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Ministry of Education
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CS 411 – Software Engineering
Term 1 – 2022/2023

Software Requirements Specification

For

Goodreads Application Development Project

Version [xx]

[Name of Team] ..example: CS Year 3

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Date of preparation

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Revision History

Name	Date	Reason For Changes	Version
All members	Sep 30, 2014	Prepared initial version	0.1
All members	Oct. 30, 2014	Updated section 3	0.2
...			
All members	Nov. 14, 2014	Complete review - Final version	1.0

1. Introduction

This project is for developing Goodreads application. It is an American social cataloging application that allows individuals to search its database of books, annotations, quotes, and reviews. Users can sign up and register books to generate library catalogs and reading lists. The app is designed to help readers discover new books by searching titles or authors, and it provides curated recommendations from the books you have read and reviewed.

1.1 Purpose

This document represents The Software Requirements Specification (SRS) for the logic sub-component of the Goodreads application. It is designed and written for the stakeholders, such as the sponsor, project manager, software designer and developers involved in the project. Its purpose to describe the scope, both functional and non-factional software requirements.

1.2 Scope

This project will involve developing and designing a Goodreads application that enhances reading quality, serves readers and listeners needs by discovering new books and recommendations using special algorithms within the framework of a predefined budget and timely professional's manner to meet the needs of end users. The following figures illustrate both functional and non-functional requirements within their priority

- **Functional Requirements:**

Requirements	Priority
The system shall allow users to choose their preferred language for reading and listening.	● Must-have
The system shall allow the users to choose more than one language.	● Must-have
The system shall allow users to log in with their Google accounts.	● Must-have
The system shall display suggestions according to the letter entered by the user.	● Must-have
The system shall add an AI auto-responder to solve users problems and questions.	● Must-have
The system must support distributed systems where the user is able to view his statistics via the Apple Watch.	● Must-have
The system shall authenticate a user when it tries to log on to the system.	● Must-have

Figure 1- Functional requirements

• Non-Functional Requirements:

Requirements

The system shall be able to handle 1 million users without performance deterioration.

When the user presses the change language button, the selected language should load within 3 seconds.

When the user presses the register button, a confirmation message should be sent within 2 seconds.

The Discover page should load in 3 seconds so that the total number of concurrent users is less than 6 thousand.

Each request should be processed within 10 seconds.

Priority

● Must-have

● Must-have

● Must-have

● Must-have

● Must-have

Figure 2- Non-Functional requirements

1.3 Definitions, Acronyms, and Abbreviations

TERM	EXPLANATION
SRS	Software Requirements Specification
AI	Artificial intelligence
LOGIC	Refers to a sub-component of the Goodreads application that is responsible for maintaining the app's logic.
SUB-COMPONENT	These are Components that are derived from another parent Component, so they get their Modules as well as their own.
USER	A person who can interact with the application.
ACOUSTIC NOISE	Any sound, deliberate or accidental, occurring in the acoustic domain.
DIMENSIONS	provide an easy way for uploading data into a dimension.

References

- [1] O. C. Definition, "Operational Constraints Definition | Law Insider".
- [2] A. Srivastava, A. Kumar, J. S. Dhaliwal and I. Shanaya, "Software Requirements Specification," National Informatics Centre India.
- [3] J. Brooks, F and P, "The mythical man-month: essays on software engineering," *Pearson Education.*, 1995.
- [4] P. Roger and M. Bruce, Software Engineering A Practitioner's Approach, McGraw Hill Higher Education, July 6, 2014.
- [5] I. Somerville, Software Engineering, Addison Wesley , 2016.
- [6] M. Phillip and B. Hallam, "User Interface Requirements for Sale of Goods".

