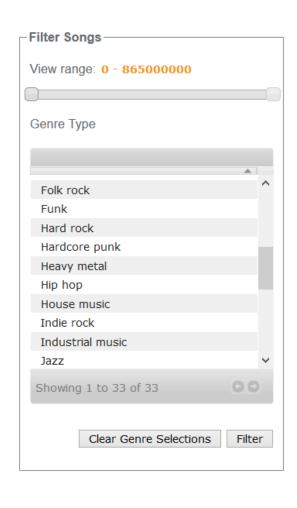


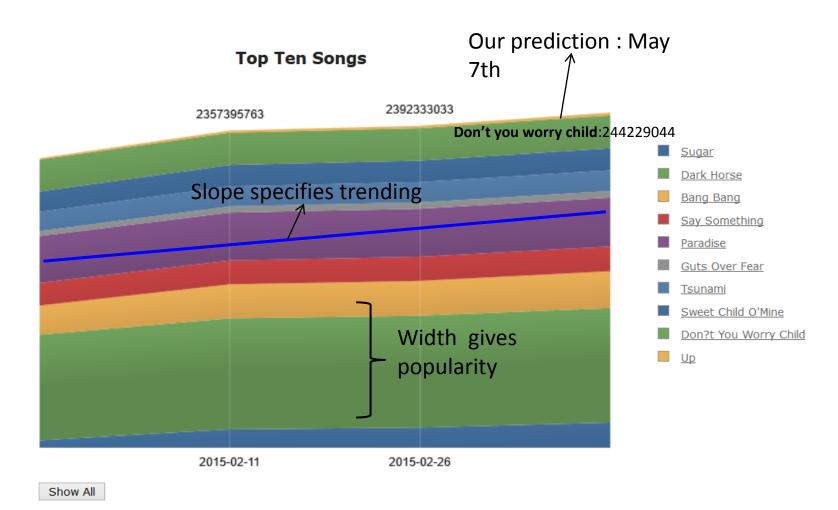
{Music Analytics}

URL: discover-music.appspot.com

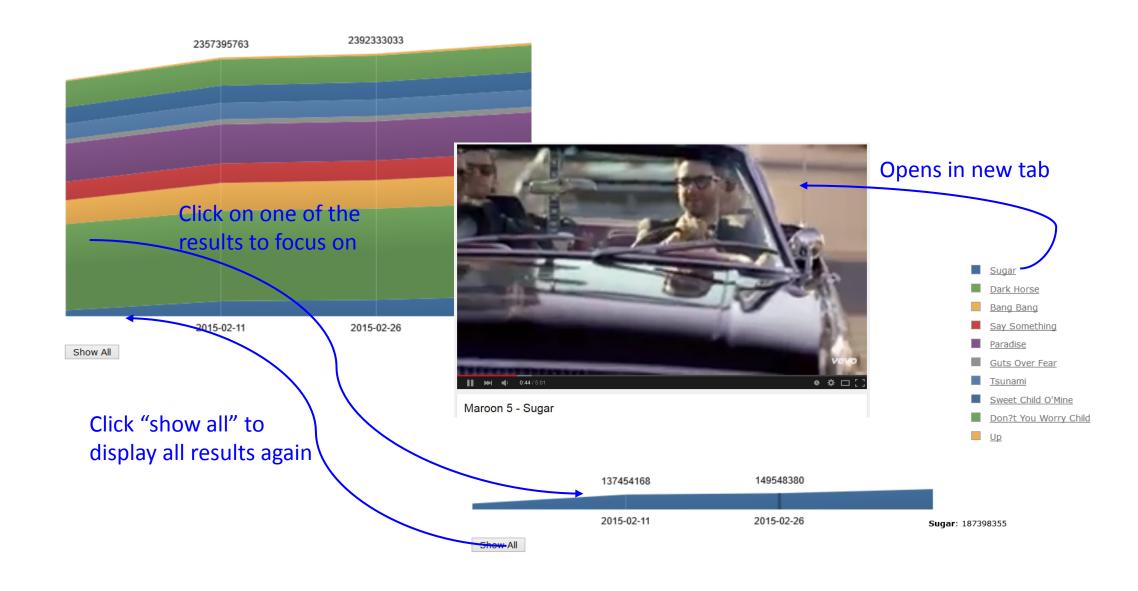
Tugba Kulahcioglu Sachin Srivastava

Popularity Prediction: Predict the Top 10 songs

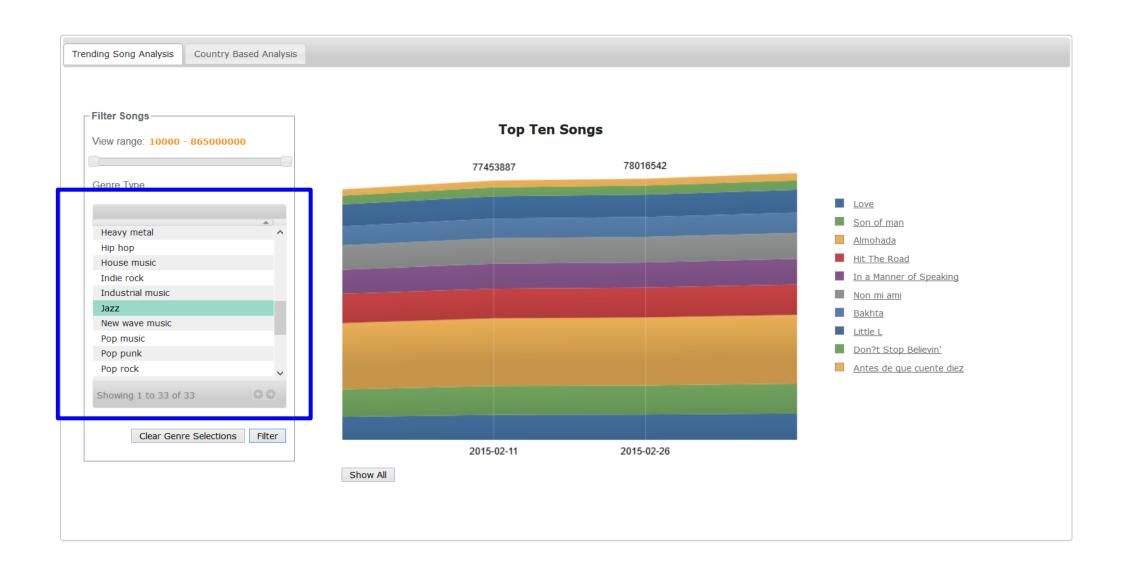




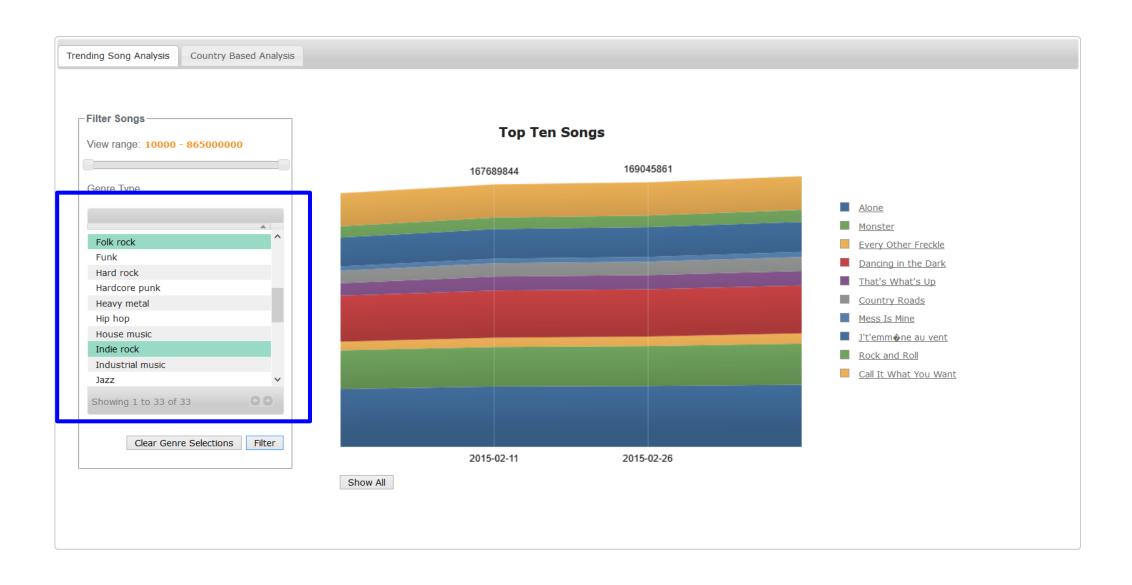
Select to listen to the top songs



