Compassion By The Book (CBTB)

CSM CS Field Session, Summer 2013

Who We Are

Compassion by the Book (CBTB) is a non-profit organization founded by a Mines alum and operating on multiple campuses in Colorado. CBTB's mission is to teach college students a philanthropic mindset through hands-on experience. One of the principal programs of CBTB is textbook fundraising, wherein students collect used textbooks and sell them to raise funds for the cause of their choice. To date, CBTB's students have raised over $35,000 for about 15 causes.

You will have two contacts for this project.
1. Ian Littman (technical contact) / 830-456-0405 / iansltx+cbtb@gmail.com
2. Kurtis Griess (everything else) / 303-435-5831 / kurtis@compassionbythebook.com

Objective

Build a better workflow (in the form of a web application) for our volunteers to list books and fulfill orders, and for our administrators to keep track of these activities. The application will be tightly integrated with half.com, using their API at least and possibly scraping screens if their API doesn't provide a given function.

Specifically:
1. Given a book's ISBN and condition (very coarse: new/like new or used), populate relevant data about that book, to allow a volunteer "logger" to determine whether the book is worth selling. This information will include a price range of books found at Half, or at comparable sources.
2. Allow listing of a book on Half.com from within the CBTB system. Record the physical location of the book CBTB-side for use in fulfillment. Provide a volunteer "lister" with enough information to price a book, given its coarse condition (new, like new, very good, good, or acceptable) and description (finer-grained condition).
3. When an order for a book comes in, notify the volunteers associated with that fundraising campaign (organizations have campaigns; a volunteer belongs to one or more campaigns). Provide the same book information that was entered in (2), as well as the pre-made USPS shipping label collected from Half.com.
4. Allow CBTB administrators to see an organization, campaign, book or order's status, as well as other pertinent information. CBTB admins should also be able to create new users, and assign them to logger, lister and admin roles, as well as see what activities a given user has performed in the system.

The system should run on either a LAMP based shared host (e.g. BlueHost or HawkHost) or a Linux-based virtual server (e.g. Amazon EC2 or Digital Ocean). The technical client is most familiar with PHP / MySQL, but alternate languages/databases may be used.

Requirements

1. Ability to build back-end (PHP, Ruby on Rails, Node.js if you're adventurous, etc.) and front-end (HTML5, CSS, JavaScript) components of a web application. Frameworks (whether Silex, Twitter Bootstrap or jQuery) can...and should...be used.
2. Some familiarity with version control systems. You will be using Git with this project.
3. Experience working with third-party HTTP APIs (optional, but it will help significantly)
4. Strong communication skills; your technical contact will be remote.
5. Three or four people; this is a rather lengthy project, but division of labor should be relatively straightforward

Where/How You'll Work

No requirements, other than using version control religiously, getting work done and keeping communications channels open. Expect Google+ Hangouts a few times a week with the client, in addition to e-mails.