User Stories Document

Overview

This document outlines the user stories for the application layer of the system, including the necessary unit tests. Each user story specifies the functional requirements for the application.

Story 1: User SignUp

Title: User SignUp

As a new user
I want to sign up with a username, password, and confirm password
So that I can create an account and access the system

Acceptance Criteria:

1. The user provides a username, password, and confirm password.
2. The system validates that the username is unique.
3. The system ensures that the password and confirm password match.
4. Upon successful validation, the system creates a new user account.

Unit Tests:

- Test that a user can sign up with a valid username, password, and confirm password.
- Test that the system rejects sign-up with an existing username.
- Test that the system rejects sign-up if the password and confirm password do not match.
- Test that the system creates a new user account upon successful validation.

Story 2: User SignIn

Title: User SignIn

As a registered user
I want to sign in with my username and password
So that I can access the system and receive a JWT token

Acceptance Criteria:

1. The user provides a valid username and password.
2. The system validates the username and password.
3. Upon successful validation, the system returns a JWT token.

Unit Tests:

- Test that a user can sign in with a valid username and password.
- Test that the system rejects sign-in with an invalid username.
- Test that the system rejects sign-in with an incorrect password.
- Test that the system returns a JWT token upon successful sign-in.

Story 3: Add Book

Title: Add Book

As a user
I want to create a book
So that I can add it to the system

Acceptance Criteria:

1. The user provides a title, author, and optional ISBN.
2. The system validates that the title and author are provided and their lengths do not exceed 150 characters.
3. The system validates that the ISBN, if provided, is either 10 or 13 characters long.
4. Upon successful validation, the system creates a new book entry.

Unit Tests:

- Test that a book can be created with a valid title, author, and optional ISBN.
- Test that the system rejects a book with an invalid ISBN length.

Story 4: Update Book

Title: Update Book

As a user
I want to update a book
So that I can modify its details

Acceptance Criteria:

1. The user provides the book ID, title, author, and optional ISBN.
2. The system validates that the book ID is provided and exists.
3. The system validates that the title and author are provided and their lengths do not exceed 150 characters.
4. The system validates that the ISBN, if provided, is either 10 or 13 characters long.
5. Upon successful validation, the system updates the book entry.

Unit Tests:

- Test that a book can be updated with a valid ID, title, author, and optional ISBN.
- Test that the system rejects an update with an invalid or missing book ID.
- Test that the system rejects an update with an invalid ISBN length.

Story 5: Delete Book

Title: Delete Book

As a user
I want to delete a book
So that I can remove it from the system

Acceptance Criteria:

1. The user provides the book ID.
2. The system validates that the book ID is provided and exists.
3. Upon successful validation, the system deletes the book entry.

Unit Tests:

- Test that a book can be deleted with a valid book ID.
- Test that the system rejects deletion with an invalid or missing book ID.

Story 6: Get Book by ID

Title: Get Book by ID

As a user
I want to retrieve a book by its ID
So that I can view its details

Acceptance Criteria:

1. The user provides the book ID.
2. The system validates that the book ID is provided and exists.
3. Upon successful validation, the system retrieves and returns the book details.

Unit Tests:

- Test that a book can be retrieved with a valid book ID.
- Test that the system rejects retrieval with an invalid or missing book ID.

Story 7: Get All Books

Title: Get All Books

As a user
I want to retrieve all books
So that I can view a list of all books in the system

Acceptance Criteria:

1. The system retrieves and returns a list of all books.

Unit Tests:

- Test that the system returns a list of all books.
- Test that the list includes books with valid details (title, author, optional ISBN).