SOFTWARE REQUIREMENTS SPECIFICATION

for

E-commerce Website

Prepared by :
Abhishek Jaiswal (200001001)
Allu Mrudula (200001002)
Devesh Jindal (200001020)
Patel Nilay Prakashbhai (200001060)
Umang Jain (200001076)

Submitted to :
Dr. Puneet Gupta

April 12, 2022

Contents

5 Other Requirements

1 Introduction

1.1 Purpose

Describing and defining the functions and specifications of the Book E-Commerce System is the primary goal of this Software Requirements Specification. This SRS illustrates in clear terms, the system's primary uses and required functionality as specified by us. This document intend to give a clear idea of how the website should be used, and what features it has for our reference for development.

The basic aim of this document is to define the parameters and goals of our E-Commerce websites and it's user end requirements, system specifications, and a roadmap to the complete project development.

1.2 Intended Audience and Reading Suggestions

This SRS is primarily for our group members and also for any developers, project managers, users and testers who may work on this project in future.This project aims to develop a C2C E-commerce platform for the sale and purchase of second hand books, It is primarily to be used by students, faculty, scientists and other academia.

1.3 Definitions, Acronyms, and Abbreviations

1.4 Project Scope

The aim of this website is to create an online medium to allow different students and faculty members to sell their used books which are not used by them now or purchase used books at a reasonable price, within a university premise. Books play an integral role in the academics of an University Student. However, buying textbooks for 40+ subjects is not affordable for most of the students. To deal with that problem students usually prefer second hand books. The annotations that the Senior students have are beneficial for junior students. To ease out this problem in every university we have come with an idea to create a website which makes the commerce of used books completely electronic. Books in these website do not cost much as new books, so these can be purchased at low prices. People may also find helpful as they can also sell their books which are not helpful for them anymore. Junior students are found out books that have important concepts marked in it, by buying used books their main aim is also fulfilled. This website tries to ease the exchange of books between students, professors, and academia by
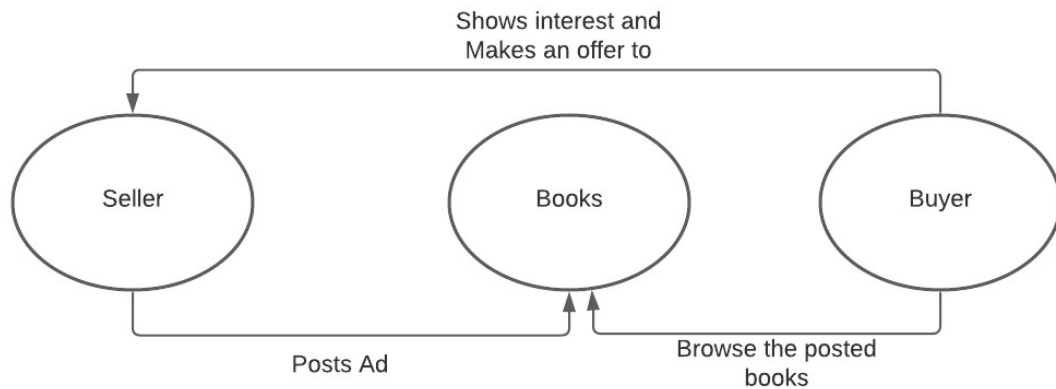
Figure 1.1: Entire work-flow

just few clicks. User can even negotiate with the seller. Instead of having contacts and asking people door to door in hostel, we intend to save a lot of time but filtering the sellers with the books students like.

Different students and faculty members can create an account on the website by entering their details in the process of registration and log in using said account onto the website. Then they will be able to see a list of all the available products and can conduct different search queries to check for their desired books. They can also upload the details of their own book in order to advertise it on the website and use it as a medium to find potential buyers. It is hard to look for people that are willing to sell second hand books these days, much less a book that one prefers. Hence a website like this is very useful to create a space where people can find the second hand books they need or sell the ones they have.

