CSCI 4448: Project Part 2

Team:

- Matt Oakley
- Daniel Thompson
- David Ingraham
- Cory Cranford

Title: Virtual Library

Project Summary: The intent of our project is to allow a user to keep track of their physical library in a virtual environment. The application allows a user to make an account, search for existing books (stored in a database), and add that book to their library within the app. Within the virtual library, a user is able to rate, comment about, and/or remove books from their library. Additionally, a user can retrieve information such as word count, author, and publisher associated with specific book in the library. If time permits, a user would be able to search for other users and see their favorite books stored within their library.

Project Requirements:

Business Requirements:

ID	Requirement	Topic	Actor	Priority
BR-01	The database which stores books will be updated to include new books on a monthly basis.	Data Update	None	Medium

User Requirements

ID	Requirement	Topic	Actor	Priority
US-01	As a user, I want to make an account with my email address so that my data is stored and associated with my account.	Sign-in	Standard User	Medium-High
US-02	As a user, I want to search	Search	Standard User	High

	for an existing book so that I can potentially add it to my virtual library.			
US-03	As a user, I want to add a searched-for book to my virtual library so that I can keep track of my owned books.	User Abilities	Standard User	High
US-04	As a user, I want to select a book in my virtual library so that I can comment about, retrieve information, etc. about a specific book.	User Abilities	Standard User	High
US-05	As a user, I want to retrieve the word-count of a book that I select so that I can see how large or small it is.	User Abilities	Standard User	Medium
US-06	As a user, I want to retrieve the author of a book that I select so that I can see who wrote it.	User Abilities	Standard User	Medium
US-07	As a user, I want to retrieve the publisher of a book that I select so that I can see who published it.	User Abilities	Standard User	Medium
US-08	As a user, I want to retrieve the ISBN number of a book that I select so that I can keep track of it.	User Abilities	Standard User	Low
US-09	As a user, I want to be able to set a book as my “Favorite” so that I can frequently see it, comment about it, etc.	User Abilities	Standard User	Medium
US-10	As a user, I want to be able to make a comment about a book in my virtual library so that I can record my	User Abilities	Standard User	Medium

