

The page features three decorative blue circles of varying sizes, each composed of concentric circles in different shades of blue. Two thin blue lines intersect at the top left, forming a large 'V' shape that frames the circles. The largest circle is at the top right, a medium one in the center, and the smallest one at the bottom right.

Team Dec 14-13

CySwap

Project Plan

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Problem/need Statement

The Government of the Student Body is aiming to develop a website that allows Iowa State Students to buy and sell goods. The site will allow for multiple types of items to be sold including: textbooks, furniture, clothes, tickets, places for rent, etc. Each type of post will need to be organized in ways that make sense for the type of item, for example, books will be searchable with ISBN number and the website should fill in all relevant information accordingly. The site will not handle the monetary transaction between students. It should instead be a way of connecting students. However, it should use a formalized procedure for contacting and completing transactions to allow for detailed reporting features. To build a strong sense of community, the web-site should be accessible through the use of netid (@iastate.edu emails).

System Block Diagram

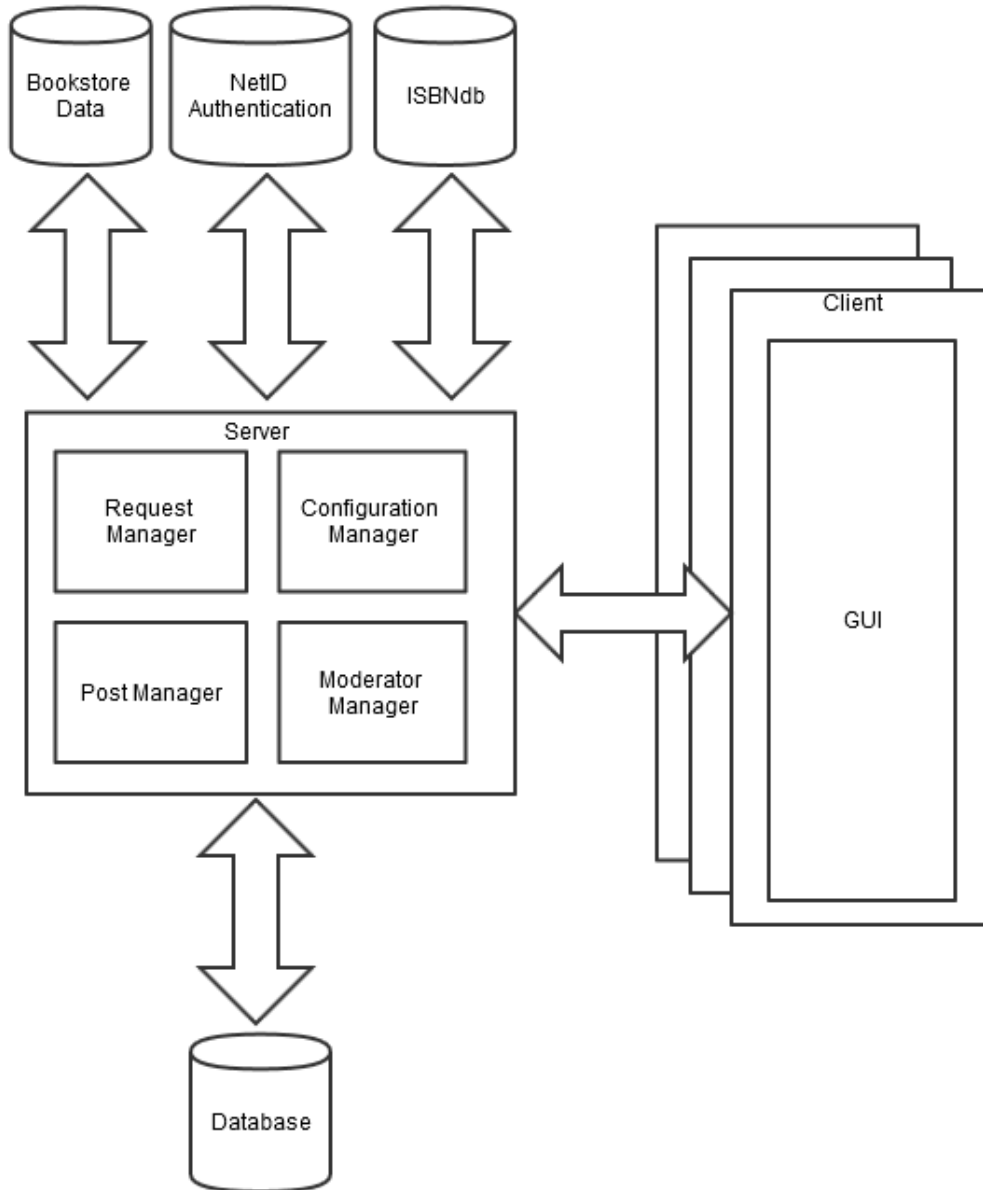


Figure 1-System Block Diagram

The server communicates with the database to get user data (such as account details and settings) and other necessary data. This data, along with other data (possibly from other databases) is used to generate a page. The pages will be generated using php. The system will communicate ISU servers for authenticating users. The client will communicate to the server through a session. The system will pull information about books given an isbn number using ISBNDB. The system will pull information for a course's textbooks from a dump of the bookstore's database.

System Description

We aim to develop a web based application to allow users to view and post listings for several different types of items for sale with fellow Iowa State students. Posts will be stored in the server's database for future access from any potential buyers. The users will be able to find posts relevant to them through search categories (books, tickets, furniture, etc.) as well as search filters (price, popularity, etc.).