2 Overall Description

2.1 Product Perspective

Grabook website is an attempt to bridge the wide gap between buyers and sellers in second hand books market, by making it online. It replaces the process of moving from one shop to other in search of second hand books, Also, it eliminates the middleman shopkeeper which as a result gives better deals to both buyer and seller.

2.2 User Classes and Characteristics

Grabook has basically a single type of user, the consumer itself.

- Students

The same Student has 2 types of characteristics - He/She can buy a book (Buyer) and he/she can sell unused books too (Seller).

2.3 Product Functions

This website contain users who can buy and sell the books in the website. Information of all users is stored in the database. Users should be registered to buy or sell the books. People register by providing the information like user_name, first_name, last_name, email_id, phone_number, age, occupation, address, universiy_name, password. They can also upload their profile_picture and personal_bio.
All registered users can login the website with their user_name and password.
Books which are posted by the users have the information like title, ISBN, author, genre, year_of_publication, publication_name, price, place, age_of_book, 5 images of the book, book_id which increases automatically when a book is added to the database. Date on which the book is posted for sale is also stored in the table.
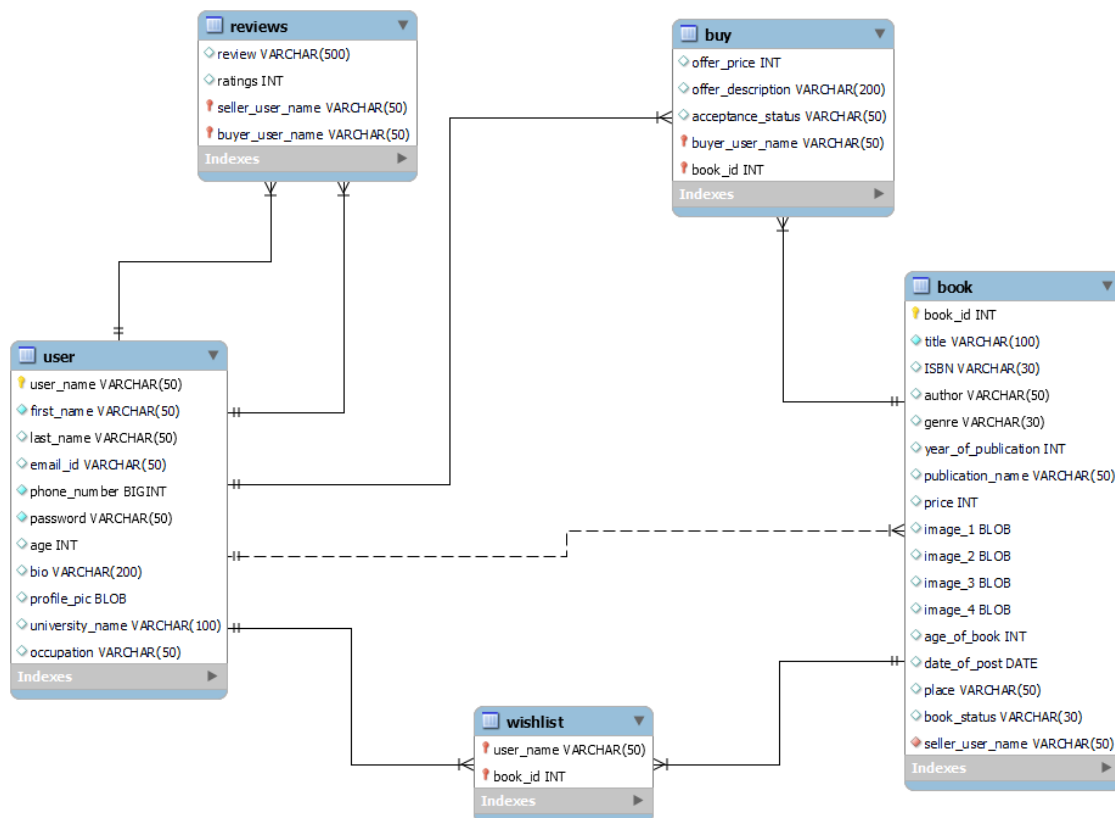
Figure 2.1: ER Diagram for Website

2.4 Operating Environment

The website will be operatable in any standard web browser in any Operating Environment.

