

INFOST 490-201 - Senior Capstone

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49 Books Mobile Web Application

Final Group Project

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I. Business Case

49 Books is a small bookstore that offers their customers a chance to rent older and specialty books that are either out of print or hard to find. Their collection of books is provided through donations or sold by an owner who wants to give it to someone who can take care of valued hard print book. They have an inventory of over 500 books and 150 customers that they still manage with a combination of paper and excel sheets. The Bookstore has seen an increase in book rentals and membership sign ups, and believe that the current process is outdated and very inefficient. They're looking to find a more modern solution for both the store and its users. They want a system that will accomplish all their goals of tracking book inventory and that will have a user-friendly interface that can allow the users to see all the books available. They want the admin power to add, delete and edit book information in their database. This is also to be accomplished through a platform that will allow for current users to reserve items for pickup on the go.

II. Scope

A. Project Objective

Create a mobile web app that the owner can use for adding, deleting, and editing items in its inventory. The app will allow editing the books information such as

the author, ISBN, and the respective price. This same app will provide a user friendly browsing interface that will enable existing customers to browse and reserve books for pick up that are in the inventory. The system will also allow for users without an account to browse the inventory without the option of making reserves, unless they sign-up.

B. Project Assignments

- Project Manager: Aaron Williams
- Front End Developer(s): Tammy Robinson
- Back End Programmer(s): Aaron Williams, Omelio Hopwood
- Business Analyst: Omelio Hopwood

C. System Requirements

- Employees will test administrative interface as well as customer front end.
- Small sample pool of customers will be taken to test front end interface for usability.

D. Technical Requirements

The system will be developed using HTML5, CSS, PHP, and MySQL. Requirements to develop include:

- Computers
- Mobile Device (for testing purposes)
- Internet Access
- Server Space
 - SOIS web space
- User agent and/or browser emulation
- Software
 - FileZilla FTP Client
 - Dreamweaver
 - Notepad ++/Sublime Text 3
 - MySQL
 - jQuery Mobile

E. System Testing

- Employees will test administrative interface as well as customer front end.
- Small sample pool of customers will be taken to test front end interface for usability.

F. Limits and Exclusions

- Once deployed, ongoing system maintenance will not be required
- Front end design can be further managed by any development team.
 - Or allow admin to create additions, such as promotions on main page, through simplified interface

G. Assumptions and Constraints

- The project Will be fully funded according to agree upon budget
- 49 Books stakeholders will be available for input and testing of system prototype
- Necessary technology will be accessible and in working order throughout the project (Server, internet, company website).

H. Project Management Related Deliverables

- Business Case and Scope Statement
- WBS, Gantt Chart, PDM diagram, Milestones, and WBS Dictionary
- Financial and Resource Aspects
- Risks

I. Product Related Deliverables

- System Prototype
 - A database driven web-based data entry system that includes:
 - Database and tables
 - Login /Log out options for users access to the system
 - A user interface for molding personal to enter run data
 - Administrator interface
- User Documentation
 - Brief document of instructions for end users
- Technical Documentation
 - Basic guidelines including description of table relationships and website structure map.

