

Usability Report for Book Rating System
SWE632-Spring 2014
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Project Link:
<http://anupkalburgi.in/brs/swe632/>

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1. Interface Goals:

Better user performance without effecting “Time to learn” and “Retention of skills” factors. The user interface (UI) is primarily designed keeping novice and intermediate users in mind. UI mainly uses user’s visual understanding/mapping of the subject matter as primary mode to communication, enabling faster performance.

2. User Profile:

In general site was designed with an assumption that a visitor has some “Computer Science Background” (i.e. familiarity with computer science terms like programming, databases, web design and so on). Hence forth in this document, when we refer to “user/visitor” it means “a user with some computer science background”.

Age was not considered as major factor for design decisions due to the fact that this system would attract users from all age groups. Instead experience with computer system was considered

The interface built mostly caters to novice and intermediate users. Definitions of novice and intermediate users are as given below:

Novice/ Intermediate users:

Little computer skills, computer experience and fair understanding of computer science terms like programming, operating systems, databases etc. Technically someone who knows and understands what subject is about, but not to an extent where he/she can make decision about a book solely on bases of code coverage, no of pages, reviews etc.

The user has marginal or no syntactic and semantic knowledge about computers and book ratings systems in general.

Novices are most of the times are looking for assessment than assertions (they are looking for decisions not opinions).

Expert Users:

Has familiarity to books/commodities related websites functions like, (may be familiarity with sites like amazon.com). Fair knowledge of what one is looking for and how the books are evaluated.

Intermediate user is assumed to have syntactic knowledge of browsers and computers in general. Syntactic knowledge about how book technical books are rated is assumed.

Intermediate/Advanced user would look for assertions than assessments, they like to read reviews and opinions about the book along with its technical details.

3. Interface Goals And Screen Design Decisions:

Shneiderman's Criteria - assigned importance and associated design decisions.

Time to learn – 1:

Is taken as primary concern for all design decisions reasons being.

- Given that a user would not visit this site on a daily basis, visitor should not be wasting time on learning very time he visits. Could be a frustrating experience.
- A novice can easily get lost if takes too long to get started with

Design decisions minimizing time to learn.

- Maintains the user syntax. Like on hovering change of pointer, starts to communicate rating of a book, hyper link's default behavior. Example1 below demonstrates the use of user syntax
- Clear distinct side bar menu, with contextual changes to it.
- Consistency in design across the site.

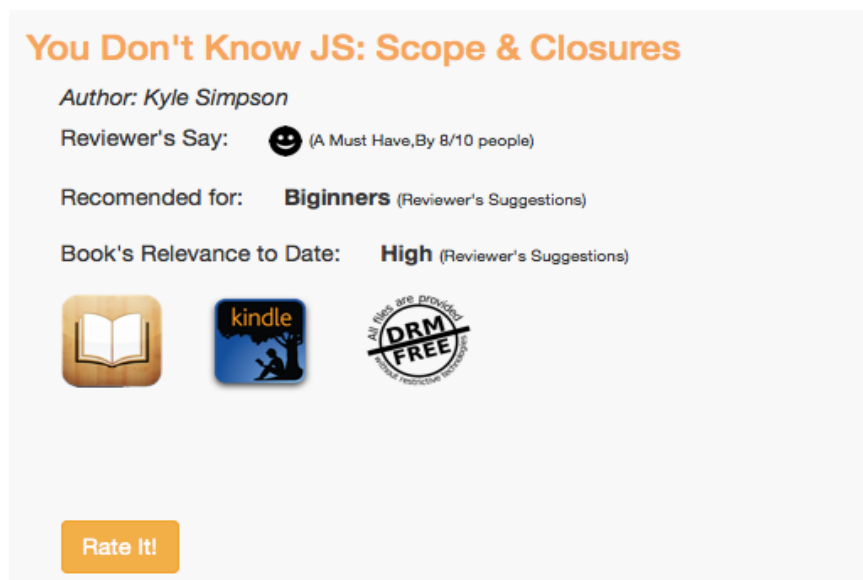
Speed of performance - 2:

Enabling user to find rating of a book and reviews with minimal of click or keystrokes is important as

- We know why a user has come in, it's either to rate a book or find out about a book. It would be no pleasant experience when user has to just spend minutes just searching for books its not physical library after all.
- Users give up search for a book within first few minutes, they just move on.

