



SPARKY BOOK SERVICE

CLASS PROJECT PHASE 1

Team #23

Team Members:

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Project Overview

Login Page

Stakeholders' Requirements: The login page should have the following-

1. Company Logo
2. Store Name: Sparky Book Service
3. 2 text fields (ASU ID and Password) for authentication
4. 1 login button
5. 1 text field link to register in a new account.
6. 1 forgot password text field link.

When a user accesses Sparky's Book Service, the first thing they're prompted to do is fill in their ASU ID and password within the text fields. The program receives the user input from the login page and performs the authentication to direct the user who will be routed to different pages according to their role in Sparky's Book Service (i.e. Buyer, Seller, and Admin). If authentication fails, the user will be shown an error message saying, "Incorrect ASU ID or password". If the user has forgotten their password, they can click on the "Forgot Password" link below the login form. This will guide them through the process of resetting their password securely. New users who don't have an account can click on the "Register" link to sign up as a Buyer or Seller. The registration process will allow users to create an account and set up their role in Sparky's Book Service.

Buyer's View

Stakeholders' Requirements: The Buyer's page should have the following-

1. Company Logo within the corner of the page
2. Books listings, featuring title and price of each book listed
3. Categorization options to sort book listings by Genres i.e. Novels, Sci-Fi, Arts etc.
4. Classification options to sort book listings based on three different conditions: Used Like New, Moderately Used, Heavily Used.
5. Two buttons for buying books or cancelling purchases.

When a buyer accesses Sparky's Book Service, the first thing they're prompted to do is to login with their ASU ID and password in the initial login page. After passing authentication, they are routed to the buyer's page where the company logo and purchase books title is displayed at the top. With one list titled available books, and two different selection buttons to categorize available book listings by Category and Condition.

- The "Available Books" list will contain all available books currently up for sale within Sparky's book service, the book's title and price will be listed.
- The "Condition" and "Genre" button selections to the left of the list will allow Buyer's to categorize their books based off category and condition.

The Buyer may exit out of the service anytime by pressing the cancel button next to the buy button.

Seller's View

Stakeholder's Requirements: The Seller's page should have the following:

1. Company Logo within corner of Seller's page
2. Category options to specifically select books for sale in appropriate categories.
3. Condition options to choose condition of book
4. Generate Price button based off book title and condition to display original and selling price.
5. List my book button to list book on sale once Title, Quality, and Genre are selected. Price must be generated first before listing a book on sale.

When a book seller accesses Sparky's Book Service, they're first prompted to log in with their ASU ID and password at the initial login page. Once authenticated they're directed to the Seller's page which consists of a list for titles of book and options to categorize listings of books on sale based on their category, condition, and title.

- Once the seller enters all the information for book listing and a price has been generated for the book based on its condition. Sellers can list their book by pressing the list my book button.
- Buyers available book list is then updated with the new book listing from the Seller's new listing.

Admin's View

Stakeholders' Requirements: The admin's page should have the following –

1. Listing of all transactions (i.e. Book Sale history)
2. List of Buyers and Sellers allowing to manage user accounts and their permissions.
3. Book list of Sellers, showing title, condition and price allowing for sales statistics.
4. Account Search feature with text fields for name and account type (ex: buyer, seller, admin) to access account permissions.

When an admin accesses Sparky's Book Service, they're first prompted to log in with their ASU ID and password at the initial login page. Once authenticated they're routed to the Admin Page, This page features three lists, sale history of most recent transactions, Buyers and Sellers names, list of best sellers with book title and price. Then an account search feature at the bottom of the page to search account name and type to access account permissions. Once an account is searched the history of the account is viewable and the role of the account can be changed to either Buyer, Seller, etc.

- Whenever an admin attempts an account search both the user ID and role must be correct within the text fields or else an error message displaying either invalid user ID or role.
- Customer names are also recorded within the recent transactions list and will be recorded within the user's account history.

Non-Functional Requirements

Sparky's Book Service will include non-functional implementations built within the system to provide a better user experience of the service; these requirements include –

Performance

- Optimal system design to ensure fast response between searches and transactions.
- Concurrent access support allowing multiple users to access the service at once.

Security

- Secure user authentication implemented, allowing only authorized users to access the service.
- Data protection for user information and transaction details.
- Safeguards are in place to protect against potential security threats such as SQL injections, XSS, and CSRF.

