**Extracting Data from JSON**

In this assignment you will write a Python program somewhat similar to <http://www.pythonlearn.com/code/json2.py>. The program will prompt for a URL, read the JSON data from that URL using **urllib** and then parse and extract the comment counts from the JSON data, compute the sum of the numbers in the file and enter the sum below:

We provide two files for this assignment. One is a sample file where we give you the sum for your testing and the other is the actual data you need to process for the assignment.

* Sample data: <http://python-data.dr-chuck.net/comments_42.json> (Sum=2553)
* Actual data: <http://python-data.dr-chuck.net/comments_184703.json> (Sum ends with 6)

You do not need to save these files to your folder since your program will read the data directly from the URL. **Note:** Each student will have a distinct data url for the assignment - so only use your own data url for analysis.

**Data Format**

The data consists of a number of names and comment counts in JSON as follows:

{

comments: [

{

name: "Matthias"

count: 97

},

{

name: "Geomer"

count: 97

}

...

]

}

The closest sample code that shows how to parse JSON and extract a list is [json2.py](http://www.pythonlearn.com/code/json2.py). You might also want to look at [geoxml.py](http://www.pythonlearn.com/code/geoxml.py) to see how to prompt for a URL and retrieve data from a URL.

**Calling a JSON API**

In this assignment you will write a Python program somewhat similar to <http://www.pythonlearn.com/code/geojson.py>. The program will prompt for a location, contact a web service and retrieve JSON for the web service and parse that data, and retrieve the first **place\_id** from the JSON. A place ID is a textual identifier that uniquely identifies a place as within Google Maps.

**API End Points**

To complete this assignment, you should use this API endpoint that has a static subset of the Google Data:

<http://python-data.dr-chuck.net/geojson>

This API uses the same parameters (sensor and address) as the Google API. This API also has no rate limit so you can test as often as you like. If you visit the URL with no parameters, you get a list of all of the address values which can be used with this API.

To call the API, you need to provide a **sensor=false** parameter and the address that you are requesting as the **address=** parameter that is properly URL encoded using the**urllib.urlencode()** fuction as shown in <http://www.pythonlearn.com/code/geojson.py>

**Test Data / Sample Execution**

You can test to see if your program is working with a location of "South Federal University" which will have a **place\_id** of "ChIJJ8oO7\_B\_bIcR2AlhC8nKlok".

$ python solution.py

Enter location: South Federal University

Retrieving http://...

Retrieved 2101 characters

Place id ChIJJ8oO7\_B\_bIcR2AlhC8nKlok