The transactions will be handled independently from our system. However, the system will implement a formalized process for making contact with a seller to ensure accurate reporting statistics within our system as well as help automate post management (removing completed transactions and keeping track of item interest and popularity). Upon viewing a post, a user will be able to contact the seller via a "make an offer" button. They will then fill in a form that will allow the system to complete an auto-generated email to the seller with the offer. The system will keep track of this interaction and others like it to gauge interest and popularity of an item. If the post has not been closed a week after contact, our system will auto-generate and send an email to inquire if the transaction had been completed, and update internal information accordingly. Once a transaction is complete, automatically generated emails will ask the buyer and seller to submit feedback on each other. The system will keep track of the successful transaction in the database for reporting purposes.

When users post an item, the system will allow them to choose a category. Upon selecting a category the system will use an appropriate form to collect the necessary post information as well as help automate the process for items with standardized data ,for example, ISBN numbers for books will help auto-complete the majority of the form for the user. Upon the form completion the item will have a posting generated and stored within our database. The post will be accessible for any users searching for the item.

In addition, The Government of the Student Body will be able to use the system with additional functionality including: gathering reports on the usage of the system (general traffic, interest levels per category, successful transactions, average feedback per transaction, etc.) as well as adjusting high-level options to govern the system's operating procedures for high-level maintenance with minimal interaction at a coding level.

Operating Environment

Our website will be accessible on any browser and mobile friendly for phones running Android or iOS. We will have a MySQL database that will store information about users and store other necessary information. We also may be accessing the Iowa State Bookstore and Iowa State Athletics databases.

User Interface Description

Template Pieces

Header

- The header will consist of two rows. The top row will contain the logo, site name, search bar, and log in button.
- The bottom row will be the navigation bar. The main pages to navigate to here will be Home, Categories, Post an Item, Safety, and About Us

Footer

- The footer will contain links to Copyright information, terms of use, reporting content, and contacting the website managers.