Design decisions improvising speed of a user

- Color combinations are maintained (like orange fade) is used to display prominent information on site. Especially the ones would miss user attention and is important
- Side menu items most of the time would need just a glance, instead of reading full item, as we have prominent icons to communicate the meaning of the menu items.
- We have graphical representations to convey if a books is Available in Paper back, Kindle and if its DRM free and so on. A screenshot attached below.



(Example1 Demonstrating Combination of Visual and textual elements to enable better performance speeds)

Retention of skills - 3:

Retention of skills takes a lower importance next to speed of performance

- Given the time to learn, interface does not force a user to retain much of “How to use”.

Design Decisions regarding Retention of skills

- Consistency in design across the screens.
- Adherence to basic user syntax

The image shows a user interface for rating a book titled "You Don't Know JS: Scope & Closures". It features three horizontal sliders for "Code Examples" (81), "Relevance" (87), and "Depth Covered" (90). Below these are three questions with radio button options: "Have you Read it?" (Read it), "Do you own it?" (Own It), and "Would you Recomend to a Freind?" (YES).

Category	Value
Code Examples:	81
Relevance:	87
Depth Covered:	90

Have you Read it? ☒ Read it

Do you own it? ☐ Own It

Would you Recomend to a Freind? ☐ YES

(Example2: Avoiding user error by eliminating necessity to type in values)

Rate of user errors – 4:

Individual user errors take a lower importance as,

- Displayed user rating on the ratings page is aggregate of the ratings, so would now have a huge impact on the overall rating
- And ratings without a comment are usually subjected to moderation.

Design decision to avoid User Errors:

- Type is totally absent in the process of rating a book. Hence eliminating a major probability of error occurring.
- As the ratings are ranges based, minor deviations from intended user rating does not change the meaning of the overall rating. Refer example Example2

Subjective satisfaction - 5:

As Subjective stratification tends hard to be measured, this is been given the least importance

Design decisions taking care of Subjective Satisfaction:

- Logos representing particular technology adds to some degree of satisfaction
- Color choices to indicate completed tasks.

4. Rating system:

Rating system choice (Why 5 star rating was chosen):

5 star rating can be found everywhere. It is a standard rating scale that's being used by popular marketplace sites like Amazon and most app stores. Because this system is so common, it is intuitive to average users in terms of how they interpret and cast the ratings (clicking on desire number of stars). Visually, star ratings are very appealing and noticeable compare to number or text (number of reviews), therefore it is easy for users to scan and compare a list of ratings at once. Lastly, scale rating is extremely powerful and flexible because you can obtain feedback with great detail by increasing the number of scale level.

While it became almost a design pattern on marketplace sites, some designers argue that star rating is bad and ambiguous because users have different interpretation of each scale level and most of the time users either like something or they hate it. People also like to mentioned that YouTube switched from 5 star rating to a binary system, however it only demonstrated that their users were rating their videos in a binary way therefore it's logical for them to convert to a binary system and not necessary saying that binary rating is better than scale rating. Despite the flaws mentioned, star scale rating is extremely effective and should be used unless your user can benefit from a binary setup.

Considering that we cannot have absolute rating about code coverage, relevance and depth of subject matter in the textbook. The rating system in this project uses the aggregation technique to help novice user while presenting whole reviews to intermediate/advanced users.

Rating and their meanings:

To help novice users understand, a books summary provides the following

- Review's say; Conveys what users think about the book.
- A book is marked with three different levels
 - Beginner
 - Intermediate
 - Expert
- Relevance of the subject matter is calculated based on the aggregate of values for relevance slider. Quantifying the data

Rate Calculations:

A book is marked as Must have only when a book 10 reviews and 8 out of them think it is a must have, and a emotions is used to convey the same.

A book gets marked with different user levels based on the depth of the subject matter.

Aggregate for various levels based on Depth rating

Exceeds 80% (all reviews combined) gets a Expert level

60% - 80% gets Intermediate level

10-60% gets Beginner level

Relevance of subject matter usually signifies the relevance of subject matter to the present industry conditions.