2. Overall description

2.1 Product perspective

The Goodreads application is considered independent and a self-contained application, therefore the application has a few constraints:

a) System interfaces:

1. Strict security authentication
2. Acousticnoise (produced by the system)
3. Dimensions
4. Maintainability

b) User interfaces:

The user interface shall be compatible to any operating system such as ios and android and it shall be implemented using any tool or software package like java. Also, the developed system shall have intuitive and easy to use interface for both users and administrators.

c) Operations:

1. The system shall conduct operations to protect the database from any corruption
2. The system shall limit ant transmission operation due to system emergency
3. Loading conditions will only authorize certain employees to download certain files
4. Maintenance outage on the Transmission Provider facilities [1]

d) Hardware interface:

Since the software must run through the internet, all hardware will be required to connect to internet and that can be conducted via:

1. Desktop site (recommend using Chrome and Firefox).
2. Web site which supports Desktop version and Mobile version
3. Mobile application which can be downloaded by Google play and Apple store

2.2 Product functions.

Context diagram:

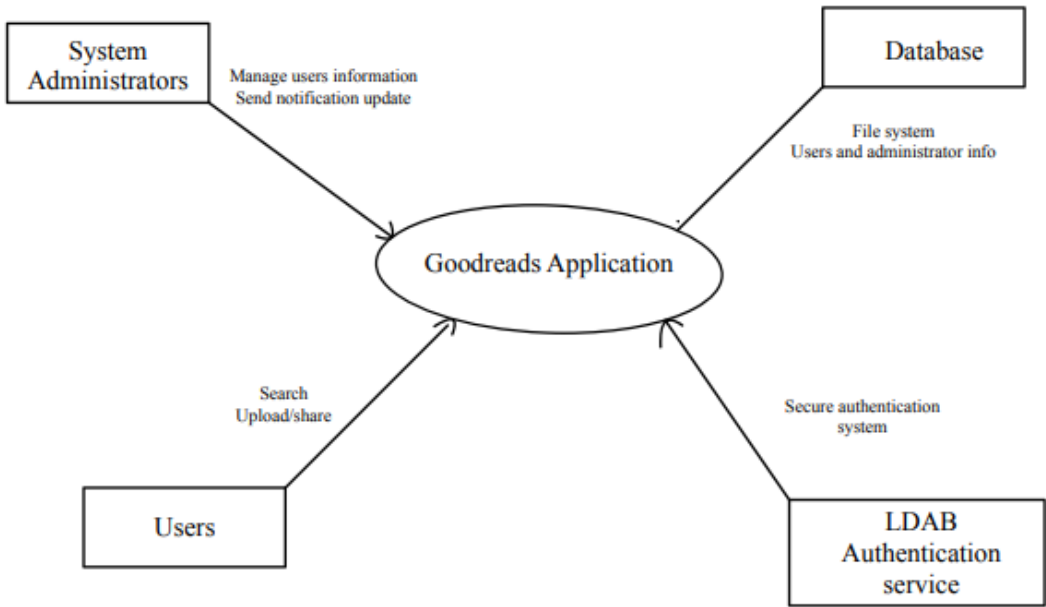


Figure 4- content diagram

User case diagrams:

The following figures indicates the process of users in accessing the system [2]

