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COSC 257 – Design Document

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**Project Idea Details:**

**Short Description:**

* Our project idea is improving the Classics library database. The current database is not functional. Our idea is to build a new database system and display the data in a website. The goal is to allow users to search by multiple categories, such as, title, author, editor, etc. We also would like the user to be able to search without the need for an exact match. For the books displayed, we would like the entries to contain all information about a book, its location, its status, and additional notes. Additionally, we would like to provide the faculty members managing the library with the power to insert and update book entries. Ultimately, we want provide users with efficient access to the Classics Library with a user-friendly interface and advanced search capabilities.

**Interactions that the users will be able to have with the database:**

* Search: Keyword searches to find books
* Advanced search options: filters by author, category, editor, translator
* Viewing Catalog Information: Display detailed information about books including, title, author, editor, edition, translator, and publisher
* Access metadata: cover images
* Checking availability: check the status of a book and whether it is missing
* Requesting borrowing or reservation
* Renewing and returing books
* Rating: allow user to rate books
* Feedback: allow user to report issues, provide feedback, and contact responsible faculty

**Current state of the data:**

* Data Source: manually entered into google excel sheet
* Data Volume: Around 2500 rows
* Data Structure: Each entry consists of title, category, donor, edition, editor, original author, publisher, and year of publication
* Data Quality: not all attributes are available for most books; titles contain unnecessary asterisks

**Deliverables:**

* Design Document: Project details and ER diagram
* ER diagram
* Database implementation
* SQL scripts
* Web User Interface implementation

**Software that you will use:**

* DBMS: PostgreSQL
* Programming Languages: SQL, HTML, CSS, JS
* Git and GitHub

**Any other detail that will help you actually completing the project:**

**ER diagram:**