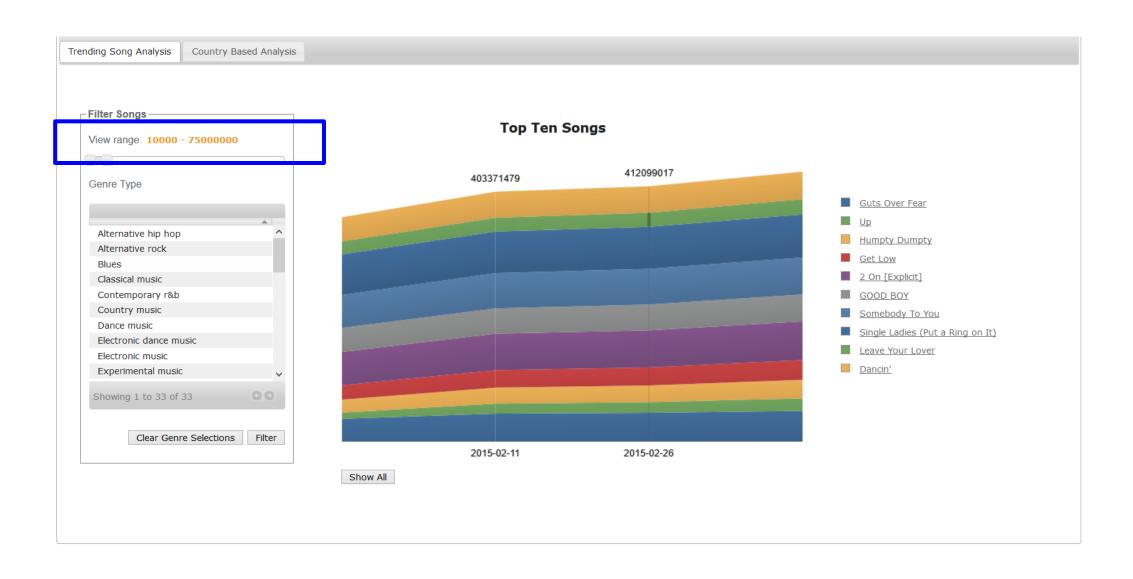
Select your favorite Genre



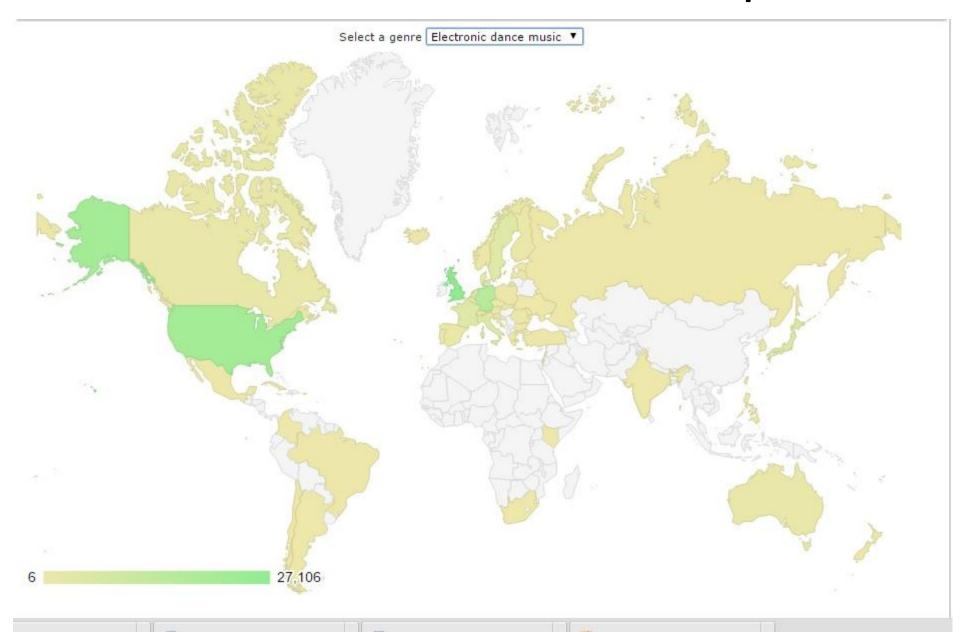
Select Multiple Genres



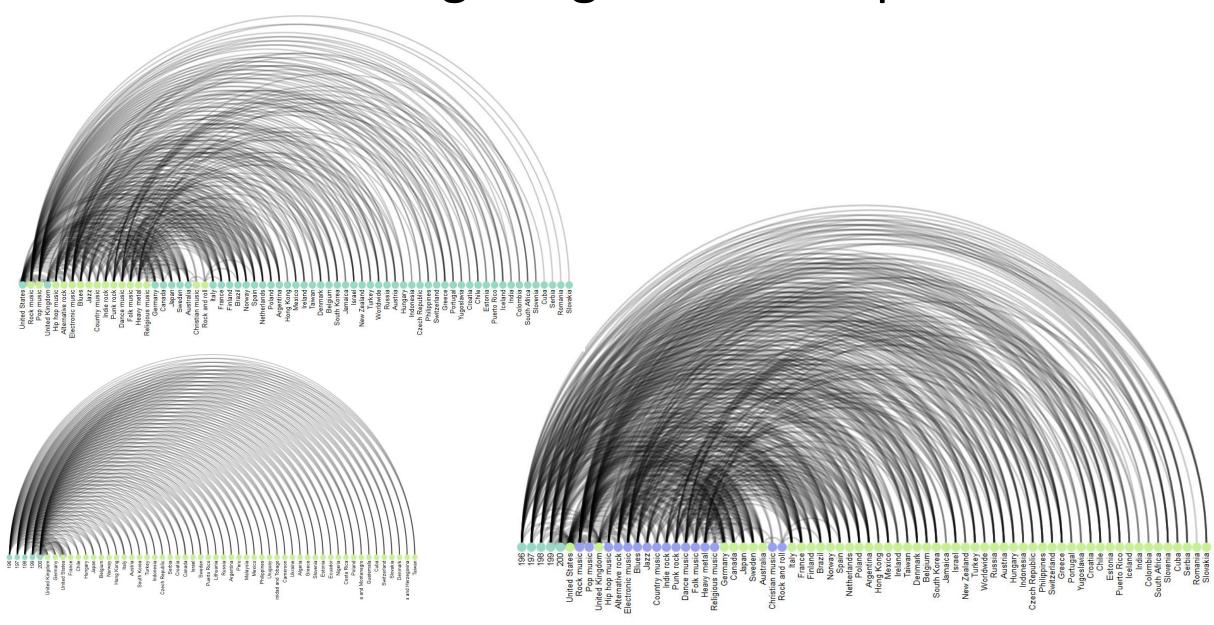
Filter by overall Popularity



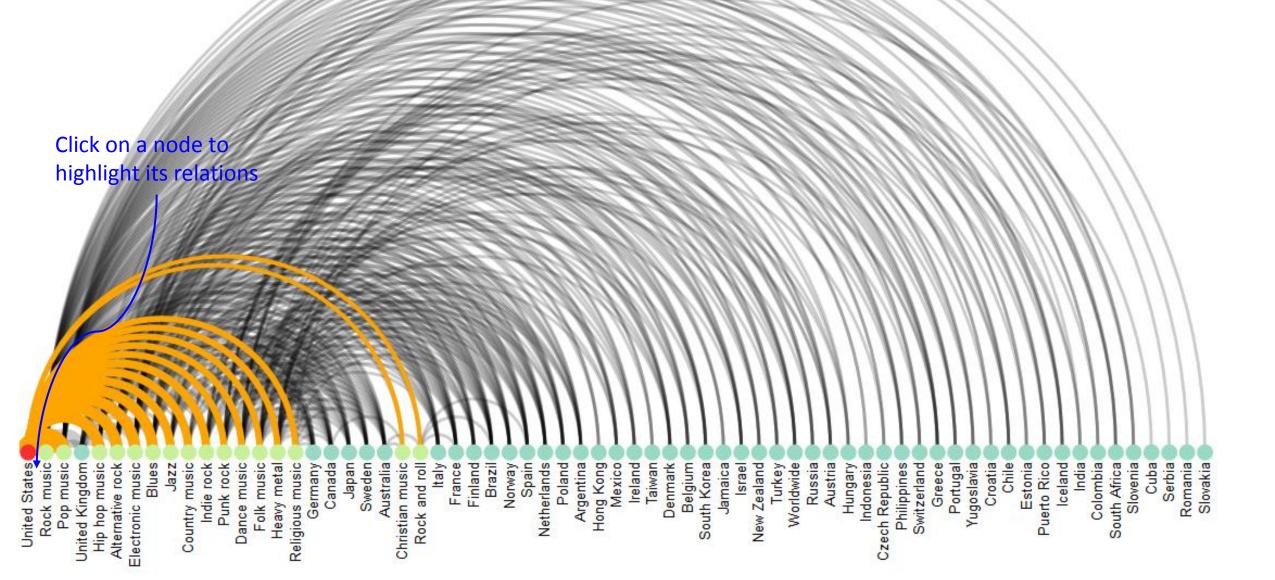
World Music Heat Map

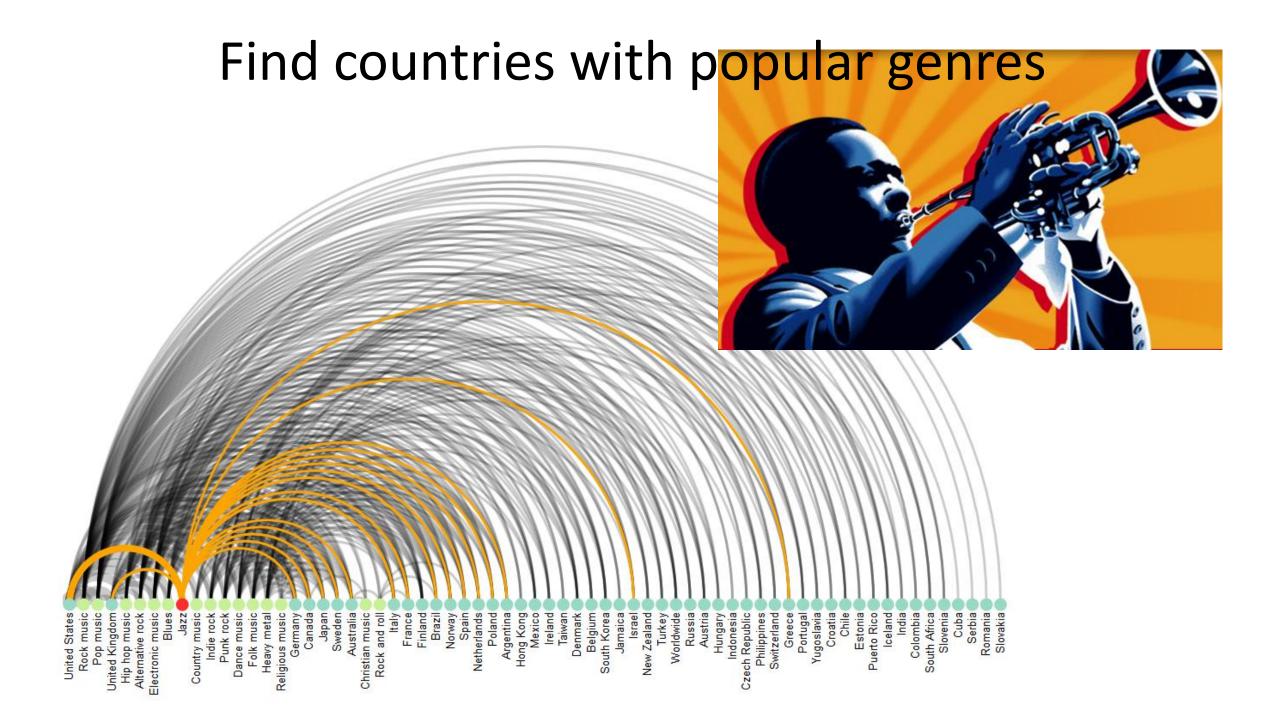


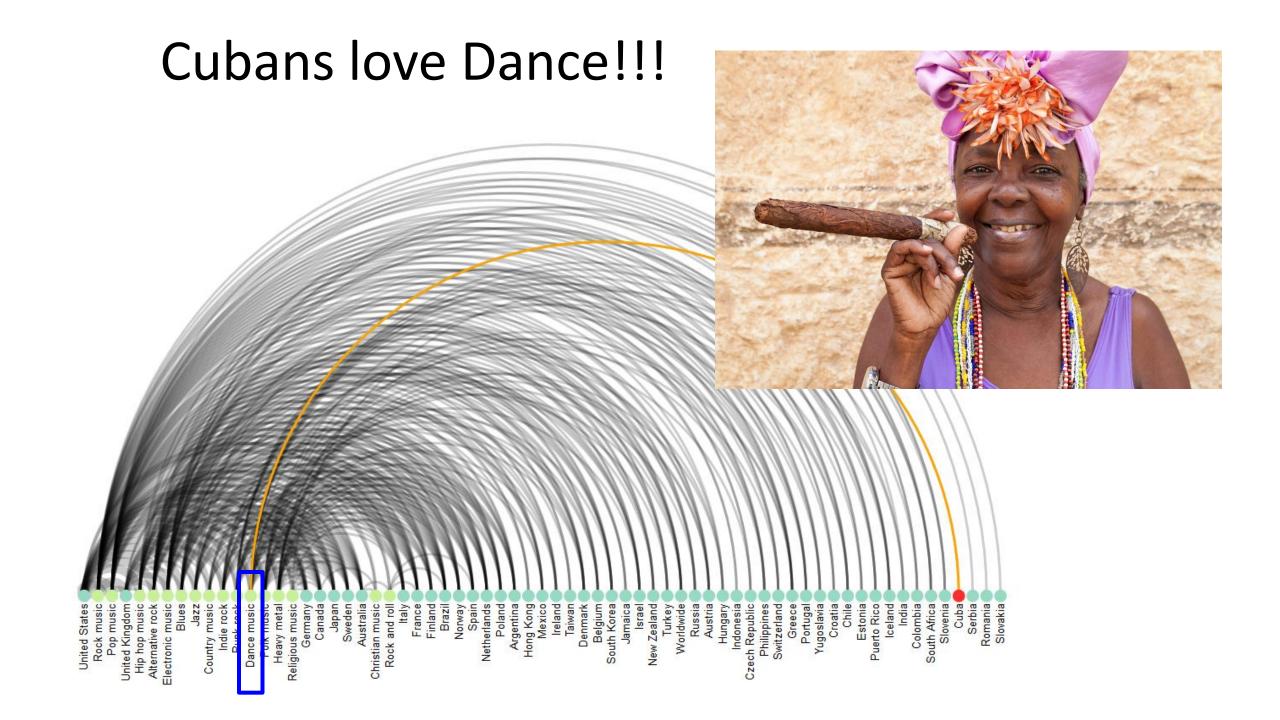
Finding Song Relationships



