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COEN 6311 Software Eng Midterm Exam Rationale Report

Github repository link

<https://github.com/yuelinwen/ConcordiaBookModule>

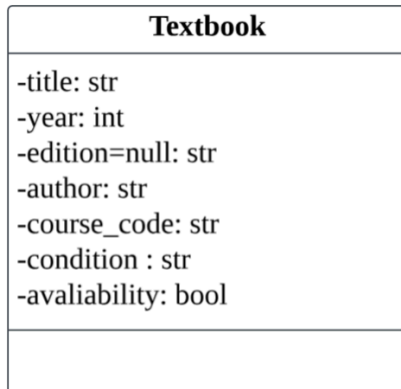
Design of Textbook Model

Data	Data type	
title	String	Store the textbook's title; required
year	Integer	Store the textbook's publication year; required
edition	String	Store the textbook's edition; optional
author	String	Store the textbook's author; required
course_code	String	Store the textbook's course code; required
condition	String	Store the textbook's condition: New, Good, Fair, or Bad; required
avaliabilty_status	Boolean	Store the textbook's availability status: True or False; required

To fulfill the basic requirements for listing textbooks, a book should include the title, year, author, course code, condition, and availability status so that students can browse and exchange textbooks.

The book's edition is optional, as some books may not have an edition label.

****UML Class Diagram:**



View Implementation

To implement the specific functionality that allows students to filter textbooks by entering a course code in my view,

At first, I created a search bar in the header, which receives the course code entered by the user and sends a query request through the GET method in the URL.

Then, in my textbook view, I wrote code in the `get_queryset(self)` function, which is a request-handling method from `ListView` in Django, to retrieve the resource passed through the GET query request.

Next, I compared the course code with the existing books in the database, filtered the corresponding `course_code` where `availability_status` is true, and stored these results in an object.

Finally, the `get_queryset()` function returns these results to the front end and renders them on the screen.

If the textbooks are not found, it means the result returned is empty. I will simply display “No textbooks found” on the screen.

Template Design

Display “No textbooks found” on the main page with a `< p>` HTML tag.

Challenges and Solutions

This is my first time using Python and the Django framework to create a web app I have no idea how Django works and its structure, and I spent a lot of time learning and debugging code.

To overcome this problem, I watched the professor’s tutorial video, which was very helpful. I also read the Django documentation, as well as resources like W3Schools, to understand how Django works and implement my project step by step.