5. Interface Screen Design and Usability Characteristics:

The following pages are arranged as per the flow of the applications. User after landing on the home page is presented with options to navigate along the menu system and to search a book. On a particular book details page user can view ratings, reviews or choose to rate a page.

Most of the design decisions were made with the following questions in mind

- What is the targeted audience?

One with some computer science background and browser familiarity

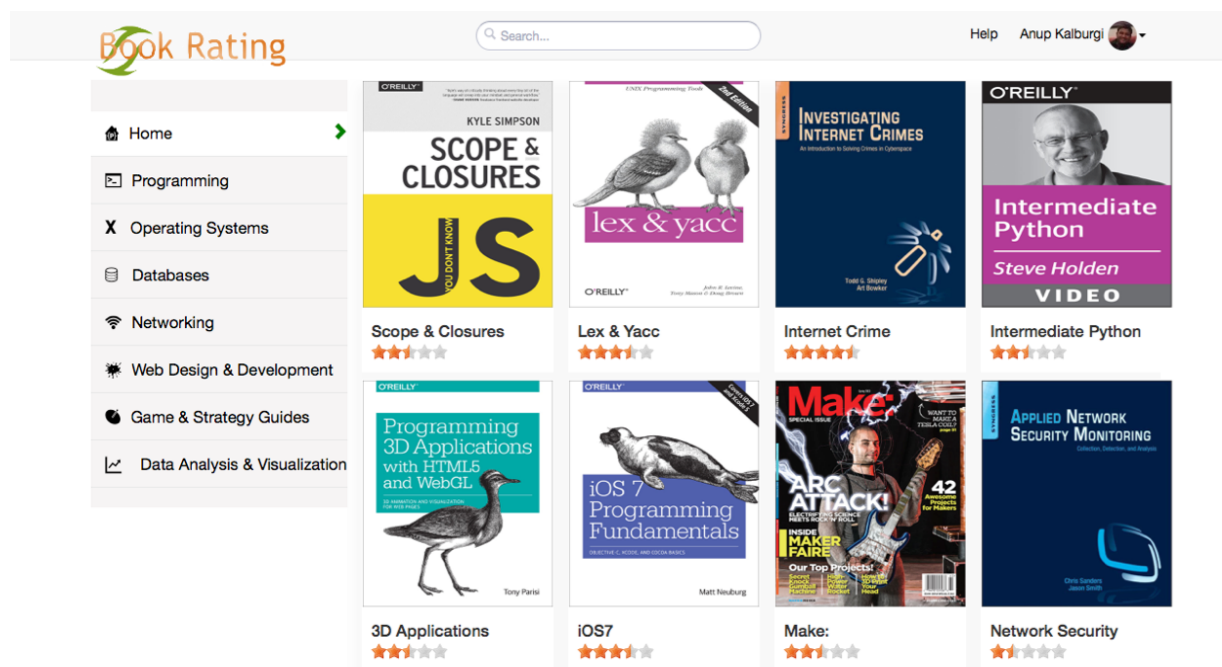
- Why would a user visit this site?

To find about a book or write a review and rate a book one has read

- How frequently a user would visit this site?

