University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: 1

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Group Number: 25

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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.

Project Topic & Description

Our project reflects and models streaming platforms in the music industry such as Spotify, Apple Music, or YouTube Music. Our database will allow companies to view and manage interactions between users, releases, artists, and song distributors in their streaming service.

Database Specifications

The database will allow entry and retrieval of data required to run a basic streaming service. It will handle payments and subscriptions, track releases, and monitor user activity. Possible use-cases for the system could be:

- Providing payments to artists and distributors according to play count and with a specified revenue split
- Looking up all features or releases by a certain artist
- Enabling a personalized library for each user, which includes “liking” songs, adding songs to libraries, etc.
- Keeping track of user subscriptions and limiting access to service features depending on the subscription tier
- Provide artist statistics to users and distributors (most downloaded, most liked, present in most playlists, etc.)

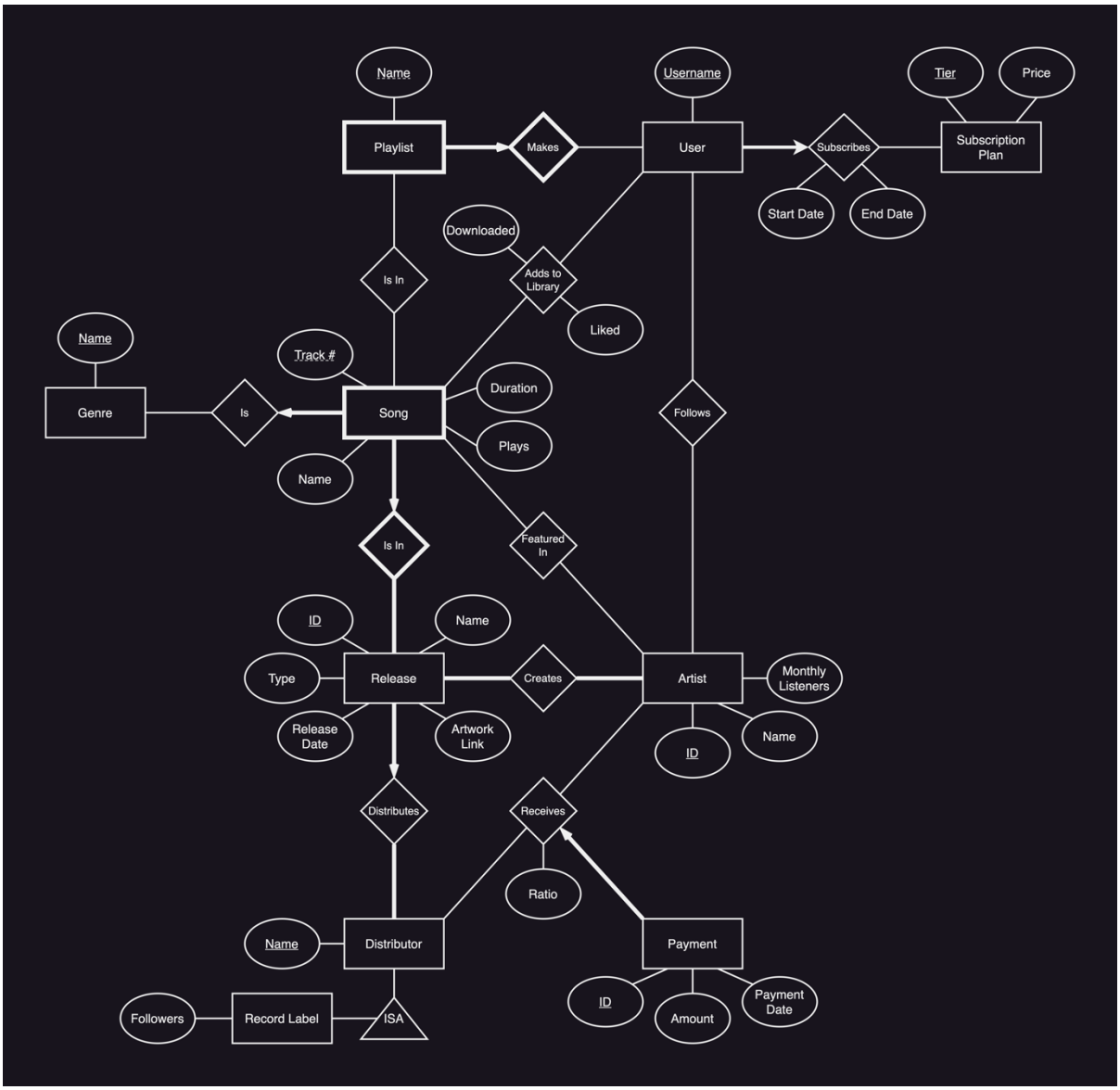
Application Platform

Our project will consist of a database and a Java instance for simple handling of GUI and backend functionality. We will use Oracle and JDBC to manage our database to allow full integration with Java and compatibility with the course. Additionally, the application's user interface will be built with Swing using our previous experience with the library.

Additional Comments

Although our database may appear similar to the blacklisted MP3 storage system, there are some key differences. For instance, our database does not only focus on songs, but interactions between distributors, users, and artists as well. Many of the elements of our model— such as subscription plans, payments, saving songs in user libraries, and tracking relationships between music distributors, artists, and songs— are exclusive and beneficial to streaming services.

ER Diagram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