1) User login

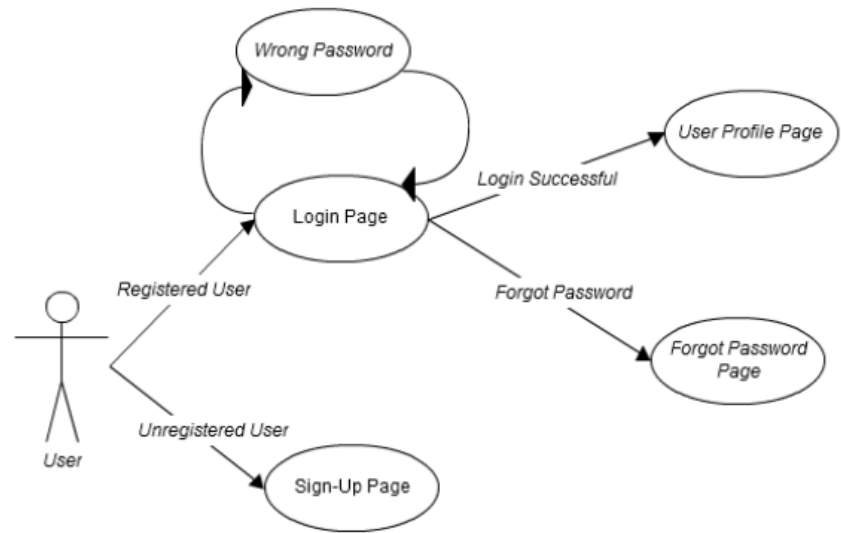


Figure 5- login diagram

2) Searching

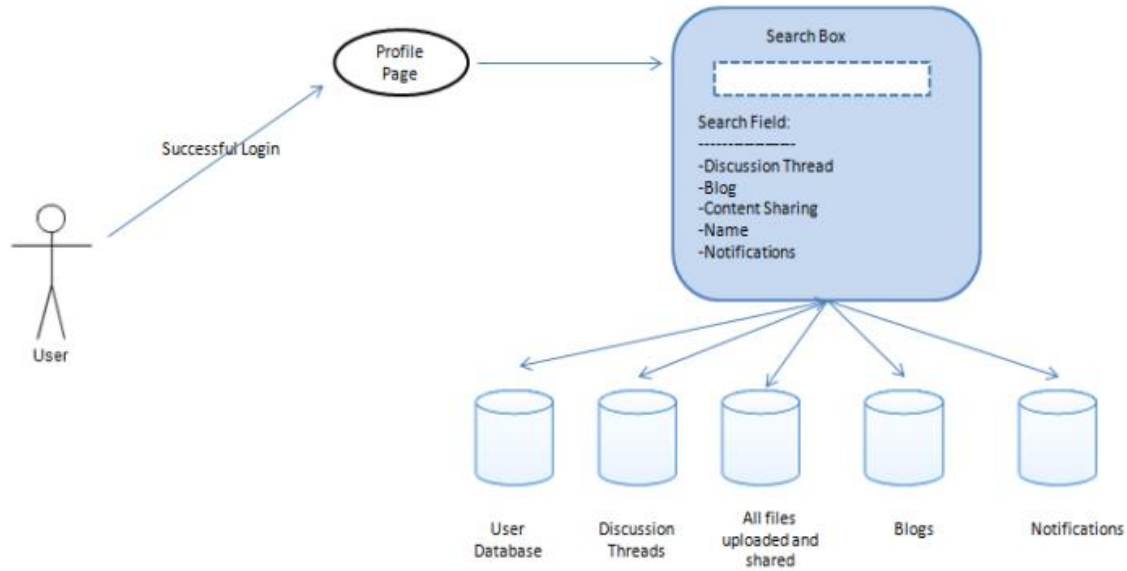


Figure 6- search diagram

3) Discussion threads

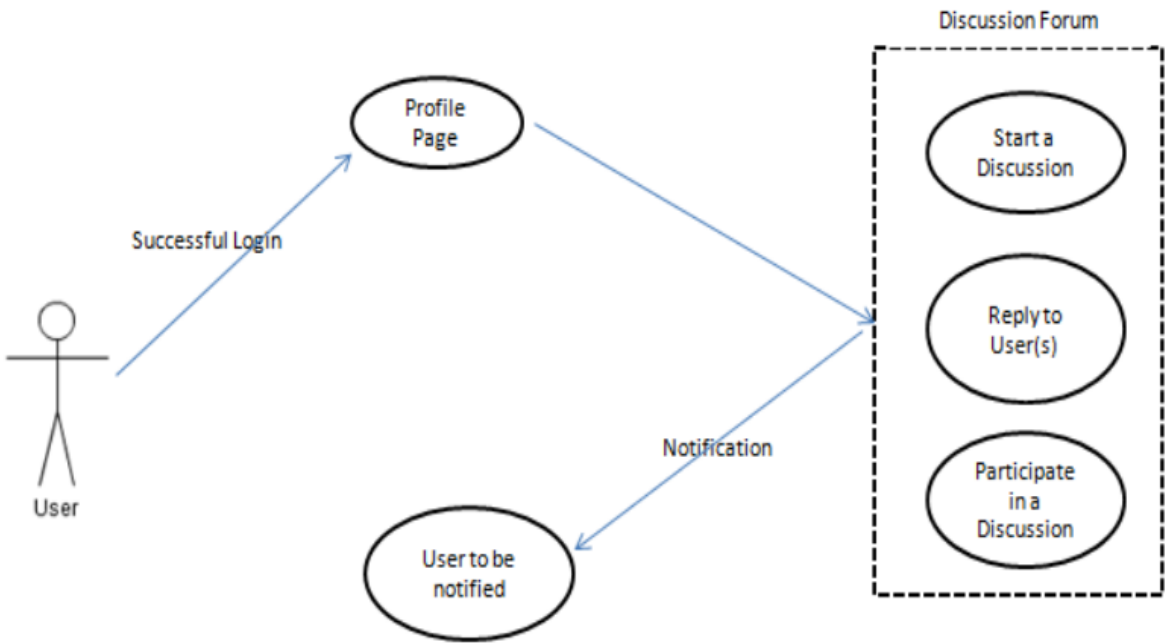


Figure 7- Discussion threads diagram

4) Content sharing

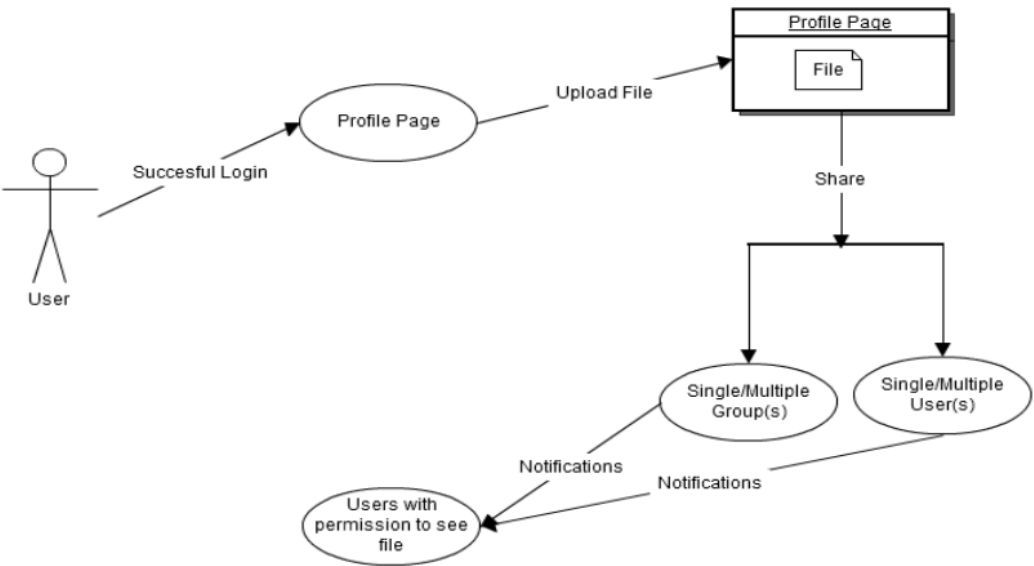


Figure 8- content sharing

3. Specific requirements

3.1 External interface requirements

1. Managerial requirement
2. Scheduled milestone
3. Funds limit
4. Attendance record
5. Cost estimate

3.1.1 User interfaces

A first-time user of the mobile application should see the log-in page when he/she opens the application, see Figure 1. If the user has not registered, he/she should be able to do that on the log-in page. If the user is not a first-time user, he/she should be able to see the search page directly when the application is opened the user can chose the type of search, he/she wants to conduct by writing the book title, author, or ISBN [3] see Figure 10

