**Scope of Work and Preliminary EDA Agenda**

AC209a Project Group 21 - Project D (Spotify Playlist Generation)

Team Members: Matthew Finney, Kaivalya Rawal, Royce Yap, David Zheng

**Team Meetings and Communication with TF**

* The team has met as a group several times, most recently on October 23, 2019.
* The team has reached out to our assigned TF Alex Yu, and has received his review of a draft of this Milestone 2 document. The team is working to schedule time with Alex to meet in person in the lead up to the Milestone 3 deadline.
* The team will continue to meet in person on a regular schedule on Wednesday afternoons, and will schedule ad hoc meetings as necessary.

**Project Goal (from Official Project Statement)**

Automatic Playlist Generation - create a model for song discovery on the basis of the base playlist and user/context information that might be important to the quality of the playlist. Some of user/context information might include intent, emotion, location, playlist "purpose" (driving/road trip, studying, etc). Use the developed model(s) for automatic playlist generation.

**Question**

Based on a base playlist and user/context information, how can we generate song recommendations that are complementary to the base playlist.

**Proposed Measures of Success[[1]](#footnote-0)**

We propose selecting our model based on the following metrics:

|  |  |  |
| --- | --- | --- |
| **Metric** | **Description** | **Objective** |
| **R-precision** | Number of known relevant songs recommended by the model divided by the total number of known relevant songs in the test playlist data | Measure hit rate of relevant recommendations |
| **Relative Rank of Recommendations (R3)** | An index that measures the relative placement of relevant songs (e.g., from the test set) among the total list of songs recommended by the model. | Measure quality of recommendations |

However, with these metrics, we don’t know how much faith to put in the ground truth of the test set. For example, consider the scenario that our model recommends songs that the user would like better than the test set. As the project progresses, we will consider additional metrics to judge our recommended songs.

**Milestone 3 (Exploratory Data Analysis) Workplan**

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| --- | --- | --- |
| **Task** | **Primary Responsible** | **Due Date** |
| Identify Data Sources | David, Royce | October 23 |
| Write EDA Strategy | Matthew, Kaivalya | October 25 |
| Gather Data | David, Royce | October 25 |
| Write description of data for Milestone 3 (based on individual EDa assignment) | Matthew, Kaivalya, Royce, David | October 30 |
| Complete individual data cleaning and EDA assignments | Matthew, Kaivalya, Royce, David | November 11 |
| Summarize individual EDA findings | Matthew, Kaivalya, Royce, David | November 11 |
| Write refined question based on EDA findings | Kaivalya | November 15 |
| Compile initial draft of Milestone 3 submission | Matthew | November 15 |
| Create baseline model | Kaivalya, David, Royce | November 18 |
| Compile final version of Milestone 3 and submit to Canvas | Matthew | November 20 |

1. Adapted from <https://recsys-challenge.spotify.com/rules> [↑](#footnote-ref-0)