Pages

Home Screen

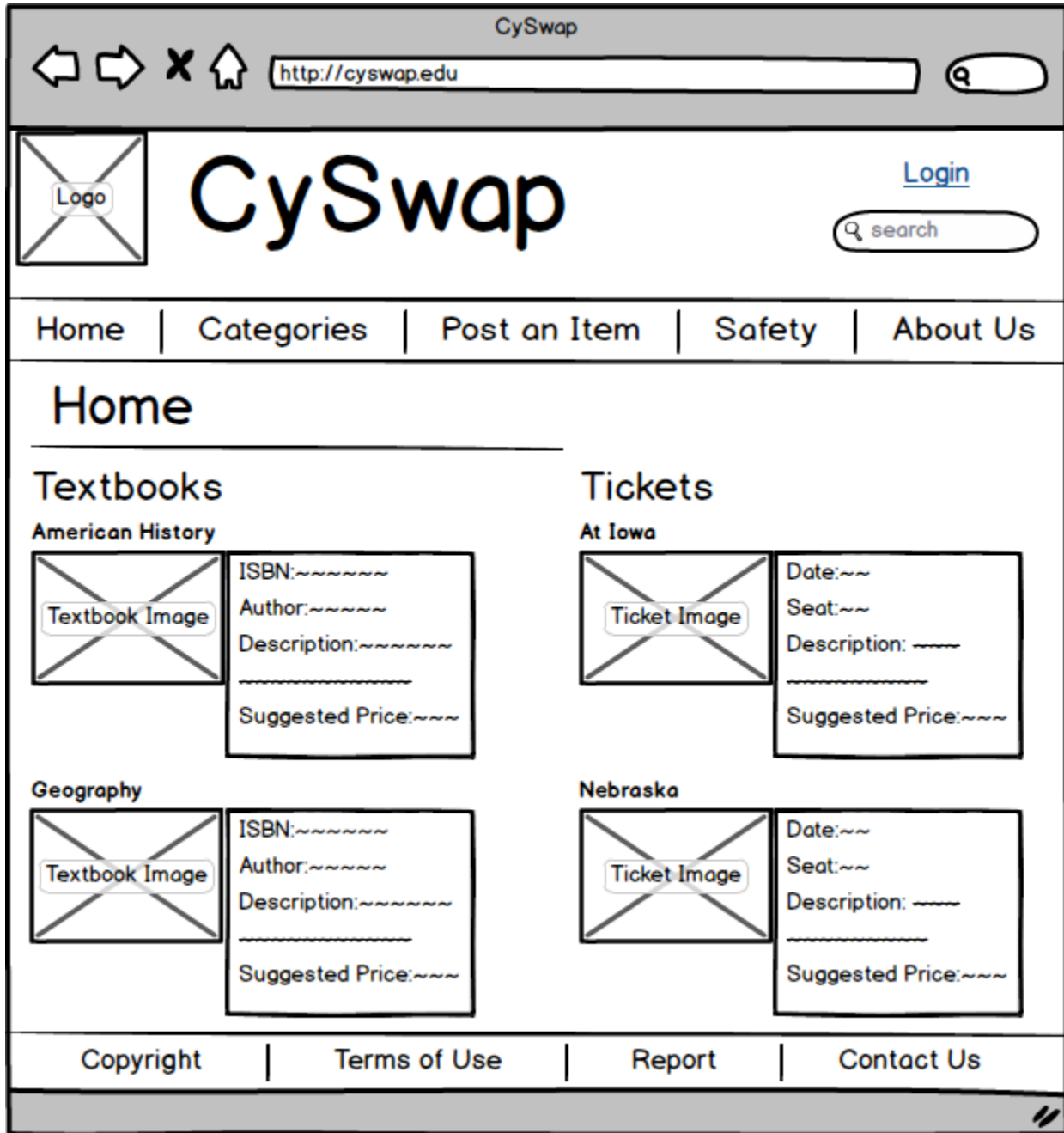


Figure 2- CySwap Home Page

Category Screen

