

Introduction

Project Overview

This project will implement a library database to manage the borrowing of books and other loanable items, as well as the membership of patrons in the library. This database is built to be easily modified and built upon, with multiple different loanable items being easily able to be added. Additionally, the database will allow for numerous queries to manipulate, visualize, and delete the data.

Scope

The project will consist of relations containing books, with numerous attributes; relations containing library patrons, with books they are renting as well as their individual attributes; other loanable items, like movies or music, and their attributes; and library administrators, and their attributes and privileged functions.

Glossary

Query: A request made to the database to generate, update, or delete data from a given relation.

Administrator: Someone with elevated privileges, and is generally responsible for managing the physical library through the database.

Librarian: Someone who helps members borrow/return books, updates member information, and maintains day-to-day services at the library through the database.

Library Member/Patron: A person who goes to the library with the intention of renting a book or other loanable item, who can loan out certain items, and can return those rented items.

Platform

MySQL was selected for our platform. MySQL was selected because it is a technology that most of our team has experience with. It is also open-source so it is completely free to use, making it a great choice for a school project.

Physical Schema

See the SQL DDL statements in **setupLibrary.sql**.

Table Contents

See the contents of each table in the folder **LibraryDatabaseContents**.