University Bookstore Database

Project Description

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Background

This project is motivated by the needs of university students and professors for an affordable university bookstore service. Many students and professors will purchase textbooks and supplies at an increased price (compared to their standard market value) from their university bookstore, or resort to illegally downloading textbooks at the risk of potential legal issues.

The purpose of this database is to eliminate these issues for cash-strapped university students. It should provide an affordable alternative to catalog all necessary supplies (notebooks, pencils/pens, textbooks, math sets, technology, snacks...and more).

I have provided an indexing database that catalogs all supplies and textbooks. The database should be useable by everyone and allow the functionality of searching for items. Administrators can correct the indexing database, especially if a particular item runs out of stock. Users can submit their own entries to the database (supplies or textbooks), very similar to Kijiji. A user has their own user ID, email address, and password.

For school supplies, the database contains the ID (unique key), the type, the stock of each item, and the price. For textbooks, the database contains the type of course required (e.g., computer science), stock of each item, a textbook code (unique key), the actual textbook name, the price, and the primary author(s). The search feature allows users to see if a particular item in the bookstore is out of stock and check the current price of the item. Note that there **could** be a sale/clearance on a particular item. For complexity purposes, a user can create an order transcript that consists of one textbook and one supply only, or only one of either. Each order has a unique order number (an auto-incrementing key).

The target size of the database will vary depending on what items could get added into the store. There can be a fluid number of school supplies but a static number of textbooks available in the database. The application hosting is web-based with user interaction through any current popular operating system (e.g., Windows 10/11, MacOS, Linux...) and any current popular browser (e.g., Chrome, Edge, Firefox...).

ER Diagram