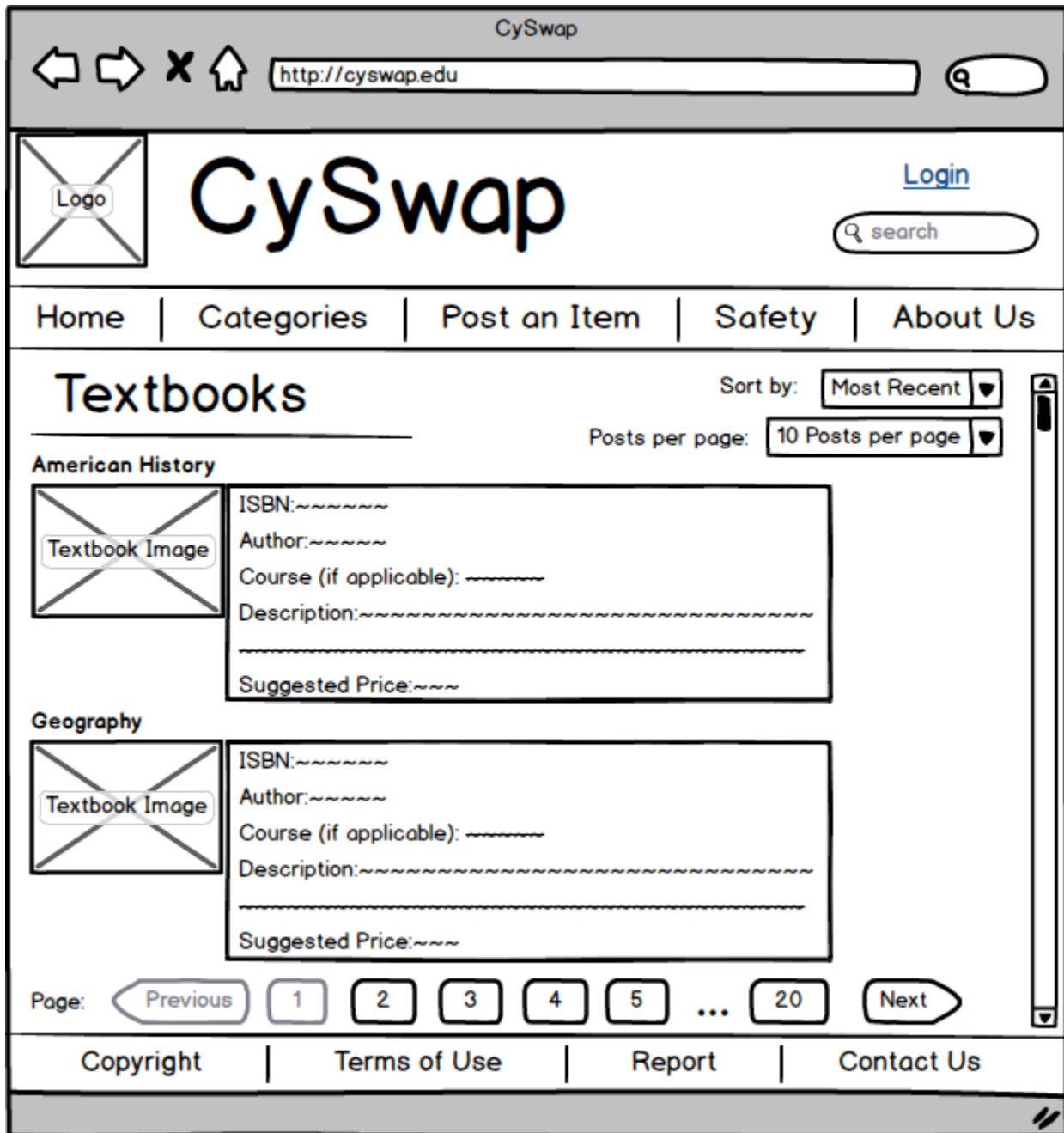


Figure 3- CySwap Category Page shows brief descriptions of several postings within a certain category.

