University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: _1_

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Group Number: _34_

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Milestone 1

2. Description

2.a What is the domain of the application?

Our project aims to develop a social platform that enables users to share their personal tastes in music and to critique music. A user will be able to rate existing albums or tracks from various artists, curate their own charts of artists, songs, or albums that appear on followers feeds. Every song, album, and chart will have a rating out of 5.

2.b What aspects of the domain are modeled by the database?

Our database will store all information related to users. This includes all the users ratings of song and albums, their personal charts, the users they follow and users who follow them. Additionally, the meta data of every music object such as an album or song will stored. This includes details such as the artists, producers, audio engineers, writers, and etc for a given piece of music. We are including the ranking of users personal music preferences through user charts. These are personally curated charts by the user to rank their music based on the criteria they choose. For example, a user could make a user chart called "The top 10 Rap Albums of All Time" which would have the users subjective rank on the top 10 rap albums of all time. A user chart can either a ranking of artists or albums. Other users will be able to review user charts. The project aims to be a comprehensive user experience in the world of music, allowoing users to manage, critique and discover music.

3. Database Specificiations

3.a What functionality will the database provide?

Since our database will store essentially all rating and user information for the application, the review aggregation functionality will depend on the database. The weighted average score of each song/album will be sourced from the database, as well as full text reviews. User information will also be used to provide a "taste similarity" score between users. Everything that appears on a users feed will be sourced from the database, as well as the content for personalized recommendations and tier lists

4. Description of the application platform

4.a What database will your project use?

We plan on using MySQL.

4.b What is your expected application technology stack?

The frontend will be written in Typescript using a framework like BootstrapVueNext, with the backend also in Typescript using Nest.js. We plan on using MySQL as the database, and TypeORM to help link it to our TypeScript app. We plan on using Git and Github to manage collaboration and progress.

5. ER Diagram

see next page.

Entity-Relationship Diagram

Artist
- description
- birthdate
- Name
- genre
- ID (key)
- Label

Creates (Artist — Album)

Album
- Duration
- # of songs
- Cover
- genre
- isSingle?
- Title
- Release Date
- ID (key)

includes (Album — Song)

Creates (Artist — Song)

Song
- ID (key)
- Duration
- Name
- genre

includes (Album — User Charts)

IsGivenA — Rating (Album)

includes — Number

User Charts
- ID (key)
- Name

IsGivenA (User Charts — Review)

Review
- ID (key)
- Likes
- date
- Text

IsGivenA — Rating (Song — Review)

Generates (User Charts — User)

Gives (Review — User)

Contains (Review — Comments)

Leaves (User — Comments)

Comments
- date
- Text
- Likes

User
- Name
- ID (key)
- password
- Username

follower

is followed by

isFollowerOf — follow date

ISA

Critic
- website
- position
- platform