once in 15 days

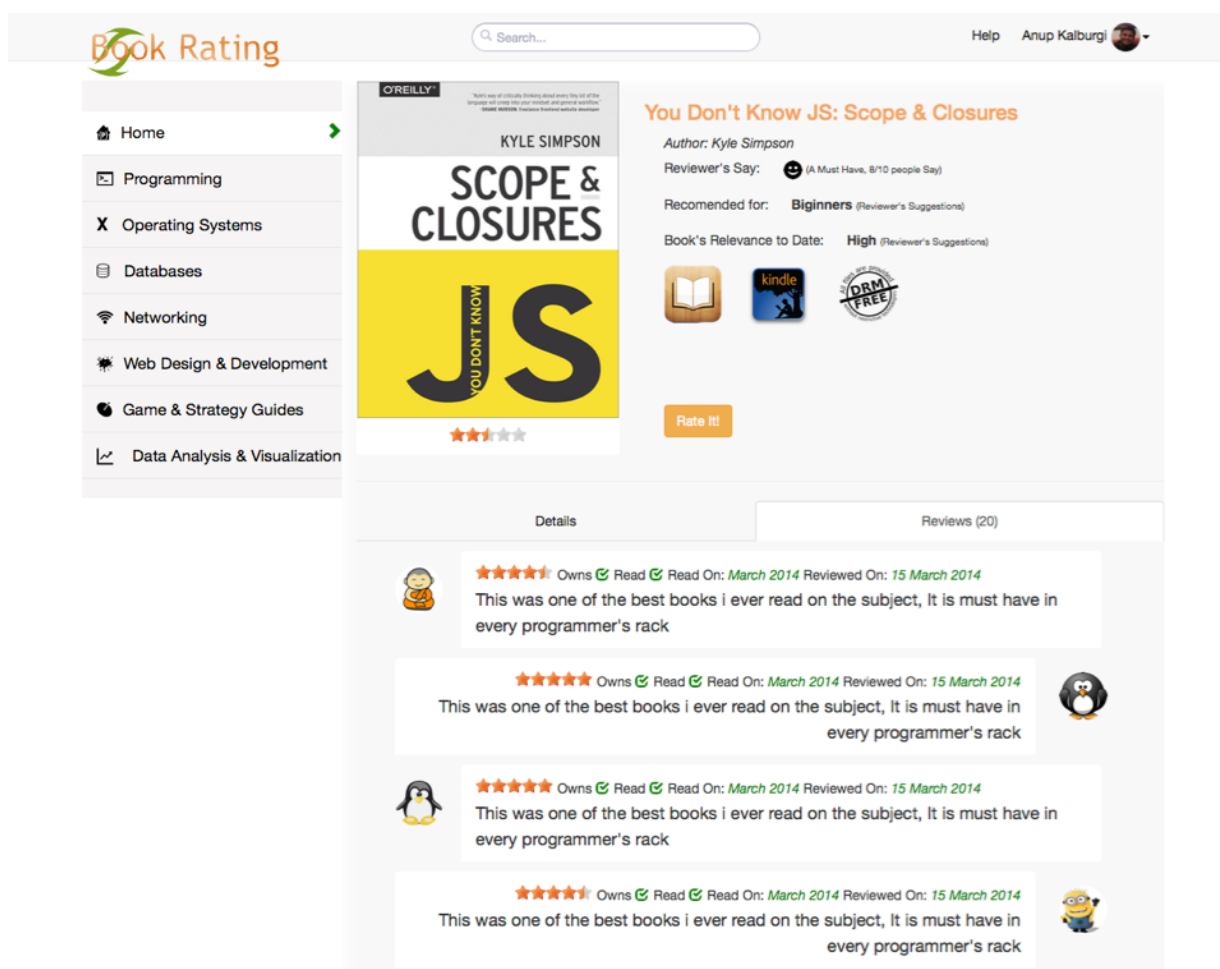
1. Home and Category specific page:



Design Considerations for screen (1)

1. Combination of visual and text based content to communicate various elements present on the screen.
2. Limited no of elements on the screen to 7+/-2. (7+or -2 rule)
3. The menu elements are arranged as per the popularity of the subject.
4. The menu elements change as per the context. A programming page would have all available programming languages in the system in its side menu.
5. Search immediately available with authors enabling faster usage for intermediate users
6. Avoided scrolling by limiting no of books displayed.
7. No horizontal scroll
8. Easy access to help and profile pages
9. Help is subdivided to categories and menus. Enabling faster navigation.
10. This design is consistent across the category pages as well