Posting Screen

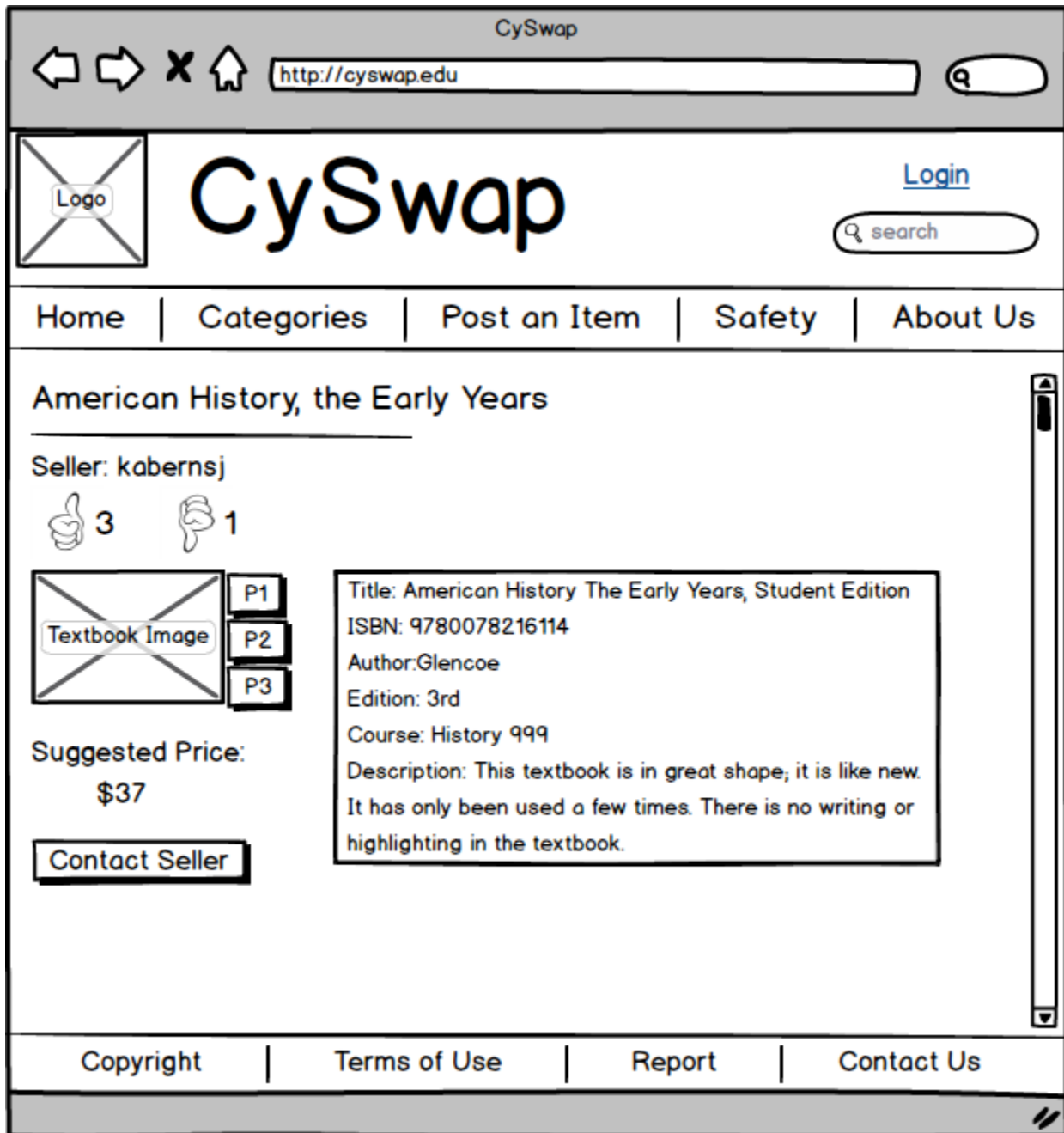
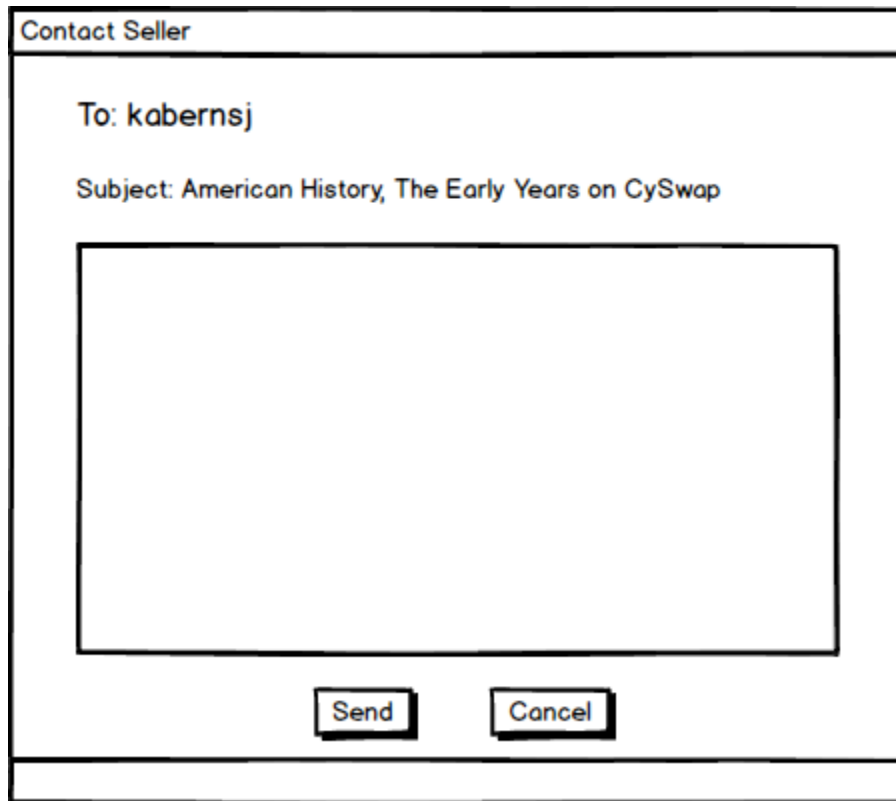