2.5 Design

The main page will contain an option to register new user and give an option to Sign-In for already registered user.

- If not registered, user has to fill the form of his/her details.

- User can buy or sell books

- User Profile

If a user wants to buy a book, he can use the search functionality and browse between the various books available on the website.
On the other hand , if a user wants to sell a book , he has to post all te information regarding his/her book on the website along with some photographs.
Every User profile contains his/her personal information, books sold, books bought and also the wishlist.
User has the option to browse the available books by genre.
On searching/browsing a book ,user sees the cards of various books with limited information on it. On clicking a particular card, it shows a detailed page about the book along with photographs,description and user details.
Here he has the option to show interest to the seller by making an offer
In the profile section of logged in user, it will also contain information about various ads he posted. He can look if somebody has made an offer by clicking on the particular book.
If the user has posted a book for selling ,and somebody has made an offer, all the offers will be shown to the user(seller), here he can agree or reject the offer as per his choice.

3 System Features

Grabook is an E-Commerce website. The main aim of this website is to act as a medium for selling and purchasing second hand books.

3.1 Description and Priority

Grabook has several features which can be placed in a hierarchy of priority based on importance.
The features with priority up to down -

1. Buying and selling books: This is the main intended feature of the website and it hosts various functionalities to aid this goal. This also includes login and registration functionalities.

2. Search functionality: It will allow various functionalities to search the item that the user wants. Users can search books using keywords and a list of matching entries from the databse will be shown. Users can also browse books with various filters like genre.

3. Book details: The website will contain details about all the products that have been advertised on the site to give full information to the buyers.

4. Profile: Users will be able to modify their profile information. This can be used by buyers to check information on the sellers of the products they are interested in.

5. Ratings and reviews: Users can give ratings to other users based on how satisfied they have been after participating in the act of purchasing books from them. These ratings can be used as a tool to check how trustworthy the seller is.

6. Wishlist: Users will have the option to add the books they like/want to buy to a wishlist.

3.2 Functional Requirements

The "E-Commerce" website is being build on .Nodejs framework, React, Html,css, JavaScript and MYSQl.
Back-End - NodeJs, Javascript language.
Font-End - HTML,CSS, JavaScript.
Database - MYSQl

3.2.1 User registration or sign-in -

- The system first asks the user whether they want to register or if they have already registered.

- In case they are already a registered user they can login simply by giving the registration details along with the password they have specified. This fulfills the requirement of creating a new account or logging in the account already created.

3.2.2 User registration

The system should allow users to create a new account. After successful sign-up, it should ask users details like First Name, Last Name, Username, Email-ID, Phone number and set a Password. This allows the end user to register them after clicking on "Create Account".

3.2.3 Profile

- The user should have the functionality to customize their profile. The information should include things like a profile picture, date of birth, personal bio, University name, Occupation, Address(Street, City etc).

- The system shall allow users to update and edit their profile information. The profile should also store information about the products purchased and sold by the user in the past and allow the user to view them. Only the user would be able to see the past purchases. However the sold books would be made public.

3.2.4 Login and logout functionality

- There should be proper login and logout functionality which creates a user browser session(in the form of cookies) on successful sign in and delete the session using the logout button.

- The logout option should be visible only when the user is logged in and vice versa.

- Delete account- User should be able to delete his/her account. On deleting the account, all the details including his/her books on sale should be deleted from the database.

