

CSE 403, Spring 2011: Software Engineering
Assignment #1: Project Proposal
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SharingBooks

VISION

SharingBooks is intended to be a software application that can run on the Web or a Mobile device, which enables it users to share books they own among their friends. This aims to reduce the cost of purchasing increasingly expensive books when similar titles are desired within an existing social network. These books must belong to an individual in the group or the group as a whole. SharingBooks deals with this rather simple notion of sharing, unlike other solutions currently out there that foster trade-in, buy-back, or re-sale. SharingBooks promotes:

- (i) Social Networking among people who belong to a groups, clubs or community organizations.
- (ii) A growing sense of 'sharing' resources amongst the people.
- (iii) The idea that book-owners need not sell their books but pass them on to a friend, and could even find interesting books among their friends all the way.

PRODUCT DESCRIPTION

Each user will have an account in SharingBooks, and will create a profile that contains their basic information. The user will also add the books that they own and are wiling to share. Each book that is being shared will have one of the following status':

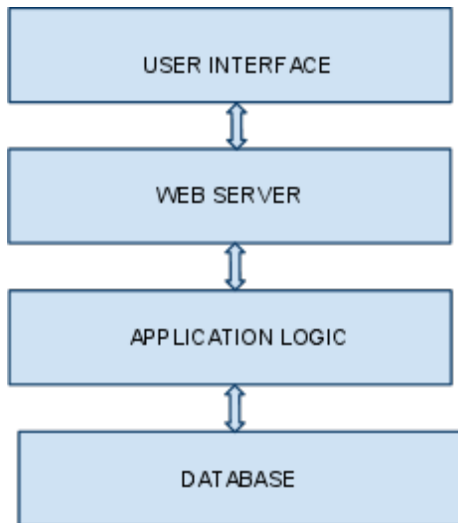
- (i) Reading - user is currently reading the book
- (ii) Available - this book is now ready to share with other users
- (iii) Booked - a user has booked this book
- (iv) On-the-road - the book is in transit.

When the book is On-the-road, there are primarily three modes of transit which are agreed upon by the owner of the book and the user trying to get the book:

- (i) Pick-up - The borrower will meet the owner of the book (or his/her agent) and pick the book up from a mutually agreed location.
- (ii) Drop-off - The owner (or his/her agent) will drop the book off at a mutually agreed location.
- (iii) Ship-it - The borrower will pay ONLY the shipping cost for the book to the owner via PayPal (or some secure means) and then the owner will ship the book.

SOFTWARE ARCHITECTURE

SharingBooks has a very fundamental four layered architecture:



User Interface: The User Interface will be clean webpage and will be built to run on various browsers. This could be implemented using HTML, CSS, or JS.

Web Server: This layer could use any secure, scalable, and flexible web server that are standard in today's market. ASP.NET MVC or IIS 7.0 are a couple suggested Web Servers that could be considered.

Application Logic: This layer is vital to ensure that the data from the User Interface layer reaches the Database. Even in cases when the business rules fail this layer will pick it up and send it to the User Interface. C# 3.0 or .NET 3.5/4.0 are a couple suggested tools that could be considered for this layer.

Database: The Database layer basically serves to maintain the user data for SharingBooks, a simple and standard Database design can be used for this application. MySQL and SQLSERVER are a couple of tools that can be considered to implement this layer.

USER INTERFACE DESIGN

The user interface provides easy access to the three primary uses of this software: The "Find" button allows users to browse or search for books within the network. The "Share" button allows users to update their own libraries. And the "Friends" button takes users to a forum-type area that allows discussion among users. The initial page a user sees when he or she logs in provides a summary of his or her recent activity.

RISK

The most serious challenge in developing this product is validation testing because the worth of the product is determined largely by a lot of (independent) people using it. We do not know exactly what each user would require from a system like this, so the product's test suite will have to be based on generalizations that might not accurately reflect reality. In order to minimize this risk, it is critical that the product be beta-tested with highly active users, who are willing to provide detailed feedback.