Rationale for the BookManager App in the ConcordiaBook Project

This report justifies key decisions made during the development of the BookManager app as part of the ConcordiaBook project, focusing on model design, view implementation, and template design.

Model Design

The model includes six parameters: title, author, edition, physical condition, course code, and availability. Title and author are essential for users to evaluate if the book meets their needs. Edition is optional, allowing empty values for users who may not know the edition. Physical **condition** helps users assess the state of the book, while course code ensures the app is user-friendly for course-specific searches. Availability tracks whether a book is available for trade, and unavailable books are excluded from the list. All parameters are set with appropriate field types: CharField for text, choices for predefined conditions, and BooleanField for availability.

View Implementation

The views utilize ListView and CreateView.

- **ListView** displays all available textbooks at http://localhost:8000/textbooks/ and textbooks filtered by course code at http://localhost:8000/textbooks/<course_code>/.
- **CreateView** provides a form at http://localhost:8000/textbooks/new/ for users to submit new entries.

Template Design

HTML templates are designed to display the form data in a clear, readable table format. Fallback messages are shown when no textbooks are available, such as “No textbooks are available for trade at this time” for the homepage and “No textbooks are currently available for this course” for course-specific pages. Basic CSS styling is applied for improved readability and user experience.

Challenges and solutions

The edition field is optional and set to accept empty values, achieved by setting null=True and blank=True. A checkbox is used to track book availability, allowing the system to filter out unavailable books from the list.

Result

The app provides a user-friendly interface for students to view available textbooks for a specific course. The system filters textbooks by course code and availability, displaying the title, author, edition (if available), and condition. If no textbooks are found, a message is displayed indicating that none are available.

Github link: https://github.com/Tra1307/ConcordiaBook-project.git