

**Michael Li g4limich**  
**Brendan Lynch g3lynchb**  
**Wenfeng Jiang g5jiangw**  
**Plato Leung g5leungp**

### **CSC 309 Assignment 3 Phase 1 Project:**

#### **Required Reading**

**Description:** The two largest issues university students have about buying textbooks are its pricing, and it's actual relevancy to the course in question. Required Reading is a textbook exchange platform between students that aims to provide its users with a service that is more in line with the actual experience of the class. While textbooks on a reading list might be labeled as "mandatory" there is no guarantee that everyone's personal experience with the course will show that this is the case. Therefore the application also includes information such as the rating of the textbook as towards its relevancy for the course. Users can leave comments about the textbook and course, and are also encouraged to suggest alternative texts if they feel others provide a better teaching aid.

#### **How it Works:**

Required Reading is an online service where users can create an account, and sell and buy textbooks from other students, while also learning if their place on the required reading list is warranted or not. Users can create listings for textbooks they want to sell, rate textbooks based on usefulness, make comments about these textbooks, and message other users regarding the selling and buying of books. The meetings arranged over personal message to exchange the textbooks will not be supported by the application. Users that complete transactions with each other will also be able to rate each other based on the experience, creating a system that rewards trustworthy users with higher rankings in the listings when searching for textbooks. When searching for textbooks, rating along with personal data is used in matching and ranking results.

#### **Challenges for the Application:**

The main challenge of the project is ensuring that our platform is able to initiate and fully support a textbook exchange transaction. Here there is a lack of reliability with informal meetings arranged outside of the application for transaction completion. We will attempt to combat this issue by creating a rating system so user can prefer to do business with more trusted sources. Another challenge for the application is being able to keep the reading list for classes updated, as there is no guarantee for them to stay the same after each semester.

#### **Project Features:**

**User Authentication:** We will use a two way matching process between public user identification and a private identifier password.

**User Profiling:** Each user in our system will have a profile. A user profile will contain a collection of personal data regarding their reputation as a textbook seller, their favourite

courses, their currently listed textbooks for sale and contact information if someone wishes to purchase from them. This information is viewable by all other users.

User Interactions: A user can act as either a buyer or a seller. As a seller they can create and remove listings for the textbooks they have for sale, and as a buyer one can browse these listings. In addition, all user can rate textbooks on their relevance and leave comments about them. They can also recommend other books

Implicit Social Networking: Users can send personal messages between each other, and are all considered to be friends within a common community.

Search and Reputation System: Users can search for textbooks based on specifications such as course code and program. Buyers can also give a rating score to the seller based on the quality of the transaction. This rating will also affect the positioning of the seller's textbook in the search queries buyers give. When viewing textbooks, recommendations for other courses and textbooks will also be given based on personal user data. An increased rating represents a more trusted seller, which assists in the process of deciding which seller would be the best to go to.

Admin: We will provide basic admin functions included but not limited to changing passwords, altering user information and initializing/repopulating the database. Admins will also be able to create and delete book descriptions for courses, and look up aggregate analytical information such as total number of users and the number of listings created in the last day.