# CS307 Group 30 Project Charter

**Team Members:**

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**Project Title:** Purdue Textbook Marketplace

**Problem Statement:** Textbooks are required in almost all of college classes at Purdue. With the high price point of new textbooks, students often spend time searching for better deals, either through different vendors or individual sellers. It also might be hard to find the specific textbook for your class due to the number of different versions there are. While there are existing textbook price comparers and Purdue Textbook finder for specific classes, there isn’t a general solution, nor is there a marketplace where you can communicate and purchase from other students.

**Project Objectives:**

- Create a marketplace where Purdue students can filter (e.g., by course) and find used textbooks from other students.
- Allow users to track the price of a textbook.
- Create verified Purdue University user profiles to see their rating, the books they are selling, and the books they track.
- Implement a rating system where users can rate other users based on their buying experience.
- Design a messaging system where the buyer and seller can communicate.
- Find a textbook based on ISBN, author, or title and list the website of the retailer with the cheapest price, including other websites selling the textbook.
- Suggest textbooks based on user’s previous searches.

**Project Stakeholder:**

- Users: Purdue students, graduates, professors, etc., who are looking to buy and sell books.
- Developers: Dung “Ryan” Doan, Xavier Huu Pham, Jeffrey Yian Wang, Shicheng Fang, Michio L Sekiguchi
- Project owners: Dung “Ryan” Doan, Xavier Huu Pham, Jeffrey Yian Wang, Shicheng Fang, Michio L Sekiguchi
- Project manager: Jakob E Hain

**Project Deliverables:**

A web application that will have the following features:

- Login authentication from Purdue Itap or email authentication.
- Front end web application that allows users to view, search, create, and alter listings, and to also contact sellers (HTML, CSS, JavaScript, Bootstrap, Bulma, Tailwind).
- Backend database that stores and updates listings and user's messages. Textbook data including (but not limited to) ISBN, author, title, numbers listed, etc. It should also be made easy to query the database to support user search (Python, SQL, MySQL, connector, psycopg2).
- Backend API query system that queries textbook prices from several vendors (Python, Amazon Product Advertising API, eBay Developers Program API, Scrapy, Beautiful Soup, etc).
- Cookies that remember user's previous searches (maybe also suggest books based on their major) (JavaScript).
- Deployment platform to host our webpage (Node.js, Next.js)