

## **Web Application Requirements**

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### **Description:**

Our web application is a third party book sharing service which brings users who want a particular book and users who have that book together. In this way, our library collection is put together by the users, for the users. When users sign up, they fill in their personal details and give a list of books they own; which is optional. After this, their details are integrated into the application and their collection becomes a part of our shared library. Users can add and remove books they want to share with the community. Now, two scenarios arise here:

**When a user finds a book they want to borrow**, they are linked with the best/optimum user who owns the book based on their proximity etc. If they agree to share, the book is marked as borrowed and transferred over.

**When a user receives a request to borrow a book**, they can accept or decline the transaction.

There will also be some superficial social networking and a scoring system for users based on their conduct.

### **Purpose:**

Our purpose is to create a community of book lovers who can enjoy each other's collections without having to worry about purchasing a book at full price or gaining access to a library.

### **Marketing:**

We plan to market our application through social media and at library spaces we have access to. Over here, a few flyers and vocal advertising would get the application some initial publicity. Eventually, once a user base is established, users are awarded bonus points or a credit score based on how vocal they are about publicizing borrows or shares. We hope that we can bring universities and publishers into the loop as well which would make the application a huge success. We have our own facebook and twitter pages encouraging the social online community to discuss and spread the benefits of using the application.

### **Target Audience:**

Students, anybody who loves to read books or is looking for a particular book.

### **Competition / Examples:**

Any library service, retail stores for books and even dealers on e-commerce sites such as Amazon etc.

### **Technical Requirements:**

1. Server type: HTTP server
2. Hypervisor: VirtualBox
3. Web Server: Apache/Nginx
4. Database: MySQL so that we can enforce a schema for our application.
5. Scripting Language: PHP
6. Support Libraries: Swiftmailer
7. Framework: Laravel
8. Access to server: SSH
9. Access to database: The database is set up locally and the users have access to both read from and write into the database
10. Security / Authentication: Using KMS and storing a BLOB.

### **Sitemap:**

Please find the [sitemap](#) here.

### **Web Architecture:**

Please find the [WebArchitecture](#) here.

### **Database design:**

Please find the [ERD](#) here.