Figure 4- CySwap Posting Screen shows an individual posting.

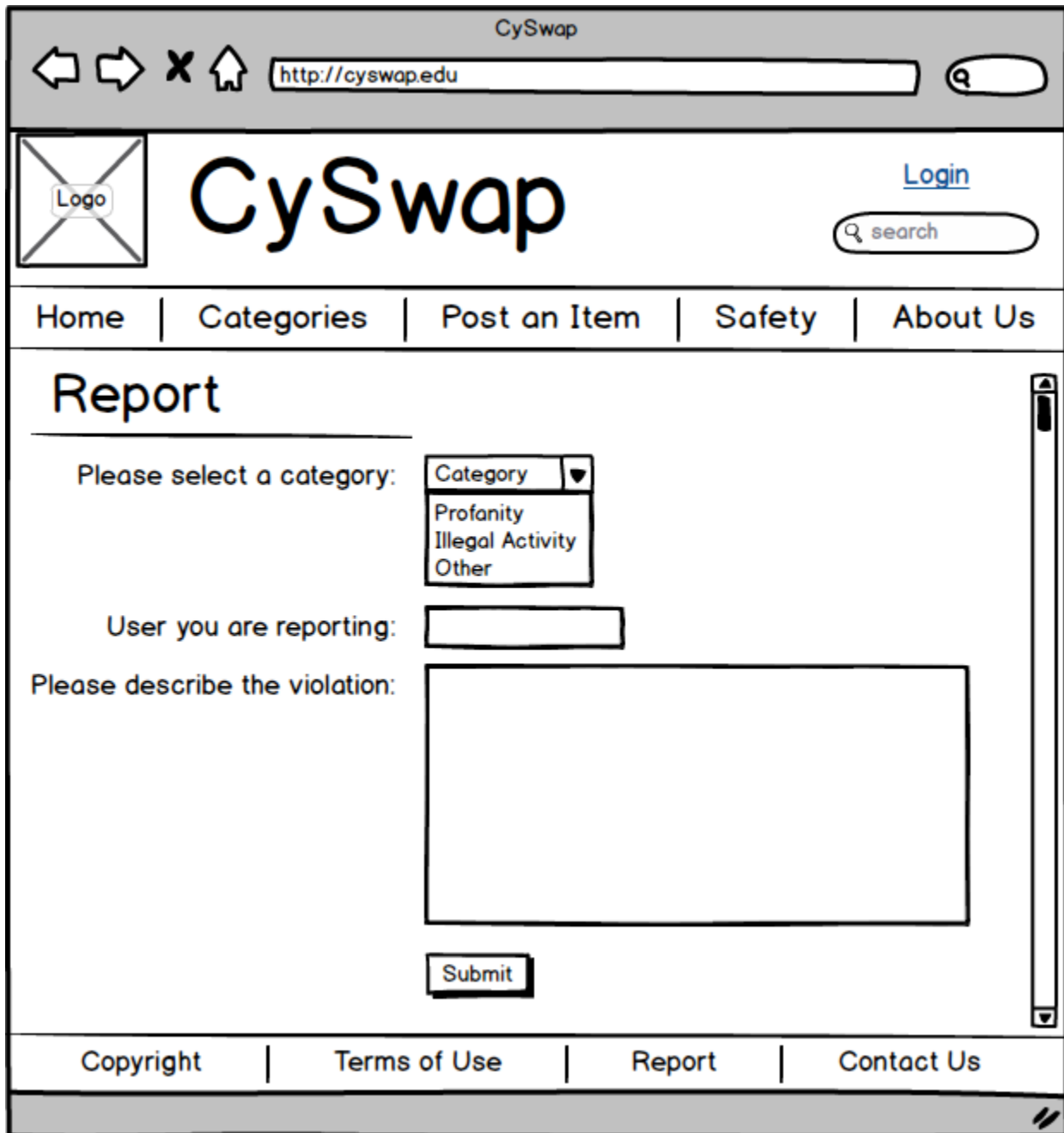
Contact Seller Popup



The image shows a 'Contact Seller' popup dialog box. It has a title bar at the top that says 'Contact Seller'. Below the title bar, there is a 'To:' field with the value 'kabernsj'. Below that is a 'Subject:' field with the value 'American History, The Early Years on CySwap'. In the center of the dialog is a large, empty rectangular box, likely intended for a message or file attachment. At the bottom of the dialog, there are two buttons: 'Send' and 'Cancel'.

Figure 5- Contact Seller Popup will appear when the 'Contact Seller' button from the previous screen is clicked.

Report Screen



The image shows a web browser window with the address bar displaying "http://cyswap.edu". The page title is "CySwap". The main content area is titled "Report" and contains the following elements:

- A "Please select a category:" label followed by a dropdown menu with options: "Profanity", "Illegal Activity", and "Other".
- A "User you are reporting:" label followed by a text input field.
- A "Please describe the violation:" label followed by a large text area for description.
- A "Submit" button at the bottom of the form.

The footer of the page contains links for "Copyright", "Terms of Use", "Report", and "Contact Us".

Figure 6- CySwap Report Screen is where a user can report behavior that is a violation of the site's terms of use.

Create a Post Screen

CySwap

http://cyswap.edu

Logo

CySwap

Login

search

Home | Categories | Post an Item | Safety | About Us

Post an Item

Please select a category:

Category

- Textbook
- Miscellaneous

ISBN:

Description:

Submit

Copyright | Terms of Use | Report | Contact Us

Figure 7- CySwap Create a Post Screen is where a user will post an item to sell.