2. Book Details/Review Page:

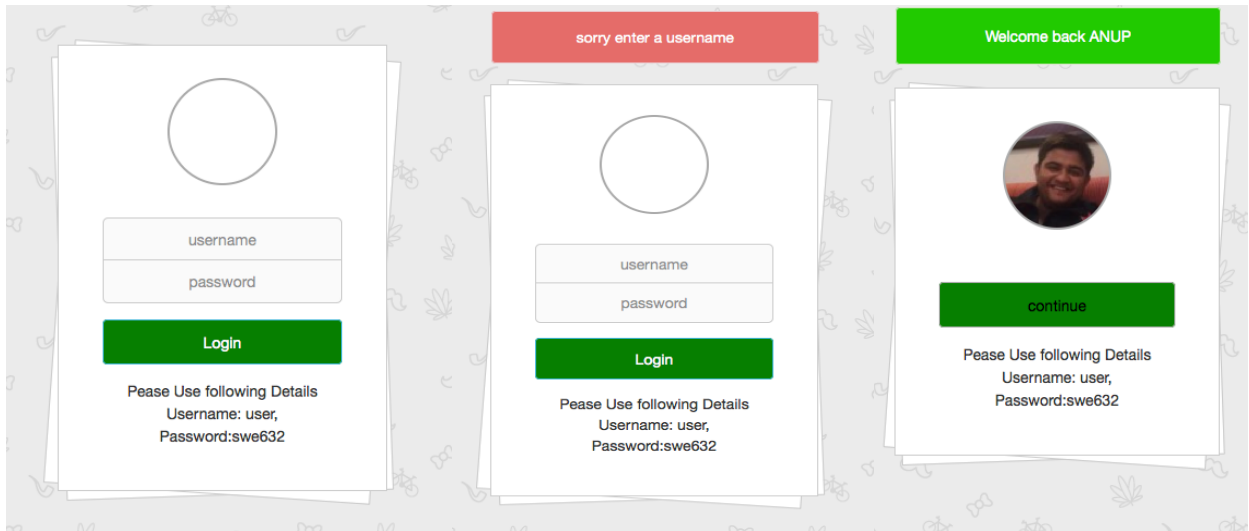


SCREEN 2

Design Considerations for screen (1)

1. Design consistency with rest of the pages.
2. Visual medium to communicate paper back, Kindle support and DRM.
3. Prominent button to rate a book. So that user does not keep searching for it.
4. Reviews with all the relevant details. Visible distinctly
5. User reviews along with the profile images and link to users public profile.

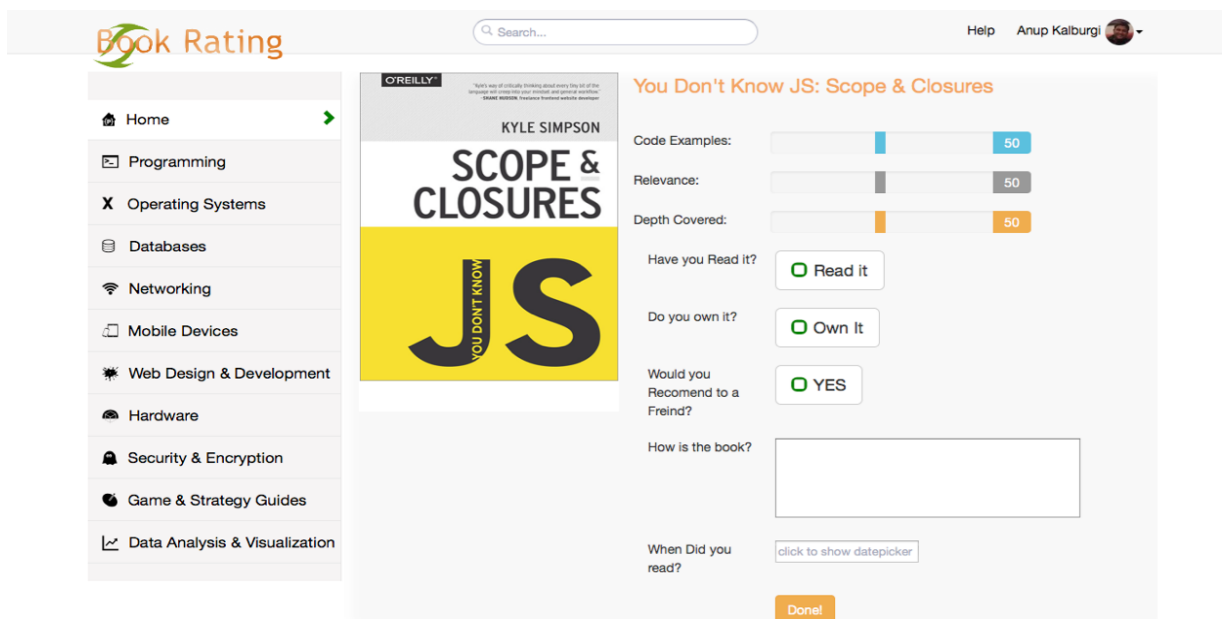
3. Login:



Design Considerations:

1. Immediate and constructive feedback
2. Time to validate the self-account via image. Add subjective satisfaction.

4. Rating Page:

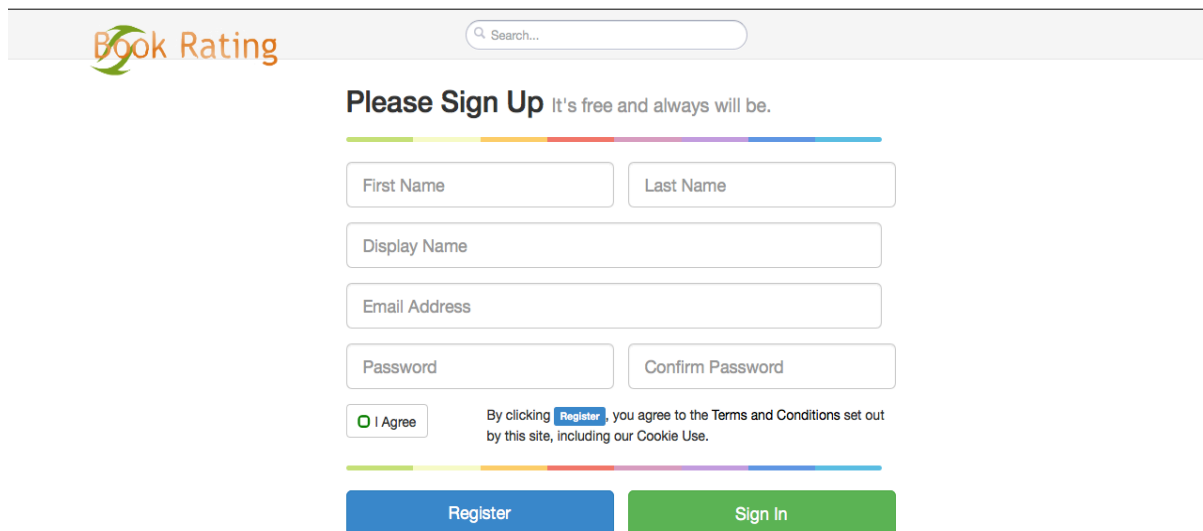


SCREEN 3

Design Considerations for Screen 3:

1. Avoiding user errors is the main point of consideration here. Other than comment section there is no way a user can commit a mistake while rating a book here.
2. Sliders are used to rate different accepts of a books
3. The default check buttons have been modified to appear big and appealing to the user.

5. User Registration Page:



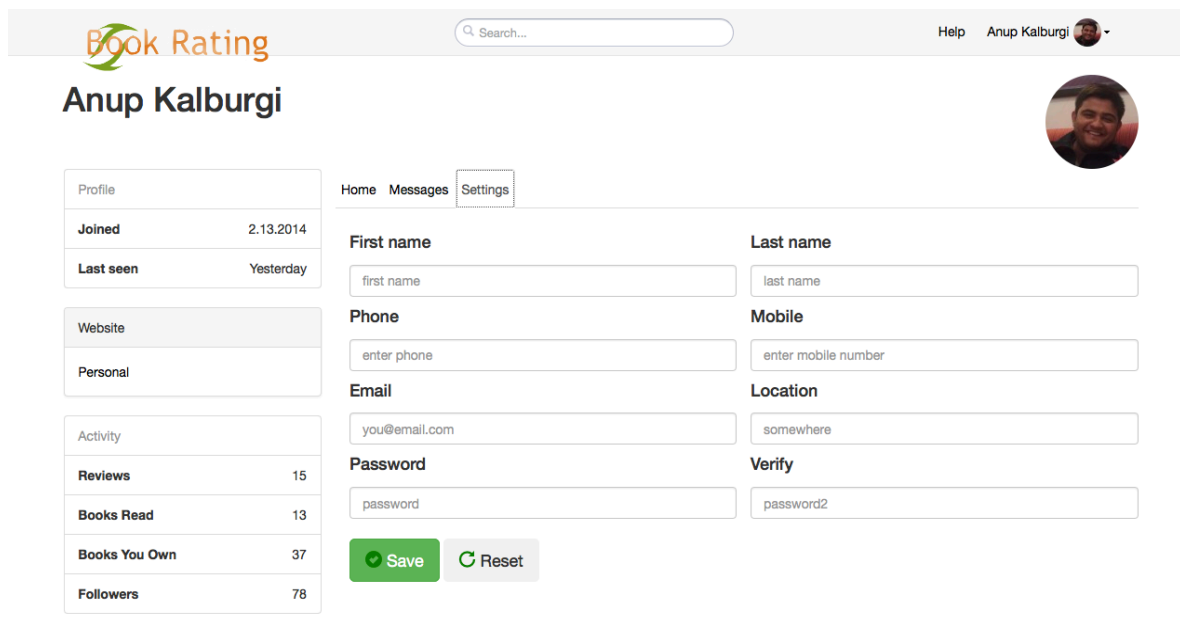
The screenshot shows the 'Please Sign Up' page for 'Book Rating'. It features a search bar at the top, followed by the heading 'Please Sign Up' with the tagline 'It's free and always will be.' Below this is a series of input fields: 'First Name', 'Last Name', 'Display Name', 'Email Address', 'Password', and 'Confirm Password'. A checkbox labeled 'I Agree' is present, with a note stating that clicking 'Register' implies agreement to the Terms and Conditions. At the bottom, there are two buttons: 'Register' (blue) and 'Sign In' (green).

