

CODE DOCUMENTATION

Abstract:

Openreads is a social cataloguing system that allows users to freely search its database of books and read reviews. Users can create a bookshelf and add the books they have written, read, or plan to read and get suggestions based on what their bookshelf contains. The app takes in user data to recommend books to users suitable to their interests. The model takes in relevant features (favourite genres, favourite author, age group etc.) to provide quality recommendations. For the core recommendation system model, the app uses methods like collaborative filtering. The app uses an existing database of book reviews to train our model and uses popular clustering techniques to find similarities among books based on various features as mentioned above. Another interesting feature is, Users with similar interests can make groups, share their favourites with others, share their thoughts, review books, and recommend it to other users as well.

Source Code:

<https://github.com/vaibhavb26/swe-project>

Code Functions:

Users

- register()- registers a new user with app.
- view_profile()- displays the profile of the user.
- edit_profile()- allows the user to edit the profile.
- addShelf()- adds a shelf for the user.
- removeShelf()- deletes a shelf from user's feed.
- myShelves()- lists all the shelves which user is part of
- myShelf()- lists details of the shelf queried.
- addBookToShelf()- adds a new book to the shelf.
- removeBookFromShelf()- removes a book from the shelf.

Books

- details() - lists the relevant details of the book.
- search()- lists the top relevant books in response to query.
- userRateList()- updates the avg rating for books.
- allBooks()- lists all the books genre wise.

Groups

- `create()` - Creates a novel group.
- `join_group()` - Adds a new user to the group.
- `leave_group()` - Removes a user from the group.
- `write_message()` - Posts a message in the group chat.
- `display_msgs()` - Lists the messages in the group.
- `details()` - lists relevant details of the group.
- `addShelf()` - adds a new shelf in the group.
- `removeShelf()` - removes a shelf from the group.
- `groupShelves()` - lists the shelves belonging to the group.
- `addBooktoShelf()` - adds a new book to the shelf.
- `removeBookFromShelf()` - removes a book from the shelf.

Model

- `recommendations()` - returns the list of recommended books based on input features.