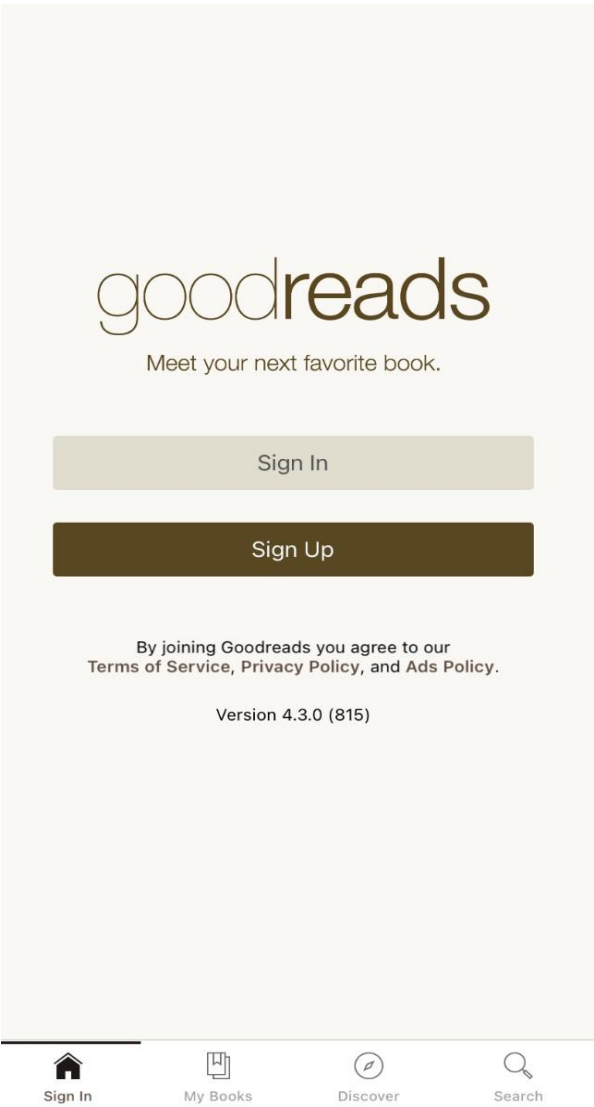


Figure 9

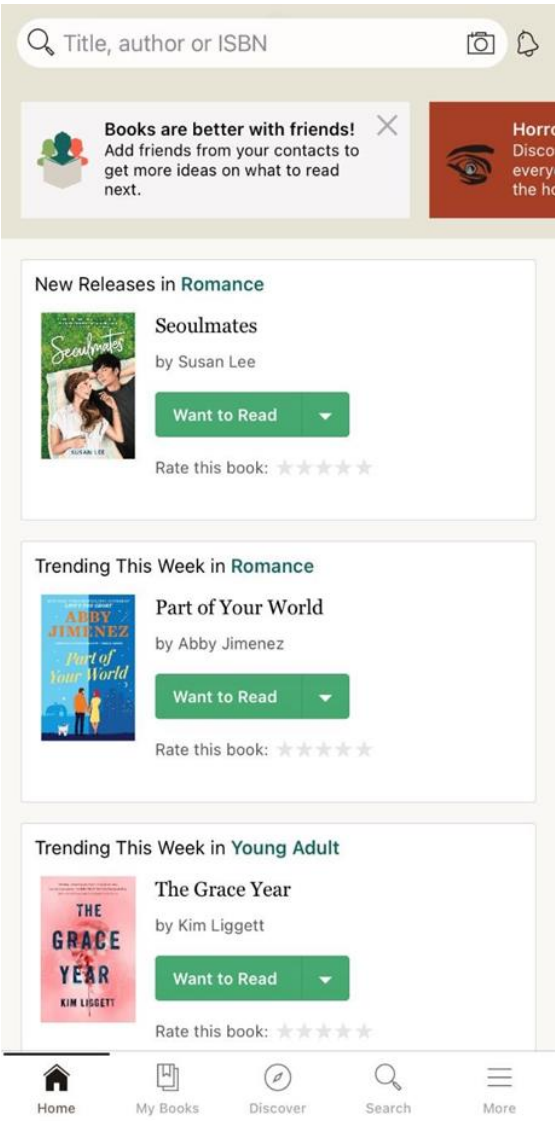


Figure 10

Every user should have a profile page where they can edit their names, Bio, profile picture and change the favorite book genres [4], see Figure 11. Furthermore, the user can participate in the reading challenges set by friends or himself see Figure 12.