Scalability

- The system is built to scale being able to support the increasing number of users and number of transactions as the user base for the service grows.
- System Architecture allows for easy support in implementing new features and functionals for future updates of the service.

Reliability

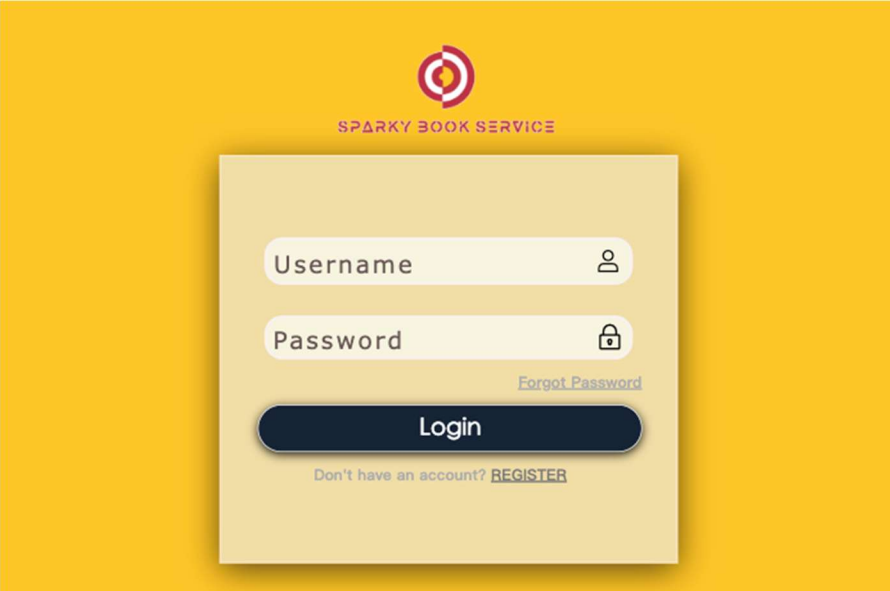
- Error handling and logging mechanisms implement to ensure the system can deal with unexpected errors accordingly
- System design allows for high availability, and hotfixes to minimize downtime allowing users continuous access to the service.
- Data backups implemented and updated regularly to protect against data loss.

GUI Walkthrough:

Human Interface Design:

The user interface design for "Sparky Book Services" consists of four distinct pages: the login page, admin page, seller page, and buyer page, each with specific functionality. The system starts by prompting users to log in using their ASU ID, directing them to the appropriate page based on their role. Buyers can browse books by genre and condition and make purchases from the available listings. Sellers can list their books for sale, setting the title, price, genre, and condition for potential buyers. The admin page handles the management of customer purchase data and oversees seller inputs, including pricing and book details. This design creates a smooth interaction between buyers, sellers, and administrators, facilitating easy book transactions.

- Login Page:



Welcome to the Sparky Book Service login page. Here, you can securely access the platform by entering your ASU ID and password into the provided fields. Initially, the “Login” button will remain inactive until both fields have been filled in. Once you’ve entered your credentials, you can press the “Login” button to proceed. If the information entered does not match our database, an error message will be displayed, prompting you to re-enter your details. If you’ve forgotten your password, simply click on the “Forgot Password” link below the login form to reset it. Additionally, if you don’t have an account yet, you can create one by selecting the “Register” text link to sign up and get started.

- **Admin Page**

Admin Page (Account Search)

Add Account

Name

Password

Add Admin

Search Account

Harry Potter 1
Harry Potter 2
Harry Potter 3
Harry Potter 4
Harry Potter 5

Search User

When the admin logs in to Sparky's Book Service the page they see first is the Account Management menu. This page acts as a search account and manages page where admins can add current users of Sparky's book service as an admin on the left and are able to search any accounts currently registered within the system. The search account feature allows for autofill completion of user's account making it easier for the admins to search for the account they're looking for. From there they can manage the user's account and view details. The other admin pages can be accessed by the top yellow buttons on the page for example clicking on the statistics page brings the admin to the next menu of the account management page and pressing on the System Configuration button takes the admin to the System Configuration menu.