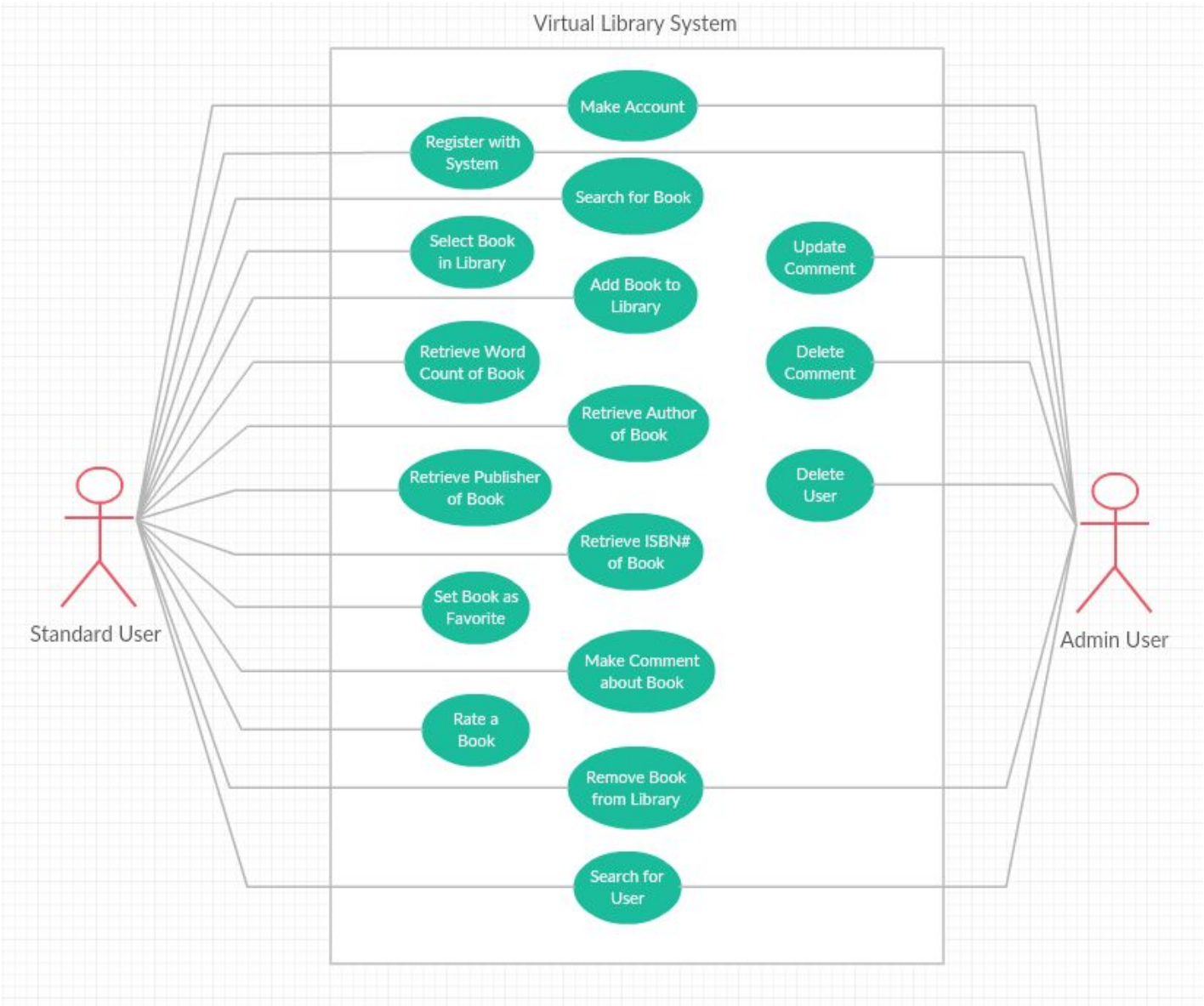
	thoughts about the book.			
US-11	As a user, I want to be able to rate a book in my virtual library so that I can record my rating/sentiment about the book.	User Abilities	Standard User	Medium
US-12	As a user, I want to remove a book from my library so that I can delete books that I accidentally add.	User Abilities	Standard User	High
US-13	As an admin, I want to search for a user based on their username so that I can view information about their account.	Admin Abilities	Admin User	Medium-High
US-14	As an admin, I want to update a user's comment about a book so that I can manipulate poor comments.	Admin Abilities	Admin User	Medium
US-15	As an admin, I want to delete a user's comment about a book so that I can monitor and/or get rid of bad comments.	Admin Abilities	Admin User	Medium
US-16	As an admin, I want to manually remove a book from a user's library so that I can keep their virtual library accurate.	Admin Abilities	Admin User	Medium
US-17	As an admin, I want to delete a user so that I can get rid of malicious users.	Admin Abilities	Admin User	Medium
US-18	As a user, I want to search for another user based upon their username so that I can view their virtual library.	User Abilities	Standard User	Low

US-19	As an admin, I want to make an account with my email address.	Admin Abilities	Admin User	High
US-20	Upon creating an account, the user is registered with the system.	Register	Standard and Admin User	High