file:///Users/anupkalburgi/Dropbox/2nd-sem/SWE632/new-brs/index.html

Design Considerations:

1. Color combinations to keep the user alert as one is involved keying in sensitive information.
2. Consistency in the check buttons, click buttons and color-coding.
3. Text input boxes clearly indicating what is expected from the user
4. Submit buttons clearly stating the purpose of the page.

6. User Profile Page:



The screenshot shows the 'User Profile Page' for 'Anup Kalburgi'. The page has a header with the 'Book Rating' logo, a search bar, and a user profile picture. The main content area is divided into two columns. The left column contains a 'Profile' section with fields for 'Joined' (2.13.2014) and 'Last seen' (Yesterday), a 'Website' section, and an 'Activity' section with a table of statistics. The right column contains a 'Settings' section with fields for 'First name', 'Last name', 'Phone', 'Mobile', 'Email', 'Location', 'Password', and 'Verify'. At the bottom of the settings section are 'Save' and 'Reset' buttons.

Activity	
Reviews	15
Books Read	13
Books You Own	37
Followers	78

Design Considerations

1. Easy ways to update the data user while registration.
2. Easy access to publicly visible information.
3. Prominent user picture on the screen adding to subjective satisfaction.

6. Features:

Once that were planned and implemented:

- Search with immediate results along with a distinct details about the book, which can help user make decisions about correct ness of the result.
- Aggregation of ratings to make suggestions regarding suitable levels for a book.
- Minimal number of clicks to search or reach a book.
- Search adapts to common errors in the user input. General spelling mistakes are taken care of.
- Minimal color usage so as to improve time to learn factor.
- Visual mode of communication for user familiar terms like Kindle, Paperback etc.
- Consistency among main/category/search pages.
- Avoiding typed based entry and scrolling in either direction.
- Profile page, maintaining track of how many book a user has read, rated and so on.
- Registration page with minimal number of details for a user to get on to using site.

Planned and dropped after review:

- More parameter to decide rating of a book like, older books get a -1 by default. But after careful consideration this was left out as we most of the time have revisions of the same book
- Combinations of the Binary and star based rating was dropped due the factors explained above in the document. And also add to complexity of the rating system.
- More color usage to help some subjective satisfaction factor, but resulting more colors interface contributes to increase in time to learn.

Planned and was not implemented:

- Set of five stars and the variations in rating page, as the user rates the book by sliding the respective sliders. This would have added on to the immediate feedback factor of the website.
- A way to add non-existing books to the site.
- A voting mechanism to moderate the reviews posted by the users.
- Sending messages among the users.

Please Note: All the UI elements such as book, cover pictures, ratings reviews and values are used as placeholders to bring up and display the design decisions.

Project Link: <http://anupkalburgi.in/brs/swe632/>