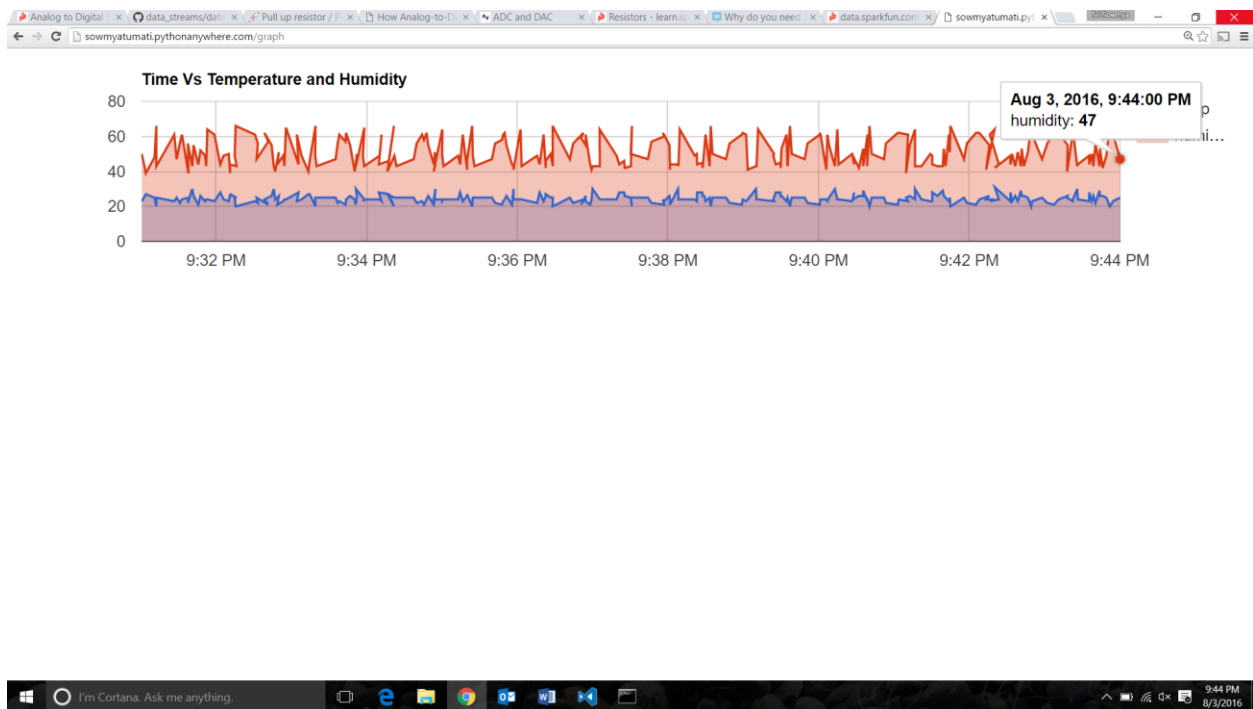


## Personal Project

- Extend the class activity project in some interesting way or
- Do an alternate data collection and presentation project

### **Starting of the project: Extend the class activity project in some interesting way**

1. As an extension to the class activity project, for the data in the class stream I have implemented a visualization in the form of a graph. The graph used here is “Areachart”. This chart is for comparison of temperature and humidity over time. This shows how temperature and humidity varies with time. The graph after an hour of streaming is as given below.

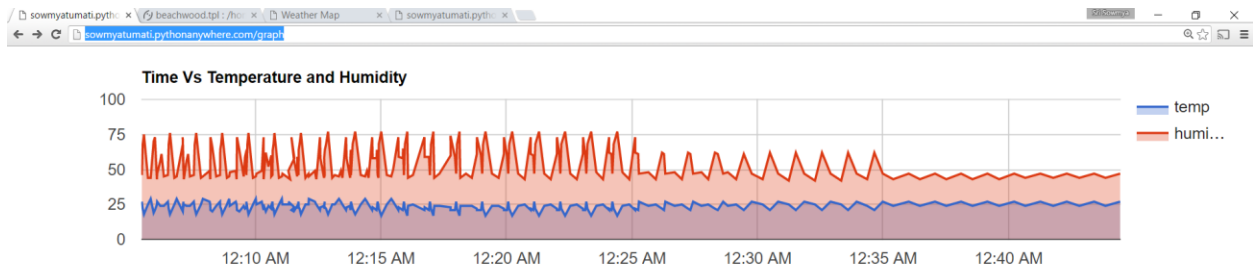


The blue line represents the temperature and the variations can be seen in the image. And the red line represents the humidity over a period of time.

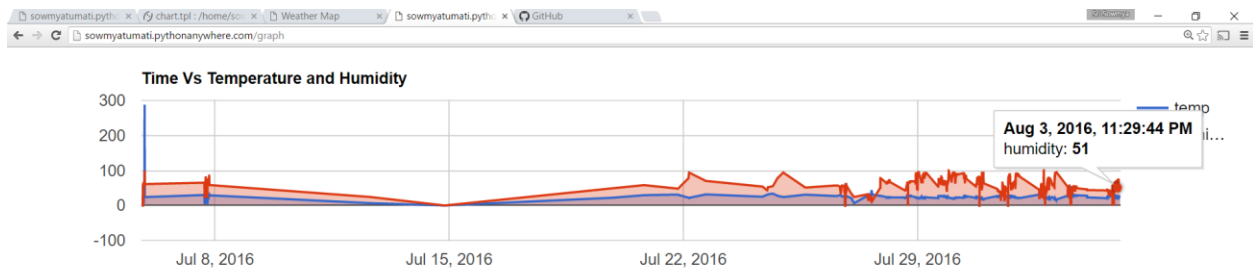
The next graph show after an hour at around 11pm and shows some other variations in temperature and humidity.