Functional Requirements

FR-1	The system shall allow users to login and logout via Iowa State's NetID system.
FR-2	The system shall allow users to post items for sale and edit a previously post.
FR-3	The system shall allow users to search for posts based on specified criteria.
FR-4	The system shall allow users to view item postings.
FR-5	The system shall allow users to post comments on any posting.
FR-6	The system shall allow sellers to mark transactions as completed.
FR-7	The system shall allow users to contact sellers to initiate discussion on completing the transaction.
FR-8	After a transaction has been completed, the system shall allow users (buyer and seller in a specific transaction) to leave positive or negative feedback on one another.
FR-9	The system shall allow users to report posts that violate the posting code of conduct.
FR-10	The system shall allow moderators to view reported postings in a F.I.F.O. ordering.
FR-11	The system shall allow moderators to remove postings from the list of reported postings.
FR-12	The system shall allow moderators to edit or delete postings that violate the posting code of conduct.
FR-13	The system shall allow moderators to suspend account privileges for users who abuse the website's posting code of conduct.
FR-14	The system shall allow admin to assign and remove moderator privileges from NetID accounts.
FR-15	The system shall allow admin assign and remove moderator privileges from NetID accounts.
FR-16	The system shall allow admin to view usage statistics.
FR-17	The system shall allow admin to edit content in information sections of the website (i.e. posting code of conduct).
FR-18	The system shall allow admin to configure which site features are enabled and disabled.
FR-19	The system shall remove posts that are 60 days old unless they are "reposted" by a user.