3.2.5 Sell a book-

- On clicking upon this option,the user should be asked to upload all the details regarding the deal he is offering. The details include- photos(upto 5 pictures), author name ,genre, year ,title, publication, ISBN , price, description. Also, the user name, place, date of posting the ad should be stored as seller details with the book.

- Sellers should be able to choose and display at least one of the contacts from email or phone number.

- The seller should be able to see a list of all the people that have shown interest in buying their product and he should be able to see the contact information of the buyer and contact them.

- He/She should be able to validate one of those deals once the transaction is done behind the scenes. This sends a notification to the buyer and another notification to the other people who had shown interest in the book that they have not received the deal.

- The information of the buyer is automatically stored in the database. This removes the product from the displayed lists and adds it to the sold list of the seller profile. It also stores the email of the user to whom the product has been sold.

3.2.6 Buy a book-

- Users should have the ability to show interest in any book they find interesting, which then notifies the seller about their contact information.

- If the seller decides to sell it to them they will be notified accordingly. Otherwise they will receive a different notification telling them that the book has been sold and they have not received the deal.

- Delete a book- User Should be able to delete any book which he has already uploaded. Deleting should completely erase the details of the deal from the database.

3.2.7 Search a book-

- Users should be able to search by typing arbitrary keywords(Title) and matching results from the database should be shown.

- The system shall display all the matching products based on the search and allow users to navigate between them. It should also show if there are no matching results.

3.2.8 Browse functionality-

- Users should be able to browse by different categories(genre, city, author, year etc) or browse the results of a search query.

- While browsing they should see limited brief information on each book. On clicking a particular book the system will show a separate page with the book's details.

3.2.9 Book details

The system should display detailed information of the selected book on a separate page along with the seller's information(Like average rating,name), multiple photographs of the book,it's description given by the seller and options to buy the book.

3.2.10 Wishlist

Each user should have a private wishlist in which he can add the books he wishes to buy in future. There should be an option to view that wishlist and retrieve data regarding the books added from the database.

3.2.11 Rating and Reviews

People should be able to give reviews for any sellers. The system should display the reviews and ratings of the seller of a book when it is selected. The rating options will vary from 1 star to 5 stars.

3.2.12 Latest Feed

Latest new books' deals should be shown to the users in a separate section where they should be able to buy them.

4 Other Nonfunctional Requirements

4.1 Usability

- The user experience should be eye catching with smooth UI/UX. It should look modern and smooth. The webpages should be designed to look uniform and all the products should have details and images.

- It should be easy to use and all the features should be spotable.

4.2 Reliability/Availability

- The user should be able to use the website for 24 hours i.e. throughout the day. There should be no system failures.

- There should be appropriate testing and the reliability of the system should be checked using the test results.

4.3 Scalability

- The system should be able to perform at the critical performance level for thousands of users.

- The performance should not fluctuate if the number of users increases.

4.4 Security

- Every account should be secured by a password. A security system typically grants access to accounts when users enter the correct username and password.

- Passwords should be stored in the database after being encrypted for the security of data of users.

- System should allow users to set only strong passwords which are combinations of letters, numbers and characters and of at least 8 characters.

4.5 Speed

The website should load swiftly. There should not be any delay in loading images of the website. Search queries should be processed rapidly and results must be shown efficiently. The website should not lag and work smoothly.

4.6 Capacity

The system should be able to handle the data of thousands of users and thousands of books added by them. There should be no data loss.

4.7 Compatibility

The website should be compatible with different screen sizes ranging from mobile screen to tablet to PC. The design should look good in all of the devices.

4.8 Maintainability

- The system should be easy to maintain and manage with all the components being easy to modify and fix.

- The code should be understandable not only to computers but also to humans(i.e the different developers that are working/will work on the project).

4.9 Testability

The system should be able to perform tests. All components should be easy to test without much hindrance.

5 Other Requirements

Grabook needs maintenance as it is a long process software. It will need re-factoring and further the requirements can be changed as the field is changing frequently.