Find popular genres in different countries







Rock it... Sweden Australia Sweden Australia Rock and roll Rock and roll Razil Norway Spain Norherlands Poland Argentina Hong Kong Mexico Ireland Taiwan Denmark Belgium South Korea Jamaica Israel New Zealand Turkey Worldwide Russia Austria South Korea Jamaica Israel New Zealand Turkey Vorldwide Russia Austria South Korea Jamaica Israel New Zealand Turkey Colomaia Colombia South Affica South Affica Slowenia Colombia South Affica South Affica South Affica South Affica South Affica Country music Indie rock Punk rock Dance music Folk music Heavy metal Religious music Germany Canada United Kingdom Hip hop music Alternative rock Electronic music

Implementation and Enhancements

- Backend engine based on Linear Regression.
- Some of the API's used:
 - Protovis Vis. Lib. http://mbostock.github.io/protovis/
 - Infovis Vis. Lib. http://philogb.github.io/jit/
 - Jquery UI Vis.Lab. https://jqueryui.com/
 - Apache Commons Math Lib.
 http://commons.apache.org/proper/commons-math/javadocs/api-3.5/index.html
- More user friendly implementation of Trending songs Interface.
- On the fly view prediction based on dates.
- Quadratic function for song prediction.

Difficulties

Technical Challenge

- Deploying google app engine and integrating our code and database was complicated.
- Using different visualization API's and integrating to data format.

Database Challenge

- Doing prediction for huge database which was had missing and unknown values was a challenge.
- On the fly querying sql and creating data patterns.