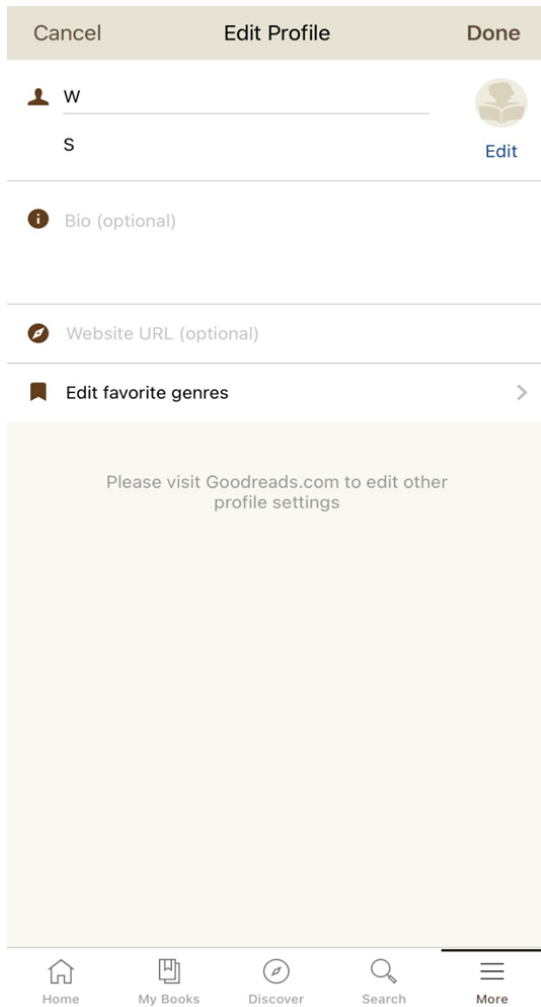


Figure 11

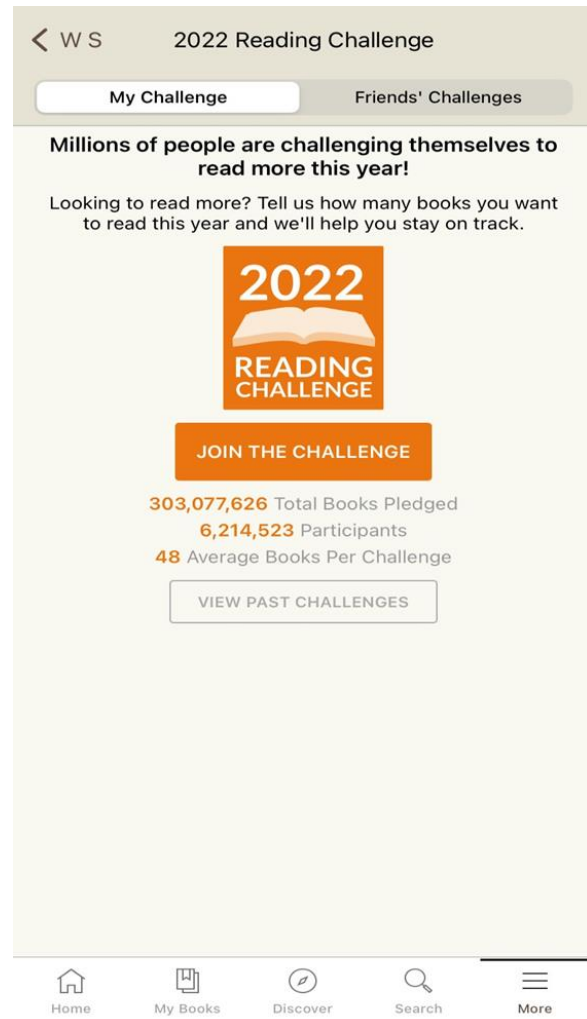


Figure 12

Users can join groups and get book recommendations by using AI based on the customer behavior and previously read books see Figure 13. As well as users can see the book reading progress, book rating, other users' comments