CPSC 304 Project Cover Page

Milestone #1

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Group Number: 32

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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

Brief Project Description

The domain of our project is a music management platform. We will build a comprehensive application for our users to listen to songs they like, create customized playlists, search information about artists, as well as seek related merchandise and manage music live events. Our database will focus on artists and their works. This includes artists' information like names, ages, biographies, record labels as well as their released discographies, including albums and songs. In addition to this, the platform will keep track of the dates, times and venues of artists' live events and the names and prices of merchandise sold by artists. Information about listeners and playlists they created will also be modeled.

Database Specifications

Our database application has two different types of users: artists and listeners. Each user signed up is uniquely identified with a userID, and users can quickly log in to their account using their email and password.

Listeners can search for an artist, a song or an album by name, accessing their information, such as artist biography, artist discography, song genre and album release date, and they can also create customized playlists according to their interests and needs.

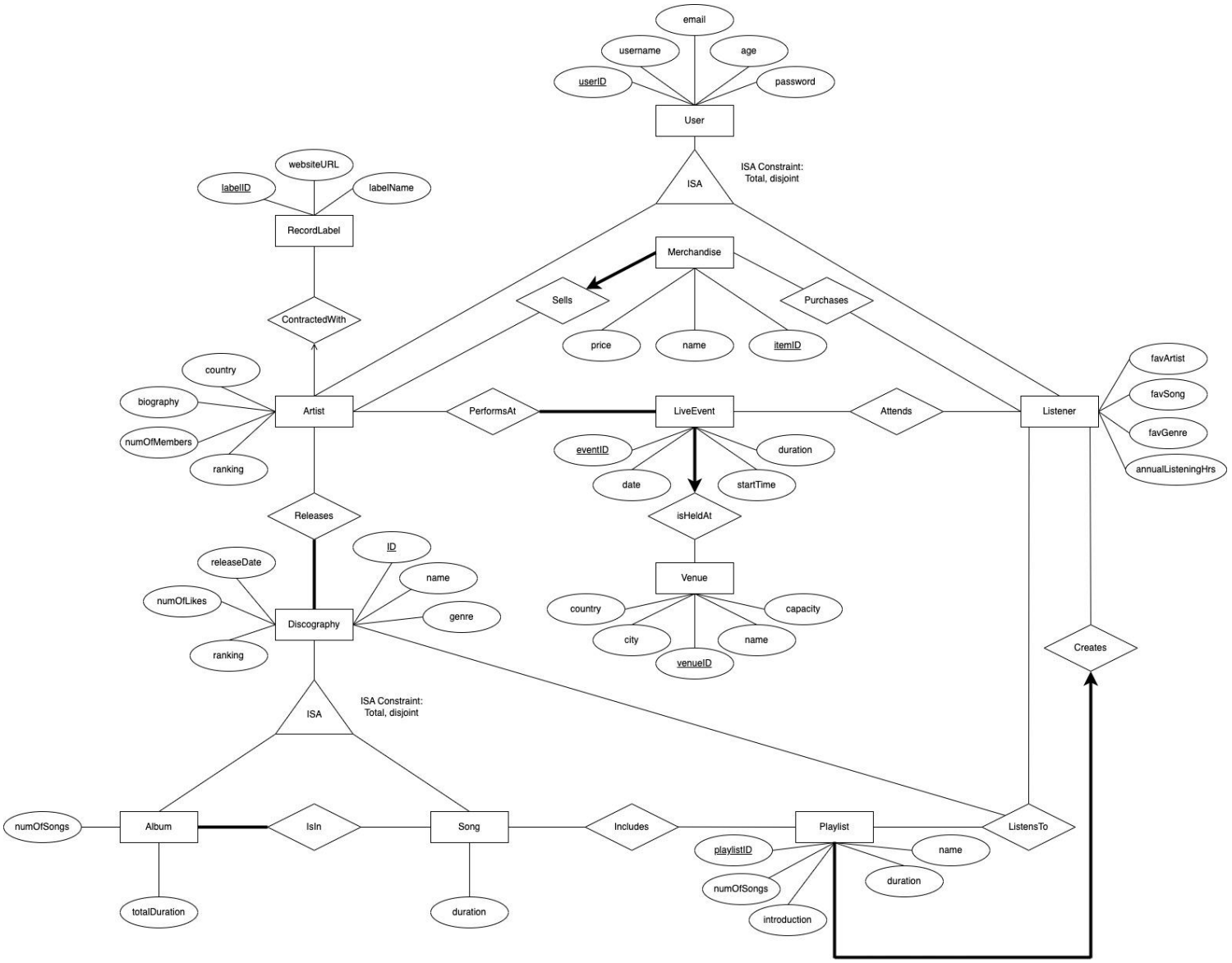
Whether single artists or bands, artists are able to register their information to the application, such as their name, discography and record label, as well as post information about their merchandise and upcoming live events on the platform.

Therefore, listeners can collect their favorite songs, explore new artists and keep up to date with their favorite ones, while artists can share their discographies and update their recent activities, as well as manage their events and merchandise.

Description of Application Platform

The anticipated tech stack for this project is React.js as the frontend, Microsoft SQL Server as the DBMS, and Java/Spring Boot as the backend. We will not be using any special hardware.

ER diagram



(NOTE: If there are difficulties seeing, please refer to attached URL in commen 🙂)

Entities and attributes:

- User - <u>userID</u>, username, email, password, age
- Artist ISA User - country, biography, numOfMembers, ranking
- Listener ISA User - favArtist, favSong, annualListeningHrs, favGenre
- RecordLabel - <u>labelID</u>, labelName, websiteURL
- Discography - <u>ID</u>, name, genre, releaseDate, numOfLikes, ranking
- Album ISA Discography - numOfSongs, totalDuration

- Song ISA Discography - duration
- Playlist - playlistID, name, numOfSongs, introduction, duration
- LiveEvent - eventID, date, startTime, duration
- Venue - venueID, country, city, name, capacity
- Merchandise - itemID, name, price

Relationships:

- Artist (is) ContractedWith RecordLabel
- Artist Releases Discography
- Song IsIn Album
- Listener Creates Playlist
- Listener ListensTo Playlist
- Playlist Includes Song
- Artist PerformsAt LiveEvent
- Listener Attends LiveEvent
- LiveEvent isHeldAt Venue
- Artist Sells Merchandise
- Listener Purchases Merchandise