After the complete streaming is done into the class stream the graph has shown few other variations in it. With decreasing the up and down variations in the graph. The below image is the final graph for certain time period.



The final image shows the graph for complete data in the stream.



URL: <http://sowmyatumati.pythonanywhere.com/graph>

## 2. As an alternate data collection and representation:

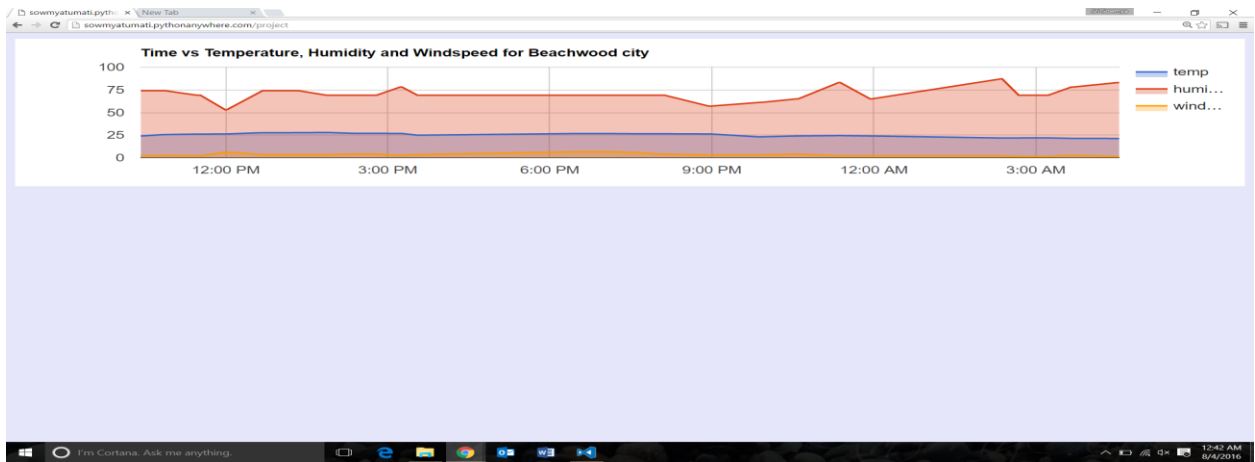
As another part of my individual project, I have streamed the weather data of a city in Ohio. The city is “Beachwood”. The streamed data consists of three attributes. They are “temperature”, “humidity” and “windspeed” of that particular city at that particular time. I have streamed this data into my personal stream and used this for my project. Streaming of weather has been done between 10:30am and 4:30am of next day. The chart used for this is Areachart.

The below image shows my personal data stream for streaming “Beachwood” city.

The screenshot shows a web application interface for 'Beachwood weather'. It features a table with four columns: humidity, temperature, timestamp, and windspeed. The data is being streamed from a sensor at London. The table shows a series of data points with timestamps ranging from 2016-07-30T08:32:42.164Z to 2016-07-30T07:39:43.713Z. The humidity values are mostly 83.000000, with some 78.000000 values. The temperature values are mostly 21.340000, with some 21.480000 values. The windspeed values are mostly 1.500000, with some 2.600000 values.

humidity	temperature	timestamp	windspeed
83.000000	21.340000	2016-07-30T08:32:42.164Z	1.500000
83.000000	21.340000	2016-07-30T08:32:29.619Z	1.500000
83.000000	21.340000	2016-07-30T08:32:16.590Z	1.500000
83.000000	21.340000	2016-07-30T08:32:05.540Z	1.500000
83.000000	21.340000	2016-07-30T08:31:55.215Z	1.500000
83.000000	21.340000	2016-07-30T08:31:44.018Z	1.500000
83.000000	21.340000	2016-07-30T08:31:32.470Z	1.500000
83.000000	21.340000	2016-07-30T08:31:21.284Z	1.500000
83.000000	21.340000	2016-07-30T08:31:10.548Z	1.500000
83.000000	21.340000	2016-07-30T08:31:00.212Z	1.500000
78.000000	21.480000	2016-07-30T07:41:03.431Z	2.600000
78.000000	21.480000	2016-07-30T07:40:52.667Z	2.600000
78.000000	21.480000	2016-07-30T07:40:40.767Z	2.600000
78.000000	21.480000	2016-07-30T07:40:28.064Z	2.600000
78.000000	21.480000	2016-07-30T07:40:16.890Z	2.600000
78.000000	21.480000	2016-07-30T07:40:05.588Z	2.600000
78.000000	21.480000	2016-07-30T07:39:54.357Z	2.600000
78.000000	21.480000	2016-07-30T07:39:43.713Z	2.600000

The below image shows the variation in temperature, humidity and windspeed in Beachwood city on July 29<sup>th</sup>, 2016



URL: <http://sowmyatumati.pythonanywhere.com/project>

Thank you.