and book descriptions see Figure 14. In addition to that user can share their favorite book quote to social media Also, the user can set the mobile application to his/her preferred language with the new update [5].

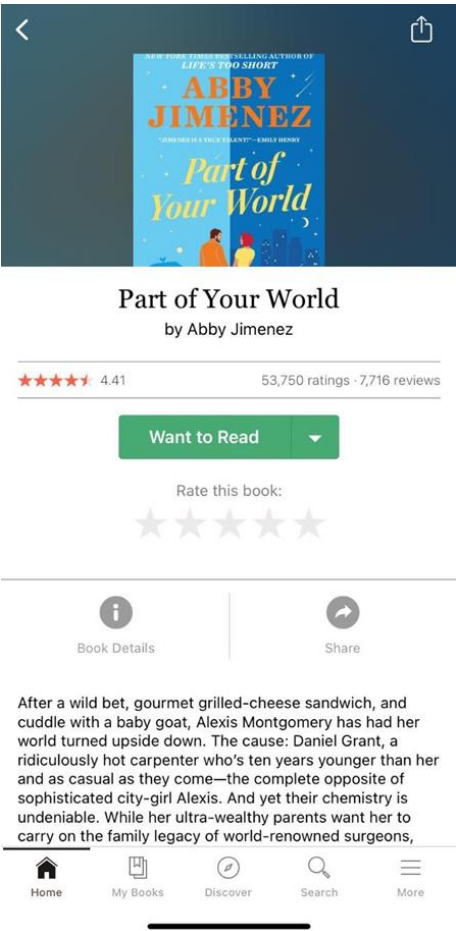


Figure 6

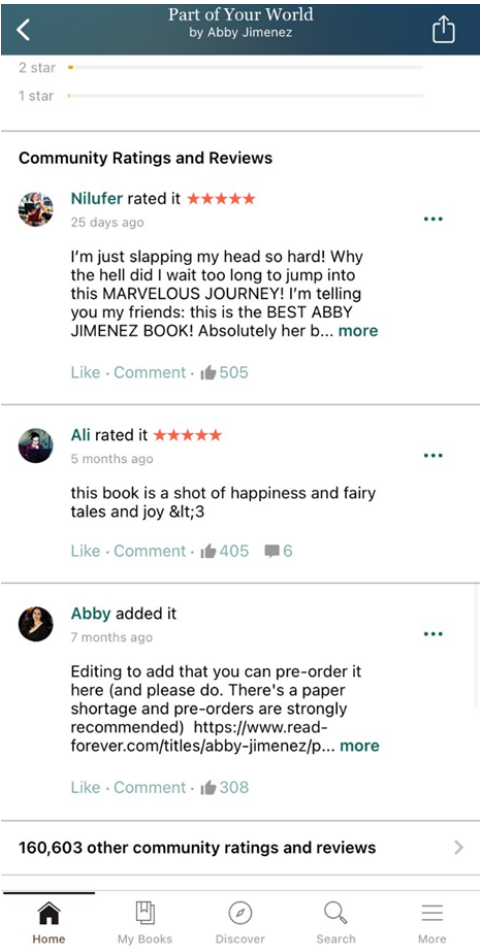


Figure 7