LastFMTagsExploratory

April 28, 2015

```
In [ ]: #How about a month metric?
        # Load and display details of the packaged datasets
        import urllib2
        import json
        import numpy as np
        import matplotlib.pyplot as plt
        from sklearn.linear_model import LinearRegression
        response_artists = urllib2.urlopen('http://ws.audioscrobbler.com/2.0/?method=chart.
                                           gettopartists&api_key=3fefe94153850a5c6b7ac1ca3a1a9096&forma
        data_artists = json.loads(response_artists) # "loads UTF decoded text above
          # into Python
        raw_artists= data_artists['artists']['artist']
        #creates three arrays of 1 dimension, all with the indexes lined up. Do analysis off
            #this
        name = range(1000)
        listeners = range(1000)
       playcount = range(1000)
        counter = 0
        for artist in raw_artists:
            name[counter] = artist['name'] #array index O is value, in list index O is key&value
            listeners[counter] = artist['listeners'] # [] signifies the index position
           playcount[counter] = artist['playcount']
           # print(artist["name"]+" "+artist["listeners"] ) #with artist list open, prints name within
            counter+= 1 #counter= counter + 1
        #Different x-y correlation metrics
        N = 1000
        colors = np.random.rand(N)
        area = np.pi * (15 * np.random.rand(N))**2 # 0 to 15 point radiuses
        plt.scatter(playcount, listeners, s=area, c=colors, alpha=0.1)
       plt.xlabel('listeners')
       plt.ylabel('playcount')
       plt.show()
       N=1000
        colors = np.random.rand(N)
        area = np.pi * (15 * np.random.rand(N))**2
        plt.scatter(playcount, listeners, s=area, c=colors, alpha=0.1)
        plt.xlabel('name')
       plt.ylabel('listeners')
        plt.show()
```

```
N=1000
colors = np.random.rand(N)
area = np.pi * (15 * np.random.rand(N))**2 #
plt.scatter(playcount, listeners, s=area, c=colors, alpha=0.1)
plt.xlabel('name')
plt.ylabel('listeners')
plt.show()

N=1000
colors = np.random.rand(N)
area = np.pi * (15 * np.random.rand(N))**2
plt.scatter(playcount, listeners, s=area, c=colors, alpha=0.1)
plt.xlabel('name')
plt.ylabel('playcount')
plt.show()
```