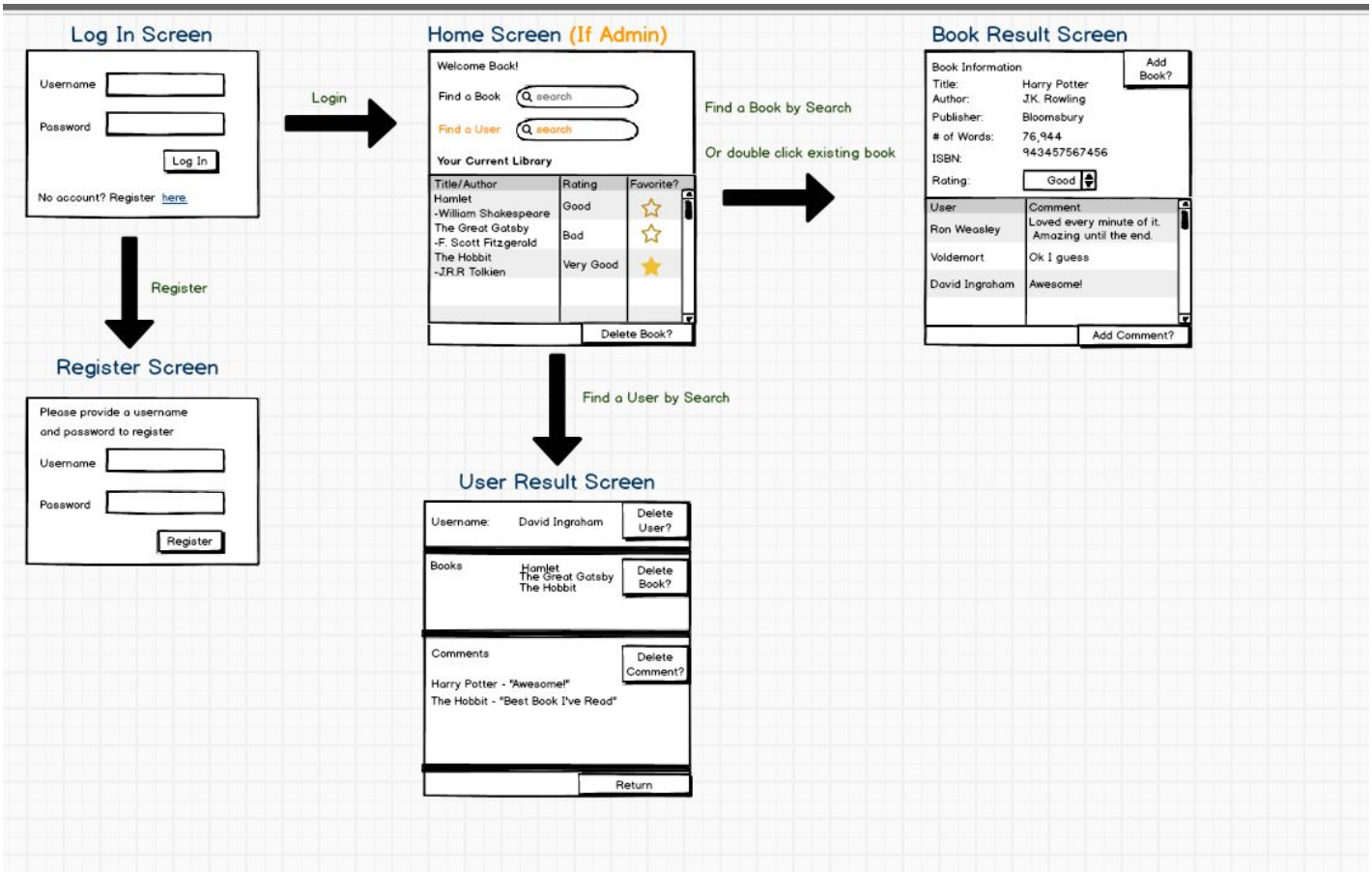
Non-Functional Requirements

ID	Requirement	Topic Area	Actor	Priority
NFR-01	Upon adding a book to their library, it should appear in the library within 3 seconds.	Performance	Standard User	Medium
NFR-02	The user's email, password, and username should be securely stored in a database.	Security	Standard User	High

Use Case Diagram:



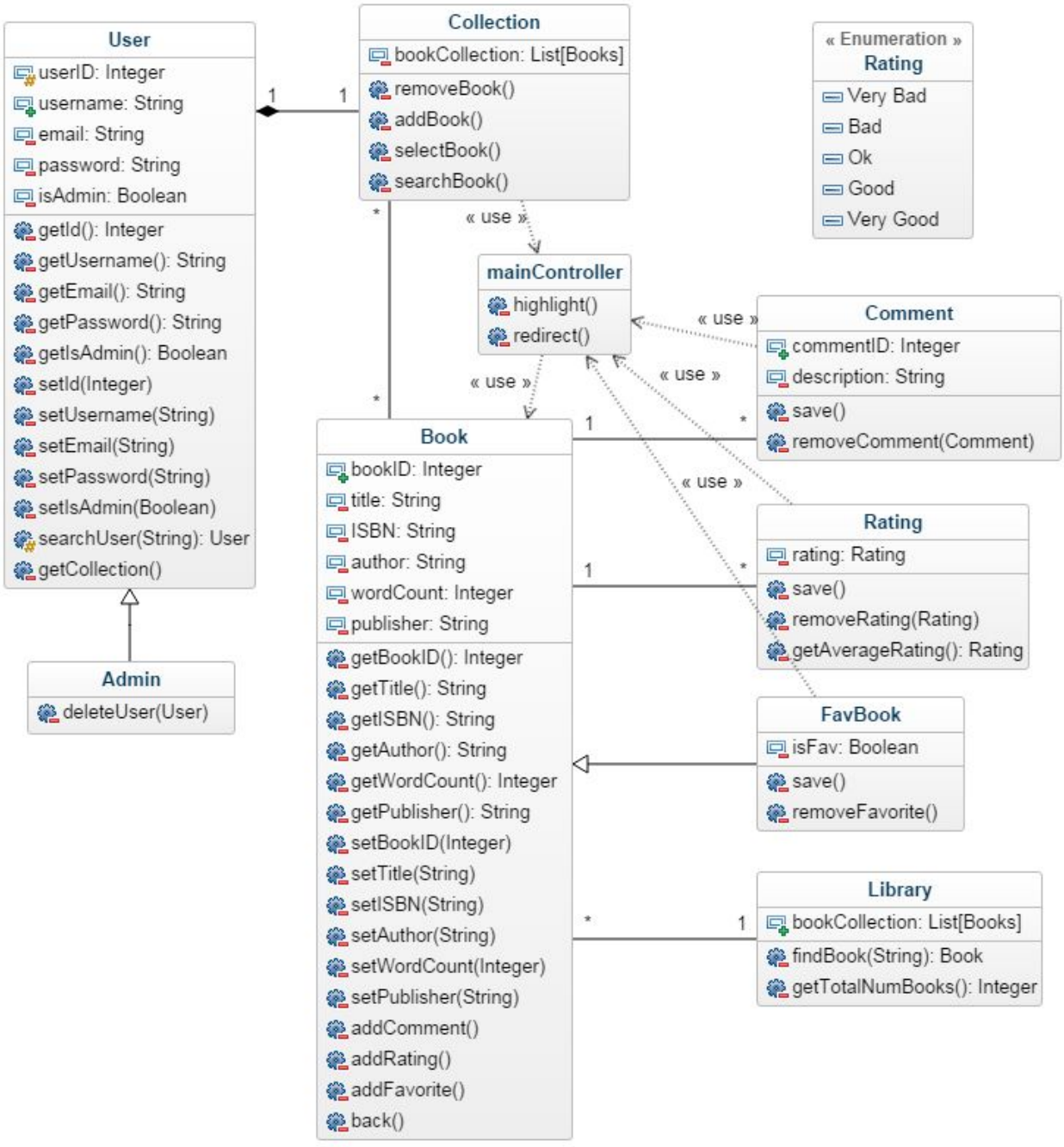
UI Mockups:



Data Storage:

In terms of data storage, we're planning on using MySQL as our database and Workbench as our tool to work with the data. Within the database, we're planning on having the user, book, user's collection (aka their personal library), and overall library objects persist via our database.

Class Diagram:



Note: Parameter names were left out due to the software we were using. Adding the parameter names required paying money.