III. Project Management Documentation

A. Work Break down Structure

WBS_MobileApp	112.5 days	Sat 2/1/14	Sun 5/11/14
1 Initiate Project	1 day	Sat 2/1/14	Sat 2/1/14
1.1 Kick off meeting	1 day	Sat 2/1/14	Sat 2/1/14
1.1.1 Finalize best meeting times	1 day	Sat 2/1/14	Sat 2/1/14
1.1.2 Group Discussion	1 day	Sat 2/1/14	Sat 2/1/14
2 Plan Project	35.88 days	Sat 2/8/14	Tue 3/11/14
2.1 Project Selection	17 days	Sat 2/8/14	Sun 2/23/14
2.1.1 Assign Group Roles	1 day	Sat 2/8/14	Sat 2/8/14
2.1.2 Brainstorm Ideas	7 days	Sat 2/8/14	Fri 2/14/14
2.1.3 Create Project Proposal	10 days	Fri 2/14/14	Sun 2/23/14
2.1.4 Submit Project Proposal	0 days	Sun 2/23/14	Sun 2/23/14
2.2 Create Project Documentation	12 days	Sat 3/1/14	Tue 3/11/14
2.2.1 Create WBS	7 days	Sat 3/1/14	Fri 3/7/14
2.2.2 Create WBS Dictionary	7 days	Sat 3/1/14	Fri 3/7/14
2.2.3 Create Gantt Chart	7 days	Sat 3/1/14	Fri 3/7/14
2.2.4 Document Risks	7 days	Sat 3/1/14	Fri 3/7/14
2.2.5 Document Milestones	0 days	Sat 3/1/14	Fri 3/7/14
2.2.6 Prepare Cost Estimate	0 days	Sat 3/1/14	Tue 3/11/14
2.2.7 Submit Project Documentation	0 days	Tue 3/11/14	Tue 3/11/14
3 Design	64 days	Thu 3/13/14	Fri 5/9/14
3.1	8 days	Thu 3/13/14	Thu 3/20/14
3.1.1 Design Visual Layout	8 days	Thu 3/13/14	Thu 3/20/14
3.1.1.1 Storyboard	8 days	Thu 3/13/14	Thu 3/20/14
3.1.1.2 Logo Design	8 days	Thu 3/13/14	Thu 3/20/14
3.1.2 Design Site Structure	7 days	Thu 3/13/14	Wed 3/19/14
3.1.3 Design Database Structure	7 days	Thu 3/13/14	Wed 3/19/14
3.1.4 Overall Design Approval	0 days	Thu 3/20/14	Thu 3/20/14
3.2 Implementation	51 days	Tue 3/25/14	Fri 5/9/14
3.2.1 Create Database	2 days	Tue 3/25/14	Thu 3/27/14
3.2.1.1 User Database	1 day	Tue 3/25/14	Wed 3/26/14
3.2.1.2 Book Database	1 day	Tue 3/25/14	Wed 3/26/14
3.2.1.3 Pre-load text book data & user data	1 day	Wed 3/26/14	Thu 3/27/14
3.2.1.4 Database Approval	0 days	Thu 3/27/14	Thu 3/27/14
3.2.2 Create User Interface	35 days	Thu 3/27/14	Sun 4/27/14
3.2.2.1 Create Content Code	31 days	Thu 3/27/14	Wed 4/23/14
3.2.2.1.1 PHP/SQL	31 days	Thu 3/27/14	Wed 4/23/14
3.2.2.1.2 CSS/HTML	31 days	Thu 3/27/14	Wed 4/23/14
3.2.2.2 User Interface Approval	1 day	Sat 4/26/14	Sun 4/27/14
3.2.2.3 Publish Page	0 days	Sun 4/27/14	Sun 4/27/14
3.2.3 Create Admin Interface	35 days	Thu 3/27/14	Sun 4/27/14

[-] 3.2.3.1 Create Content Code	31 days	Thu 3/27/14	Wed 4/23/14
3.2.3.1.1 PHP/SQL	31 days	Thu 3/27/14	Wed 4/23/14
3.2.3.1.2 CSS/HTML	31 days	Thu 3/27/14	Wed 4/23/14
3.2.3.2 Admin Interface Approval	1 day	Sat 4/26/14	Sun 4/27/14
3.2.3.3 Publish Page	0 days	Sun 4/27/14	Sun 4/27/14
[+] 3.2.4 Perform Usability Testing	14 days	Sun 4/27/14	Fri 5/9/14
[-] 4 Controlling	112.5 days	Sat 2/1/14	Sun 5/11/14
[+] 4.1 Weekly Meetings	110.38 days	Sat 2/1/14	Sat 5/10/14
[-] 4.2 Status Reports	24.63 days	Sun 3/30/14	Sun 4/20/14
4.2.1 Project Status Report	1 day	Sun 3/30/14	Sun 3/30/14
4.2.2 Project Status Report	1 day	Sun 4/6/14	Sun 4/6/14
4.2.3 Project Status Report	1 day	Sun 4/13/14	Sun 4/13/14
4.2.4 Project Status Report	1 day	Sun 4/20/14	Sun 4/20/14
[-] 4.3 Project Updates	8.88 days	Sun 4/13/14	Sun 4/20/14
4.3.1 Submit Project Update 1	1 day	Sun 4/13/14	Sun 4/13/14
4.3.2 Submit Project Update 2	1 day	Sun 4/20/14	Sun 4/20/14
4.4 Ongoing Usability Testing	2.63 days	Fri 5/9/14	Sun 5/11/14
[-] 5 Closeout	9 days	Sun 5/4/14	Sun 5/11/14
5.1 Compile Final Project	7 days	Sun 5/4/14	Sat 5/10/14
5.2 Submit Final Project	0 days	Sat 5/10/14	Sat 5/10/14
5.3 Team Member Evaluation	0 days	Sun 5/11/14	Sun 5/11/14