My Account

System Configurations

Account Management

Logout

Admin Page (Account Search)

10-23-2024

10-26-2024

Statistic Book

Statistic Revenue

Heavily Used

[Genre]

Transaction ID 1 – 10/23/2024
Transaction ID 2 – 10/23/2024
Transaction ID 3 – 10/23/2024
Transaction ID 4 – 10/23/2024
Transaction ID 5 – 10/23/2024
Transaction ID 6 – 10/23/2024
Transaction ID 7 – 10/23/2024
Transaction ID 8 – 10/23/2024
Transaction ID 9 – 10/23/2024
Transaction ID 10 – 10/23/2024
Transaction ID 11 – 10/23/2024
Transaction ID 12 – 10/23/2024
Transaction ID 13 – 10/23/2024
Transaction ID 15 – 10/23/2024

Show Details

This is the statistics page, it is an extension of the original account management page that can be accessed once the admin clicks on the statistics button at the top while viewing the account management page, this opens the list of transactions made on Sparky's book service on the right with the ability to view the transaction details. On the left of this page is where statistics are generated based on the list of transactions. The two types of statistics that can be generated are based on book revenue and statistics of the book themselves. These statistics can be filtered by date, book condition, and book genre.

Logout

System Configurations

Account Management

My Account

Admin Page (Systematic Configuration)

Edit Formula

Old Formula

Slightly Used	Price = $(0.9 * \text{current_price})$
Moderately Used	Price = $(0.75 * \text{current_price})$
Heavily Used	Price = $(0.5 * \text{current_price})$

New Formula

Slightly Used	Price = ()
Moderately Used	Price = ()
Heavily Used	Price = ()

Update

Approve Books

Picture

Harry Potter 1

Details

Picture

Harry Potter 2

Details

Picture

Harry Potter 3

Details

Picture

Harry Potter 4

Details

Picture

Harry Potter 5

Details

Picture

Harry Potter 6

Details

Approve

Disapprove

The final menu available exclusively to admin users is the System Configurations page, admins can approve listings from sellers and view the details of the listings. They are also able to update how prices are automatically calculated. These formulas calculate the price of book listings based on their condition. Admins select one to multiple book listings to approve or disapprove with the approve or disapprove button below the list of book listings. If Admins want to update the current price calculation for books, they must enter the new formula calculating the price under the new formula section, then press update. These formula changes are then applied to any new listing made by a seller when calculating price.

- Seller's Page

My Account Switch to Buyer Account Logout

Seller's Page

Genre	Quality	Title
<input checked="" type="radio"/> Sci-Fi <input type="radio"/> Fantasy <input type="radio"/> Comedy <input type="radio"/> Drama <input type="radio"/> Thriller <input type="radio"/> Adventure <input type="radio"/> Mystery	<input checked="" type="radio"/> Used Like New <input type="radio"/> Moderately Used <input type="radio"/> Heavily Used	Harry Potter
	Price \$40 Generate Price	Selling Price \$ 36.0 (10% will go to admin)

List My Book

When accessing the seller's page, the system retrieves and updates the seller's information from the database. The page features several input fields and options for listing a book.

1. **Genre Selection:** Sellers first select the genre of their book using a set of radio buttons. Only one genre can be selected at a time.
2. **Book Quality:** Next, sellers choose the book's condition from three quality options, also using radio buttons. As with genre selection, only one quality can be selected.
3. **Title Entry:** Sellers then enter the book's title into the designated text box.
4. **Price Input:** The final step involves entering the book's price. This must be a numeric value; otherwise, an error will be displayed.
5. **Price Generation:** Clicking the "Generate Price" button calculates and displays the suggested selling price. Sellers can review this price and decide whether to proceed. If dissatisfied with the price, they can log out, which will cancel the listing.

Listing Confirmation: If the seller agrees with the suggested price, they proceed by clicking the "List My Book" button. This action finalizes the listing, making the book visible to buyers and updating the database.

- Buyer's Page

My Account

Switch to Seller Account

Logout

Purchase Books

Condition
☒ New
☐ Moderately Used
☐ Heavily Used

Genre
☒ Sci-Fi
☐ Fantasy
☐ Comedy
☐ Drama
☐ Thriller
☐ Adventure
☐ Mystery

Book - Price - Author	Picture
Book - Price - Author1	Picture
Book - Price - Author2	Picture
Book - Price - Author3	Picture
Book - Price - Author4	Picture
Book - Price - Author5	Picture
Book - Price - Author6	Picture
Book - Price - Author7	Picture
Book - Price - Author8	Picture

