**Project 3 - Rave On**

Alpha due 9th November, 9 PM

Final due 30th November, 9 PM

**Focus:** Visualizing interconnected networks of information. Focus more on database and statistical work with data, and interacting with an online database.

**Description:**

In this project we are going to take a look at data about musicians and music genres for the last 100 years or so. This application will also allow multiple users to interact at the same time and look for patterns, commonalities, and outliers in the aggregation.

**Data:** Echo nest API - [http://developer.echonest.com/docs/v4/index.html#overview](http://developer.echonest.com/docs/v4/index.html%23overview)

**Deliverables:**

Each Friday, post on contribution page.

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| **Web Pages** | | | | |
| Contribution page |  |  |  |  |
| How to use your application and the things you can do with it. | Data you used including where you got it, what you did to it. | Source code and any instructions necessary to install and run it. | Interesting things you found using your application. | Roles of the different team members. |
| YouTube video | Credits |  |  |  |

Send 1920 x 540 image of viz named p3.<group\_number>.jpg.

Send individual team rating after project completion.

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| **C** | **B** | **A** |
| Divide the wall up into 3 parts - two individual sections so two users can interact independently, and one shared section.  Shared section will show data temporally, geographically, and as a linked network.  Should start by showing three overview visualizations:  1. A timeline showing the top 10 ranked genres for each decade so the user can see the relative popularity (or hotttness in the case of echo) of genres over time, new ones appearing and coming to prominence, those that disappear.  2. The top 10 artists for each decade, what genre(s) each of them belongs to, and where they come from on a map so the user can see if particular places create artists in particular genres. Pan/zoom/reset.  3. Link all of the artists (the union of all the top 10 from each decade) through a force directed graph based on similarity (note that there may be clusters that do not connect to each other). You should also allow the user to view the primary genre of each artist in the force directed graph to see how the genres relate to each other.  A user in any of the two individual sections should be able to choose a genre or a decade or an artist to highlight that particular information across all of the views in the shared section (i.e. if you choose a genre you should see all of the artists and places related to that genre highlighted that are currently shown in the visualizations).  Pre-process the data in the database. | Interactive. Focus on artists. Based on user input and interactive queries to the online database.  Each user should start out with an empty personal list of artists and an interface to let them search for artists either by name, or by decade, or by genre, and then add that artist to their personal list which will automatically add the artist to the current global view. When an artist is added, that artist should appear in the timeline (note that some bands break up and come back together repeatedly), on the map, and in the force directed network graph. Each user should be able to add at least 10 different artists to the mix. Users should also be able to delete one or all of their chosen artists.  When a user selects an artist the interface should bring up a list of related artists to make it easy for the user to add related artists to the visualization.  Each user should be able to color code their entries in the three different views so the two different users can see if they have overlapping or very divergent interests, or the users should be able to color the data by genre in the three visualizations.  Use your interface to show and investigate some personal, quirky, genres or artists of your choice. | Focus on genres.  Each user should be able to choose a series of genres from a list of all the genres in their personal interfaces and see each genre appear in the timeline, and show the top artists/bands in that genre on the timeline, map, and force directed graph. This allows each user to compare their genres to each other and to the genres of the other user. Users should also be able to delete one or all of their chosen genres.  Each user should also be able to search for an artist, see which genres they belong to and select the genre that way  Each user should also be able to filter genres by decade, and show them both alphabetically, and by hotttness and select the genre that way  The genre view of the A range should integrate nicely with the artist view of the B range. |