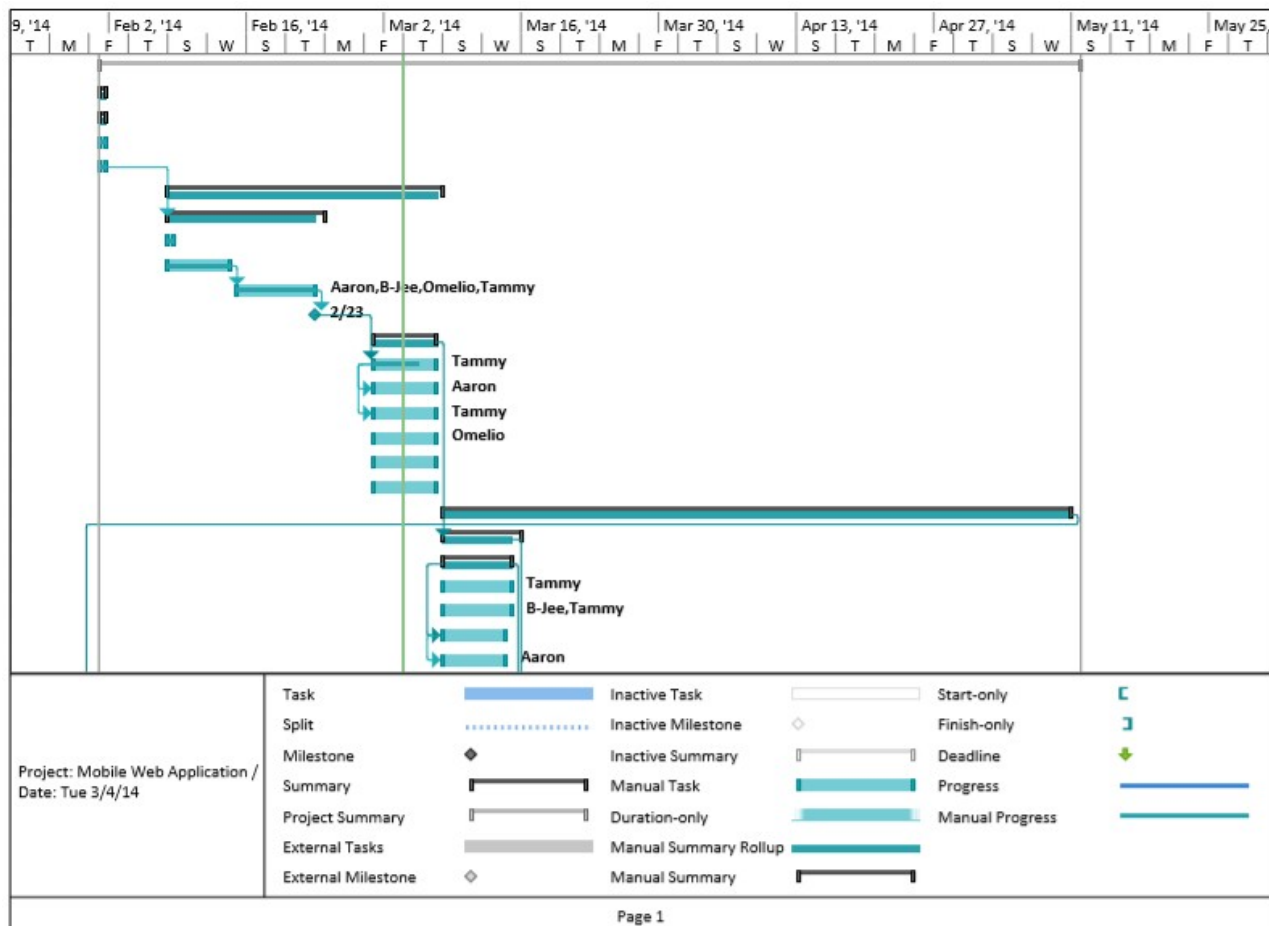
B. WBS Dictionary

Task Name	Description
1. Initiate Project	
1.1 Kick off meeting	All group members Aaron, B-Jee, Omelio, Tammy discuss on D2L website best methods of communication, logistics, general meeting times, and finalization on a better collaborative medium. Google Docs has been chosen for work collaboration, Google Hangouts and email for communication, and Saturday at 8:00 PM, has been chosen for online meeting times.
1.1.2 Group Discussion	Everyone meets online to discuss the project and brainstorm, discuss project logistics, hosting locations, administrative, roles, and documentation.
2. Plan Project	
2.1 Project	Group roles are assigned, Aaron and Omelio as back