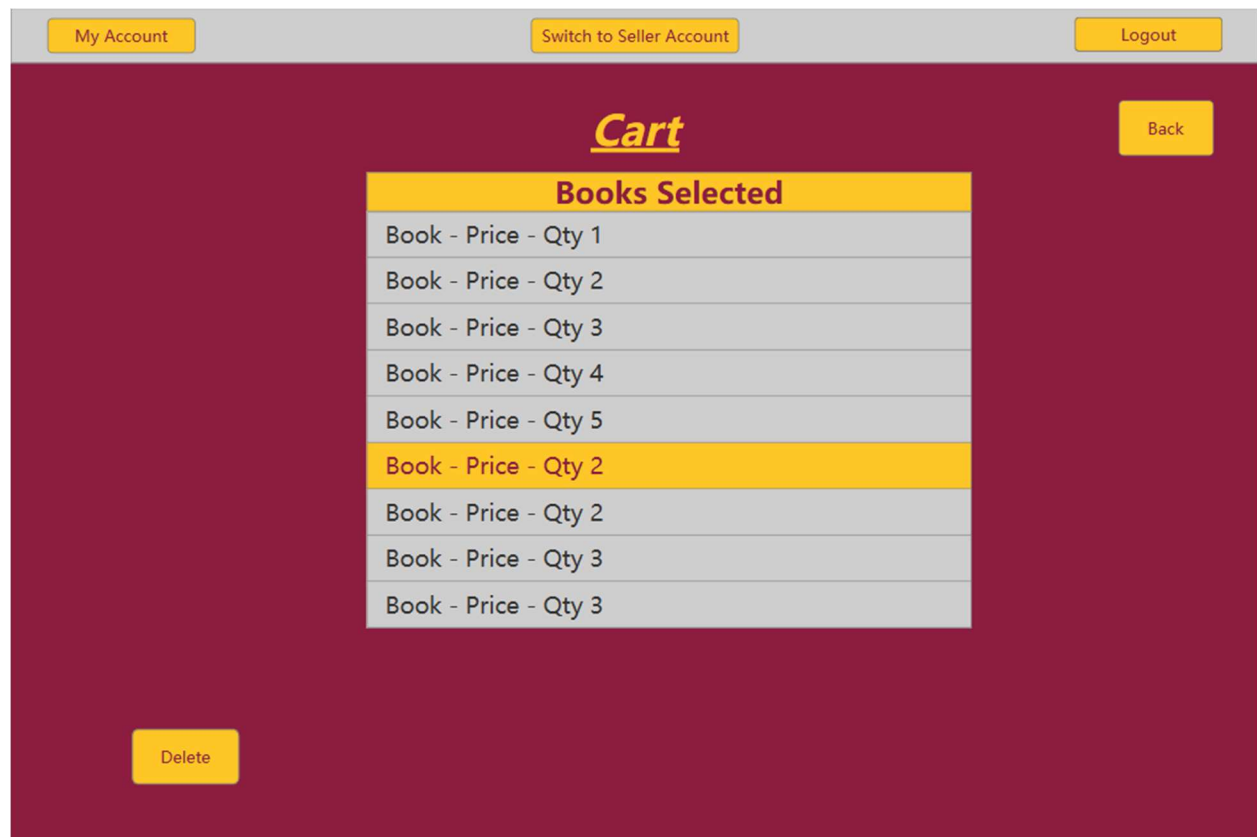
Add to Cart

View Cart

Cancel Order

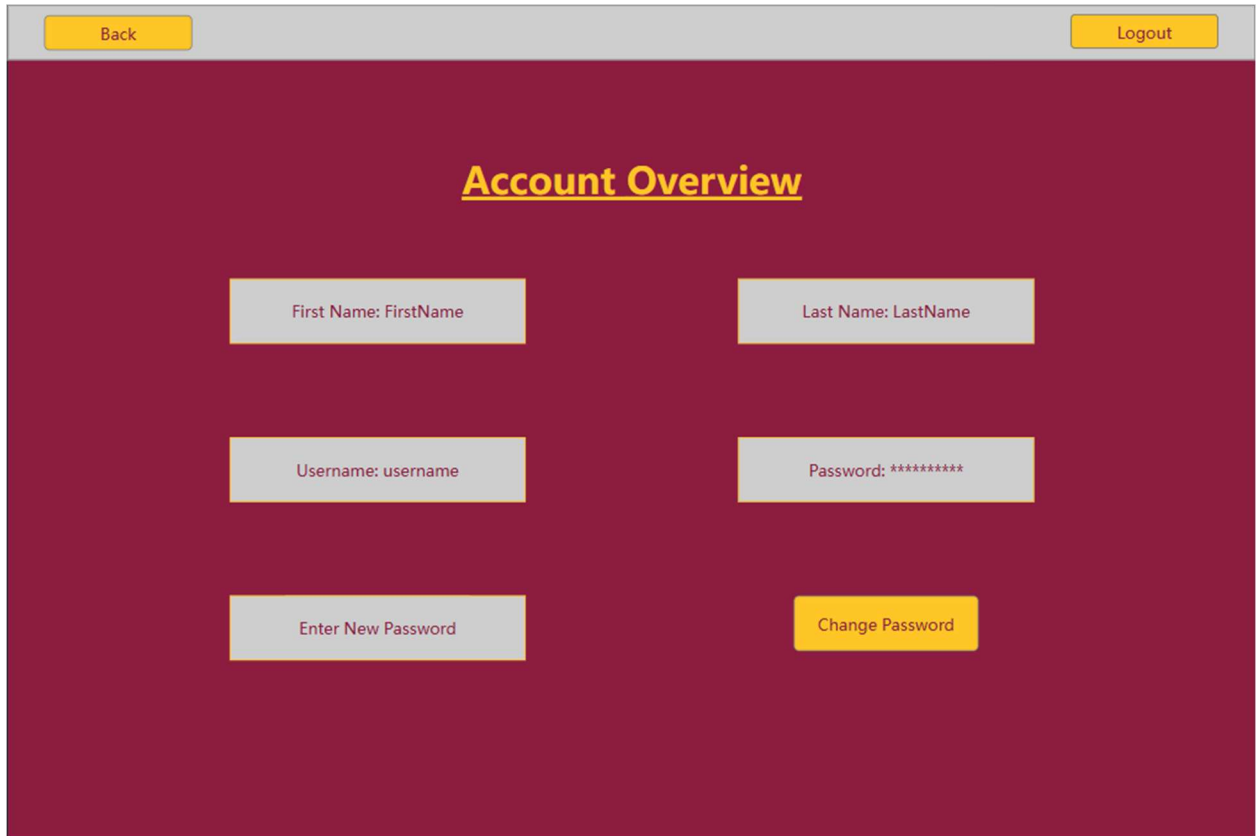
Order

When accessing the Buyer's page, the system retrieves the available books and displays them in the "Available Books" section on the right along with their price. The user can select a genre and the condition of the book on the left side of the application allowing for multiple search options. The list of available books presents the book title, pricing of the book listing, author name, and picture of the book cover are available by pressing the picture button. Once Buyer's select the books, they want to add to their cart they can view their cart with the view cart button below the search filter options.



This is the View Cart menu buyers are met with once pressing view cart. The cart shows a list of books selected with the book titles, price, and quantity of books. They're able to select books from their cart to remove from their cart by pressing the delete button in the bottom left corner of the Cart menu. Once Buyers are satisfied with their cart, they can press the back button at the top left of the cart menu redirecting the buyer back to the purchase books menu. They are then able to press the order button to purchase the books in their cart.

- My Account Page



The image shows a web page titled "Account Overview" with a dark red background. At the top, there is a light gray header bar containing a yellow "Back" button on the left and a yellow "Logout" button on the right. The main content area is centered and contains several light gray rectangular boxes with yellow borders. The first row has two boxes: "First Name: FirstName" on the left and "Last Name: LastName" on the right. The second row has two boxes: "Username: username" on the left and "Password: *****" on the right. The third row has two boxes: "Enter New Password" on the left and a yellow "Change Password" button on the right.

All user's have access to my account page which can be accessed anytime after logging in by pressing the "My Account" button on the top left of any of the pages. This page gives the user an overview of their account allowing them to change their password, view their account details such as first name, last name, username. When users press the Enter New Password button, they can fill in their new password after entering their previous password. Then by pressing the change password button the account's password will be updated.

Credit Sheet – Group 23

Team Member Name	Contributions
Harsh Nirmal Dhiran	20%
Rahil Shaik	20%
Saikrishna Vinapamula	20%
Robert Blanco	20%
Nandhini Goripeddy	20%