University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: 3

Date: Mar 14, 2023

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 1, 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.

Summary

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 manage content interactions and payments between users, releases, artists, and distributors in their streaming services.

Timeline of Remaining Tasks

1. Initialization

Deadline: March 23rd (5 days)

- Research how Oracle databases are hosted, accessed, and maintained.
    - Can be done by partially reverse engineering the tutorial project
    - Done by all to ensure we all understand how to work on our respective tasks
- We will all do research but initialization of database would be done by Dhrubo to avoid conflicts.

2. Rewrite SQL Insert Statements

Deadline: March 23rd (5 days)

- Our current M2 INSERTs have releases that have no songs, billing addresses that are not associated with any payments, etc.
- Like the aforementioned cases, some UI pages may require associated information to display properly.
- Harper will work on changing INSERT statements such the data is consistent and that pages can properly display it.

3. Design UI/Front-end

Deadline: March 28th (5 days)

- Entities grouped into one of payments (Dhrubo), users (Bryan), and releases (Harper), each will be handled by a group member.
    - Build pages/windows to each of the major groups mentioned above, e.g. one page for a form that handles the INSERT statements under the hood, and the other for displaying data in a readable format, handled by SELECT queries with WHERE clauses.

4. Design and Setup Backend Structure

Deadline: April 1st (4 days)

- Set up main class, main UI instance, etc. (Bryan)
- Construct a skeleton consisting of interfaces and stub classes to plan out coupling and cohesion of various sections. (All)
    - e.g. how to handle queries involving multiple entities, back button etc.
    - Possibly model the entities into Java classes of their own
- Collectively decide on what objects/ui objects should be universal for all the pages and will split up the work and delegate people to work on a few each

5. Implement Backend

Deadline: April 5th (4 days)

- Each group member implements their designs from Step 3 using the classes created in Step 4
- Create each endpoint methods that would be hit by the forms and buttons in the front-end classes. (Endpoints are grouped by entity and handled by the same members mentioned in Step 3)
- Connect the backend methods to our SQL database. (each with their own entities)

6. Wrap Up

Deadline April 7th (2 days)

- Finish any outstanding tasks.
- Prepare application for presentation.

Challenges

We expect that the majority of our challenges will come from figuring out how to cleanly convert our heavily coupled database design to a modular OOP design. To account for this, we have given ourselves ample time for the design processes. If we run into issues structuring our application, we will review the example tutorials projects and collaboratively research best JDBC practices.