Progress Tracker Project

You're a Java Developer and you are being tasked with creating an application that can track the **progress** for a user for different topics from a data repository. You'll be able to see if some task is **not completed, in-progress, or completed**.

For example, you may have a data repository (data stored in some database) of popular TV Shows. A user who accesses your application will be able to pick from a list of those shows and put them into 3 categories: plan to watch, currently watching, and finished watching. Users could have different shows in their trackers and may have made different levels of progress in completing a show.

Topics

1. **TV Shows** - Track progress of a watchlist. What shows do users plan to watch, are currently watching, and have finished watching.
2. **Books** - Track progress of a reading list. What books are you planning to read, in progress of reading, and have finished reading.
3. **Music** - Track albums you're planning to listen to (especially if they haven't been released yet), are listening to, and have listened to. Can also just track individual songs.

Functionality

In order to begin this prototype, make sure you have at least two tables, a User table and another table for the topic you'll track. Make sure you have the following in your project:

- A **console based menu** where users can navigate to different options to update and view their trackers
- Users can **login** with a username and password
- Each user can view a tracker where they can see what is **not completed, in-progress, and completed**
- Users can only access the information tied to their account and **make changes to their trackers** (as a developer try to think of what kinds of changes may be useful for a user to make)

Requirements

- Data will be stored in a **MySQL** database
- Show an **ER diagram** for your database
- Create an **SQL script** that will initially create the tables and data that will be present in your database
- Use **JDBC & DAO** in order to connect Java to SQL backend
- **GIT** used to track project
- Use **Agile Principles** on your project, with a **Kanban Board** to track your tasks
- At least **2 Custom Exceptions**
- **At least 10 topics for users to choose from** for their tracking list

Extensions

- Create your own **Project Requirements Document (PRD)**
- Build your java project as a **Maven Project**
- Anything in progress should have an indicator for how far along a user is in completing it (Ex: a user has watched 12 out of the 50 episodes for a show)
- Create an admin user that is able to add, remove, and edit topic information
- Allow users to see tracker reports for a topic as a whole
  - How many users have completed a show, still watching a show, etc.
- Have an option to create an account if a user doesn't have one
- Have a way for users to rate a topic, be able to calculate and show the average rating for that topic (Ex: rate a show out of 5 stars)
- Create a simple UI to show the users the status of their tracked items

Project Requirements Document

You will also be given an example Project Requirements Document (PRD). A product requirements document (PRD) defines the requirements of a particular product, including the product's purpose, features, functionality, and behavior. It serves as a guide for business and technical teams to help build, launch, or market the product. In the triangle below, The PRD represents the result of Conceptualization and Diagnosis, and Outcome Oriented Research. For this project, you can choose to create the Proof of Concept before you begin.

Conceptualize and Diagnosis

Outcome Oriented Research

Proof of Concept

Minimal Viable Product

Whole Product & Extension Visualization