FR-20	The system shall display a section of safety tips, including appropriate locations and police contact information.
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Non-Functional Requirements

NFR-1	The system should be seen as visually appealing by a number > 75% of surveyed students.
NFR-2	During high traffic timeframes (beginning of semester) response times should be < 1 second on average. (assuming no network delay on client side)
NFR-3	The site should not be able to have its information maliciously accessed through user input, direct server requests and cookie jacking.
NFR-4	<p>Must be easily maintainable after project completion. Proposed maintenance features include:</p> <ul style="list-style-type: none"> ○ The ability to update static content on the website. ○ Turn on and off certain features ○ Changing styling such as logo or color scheme. ○ Change the number of reports it takes to be added to a list of moderator action required reports.

Resource Requirements

- **Hardware**
 - Server for PHP, Laravel and html/css code
 - Server for MySQL database
- **System Software**
 - mySQL
 - PHP
 - Java
 - JavaScript
 - CSS
 - HTML
- **Development Software**
 - Atlassian Software
 - Bamboo
 - Clover
 - Confluence
 - Crowd
 - Jira
 - Stash

Work Plan

Deliverables

Deliverable	Date
Design Document Version 1	03/14/14
Project Plan Version 2	04/04/14
Design Document Final Version	04/25/14
Project Plan Final Version	04/25/14
Presentation	04/29/14

Risks

- There could be issues with interpreting the information that is dumped from the bookstore.
- It is possible that a team member will leave our project. This risk will require us to maintain thorough documentation through the development of this project.
- We will have to be prepared to handle large amount of traffic. We will likely need to be able to process significant traffic during the start of each semester, when students are buying textbooks which could be every ISU student (currently 33,241)
- Not making the system easily maintainable would lead to the system not being used in the future.
- Developing the system using Laravel and PHP where our team has little experience creates the risk of not having the time to implement every proposed feature by our client.
- There is also the risk of handling concurrency. If two simultaneous update statements are called, this could lead to an issue.

Team Member Roles

Team Member	Role
Fabian Briesmoore	Key Idea Holder
Jared Cook	Webmaster
Kyle Johnson	Team Leader
Adam Sunderman	Communicator

Project Schedule

Task Name	Start Date	End Date	Duration	Predecessors
Course Deliverables	03/06/14	04/29/14	39	
Design Document Version 1	03/06/14	03/14/14	7	
Project Plan Version 2	03/27/14	04/04/14	7	
Design Document Final Version	04/14/14	04/25/14	10	
Project Plan Final Version	04/14/14	04/25/14	10	
Presentation	04/14/14	04/29/14	12	
Product Development	03/06/14	12/12/14	202	
Create Iteration Plan	03/06/14	03/19/14	10	
Version 1	03/20/14	06/23/14	27	
Write User Stories	03/20/14	03/26/14	5	8
Develop Code	03/27/14	06/13/14	57	10
Test Code	06/16/14	06/20/14	5	11
Version 1 Release	06/23/14	06/23/14	1	12
Version 2	08/25/14	10/17/14	40	
Write User Stories	08/25/14	09/04/14	9	
Develop Code	09/05/14	10/02/14	20	15
Test Code	10/03/14	10/16/14	10	16
Version 2 Release	10/17/14	10/17/14	1	17
Version 3	10/20/14	12/12/14	40	
Write User Stories	10/20/14	10/30/14	9	18
Develop Code	10/31/14	11/27/14	20	20
Test Code	11/28/14	12/11/14	10	21
Version 3 Release	12/12/14	12/12/14	1	22

Project Schedule Gantt Chart

A Gantt Chart of the Project Schedule in .png form is available [here](#).