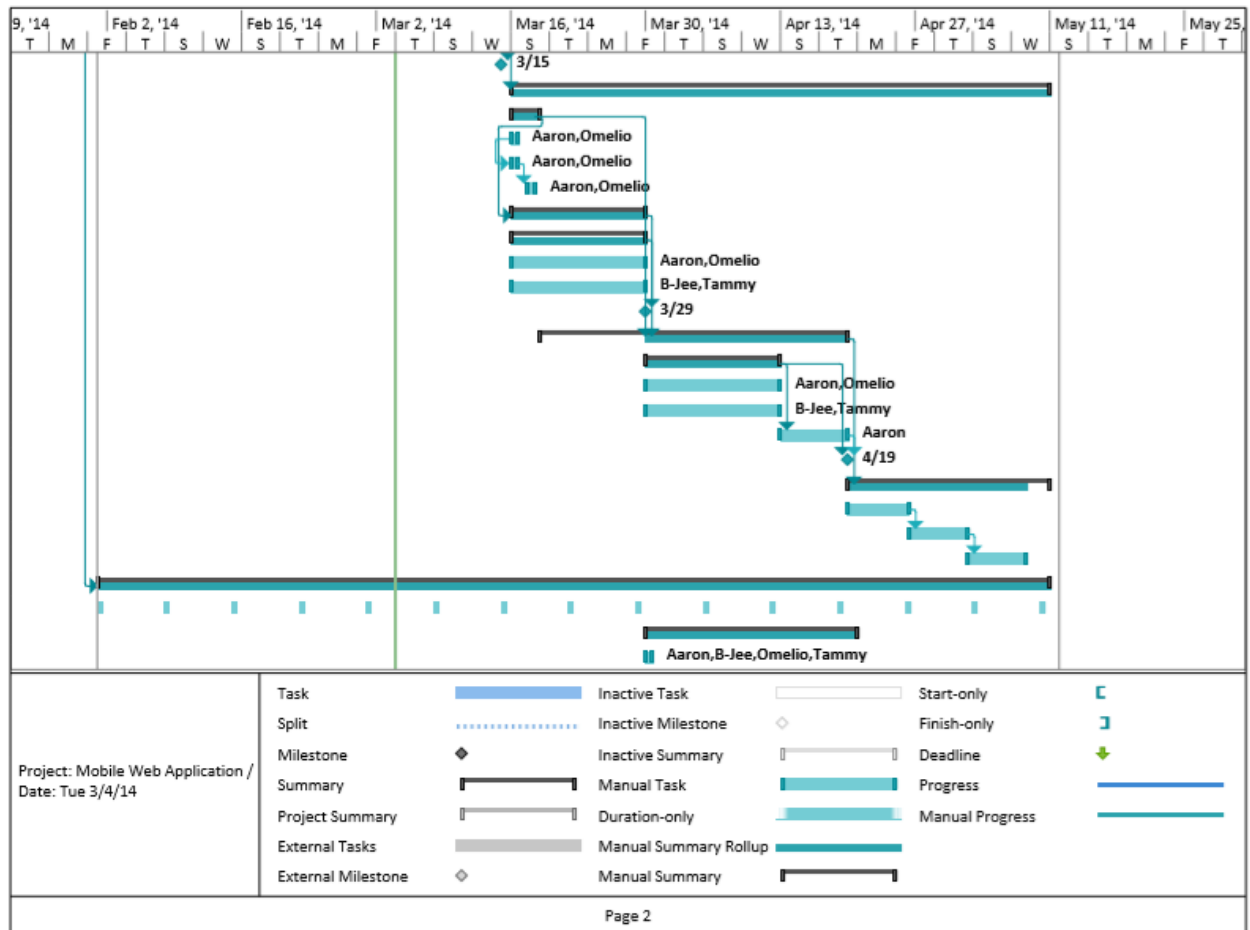
Selection	end, Aaron as project manager, Tammy as front end developer. Brainstorming of ideas and project proposal draft is created and submitted.
2.2 Create Project Documentation	WBS, Dictionary, Gantt Chart, Risks, Milestones, and Costs are discussed and documented into a collaborative Google Docs document, and discussion in Google Hangouts.
3. Execute Project	
3.1 Design	Visual layout will be designed by Tammy, this includes graphics, css style. Site and database structures will be designed by Aaron and Omelio. Group approval will be required for entire design.
3.2 Implementation	
3.2.1 Create Database	Book and user database is created and preloaded with data, will be approved and used for testing. Created by Omelio and Aaron
3.2.2 Create User Interface	Front end user interface is created by Tammy, using html, css, and custom graphics. Back end PHP/SQL processing is created by Aaron and Omelio. Pages will go through group approval and published.
3.2.3 Create Admin Interface	Front administrative interface is created by Tammy, using html, css, and custom graphics. Back end PHP/SQL processing is created by Aaron and Omelio. Pages will go through group approval and published.
3.2.4 Perform Usability Testing	Each web page will undergo rigorous testing by front and back end developers. Observational testing will also be conducted to see how well employees and customers handle the interface. Any issues will be analyzed and redesign conducted as needed.
4. Controlling	
4.1 Weekly Meetings	Weekly meetings will occur on Google Hangouts.
4.2 Status	Each team member is responsible for a specific project

Reports	status report, all other members will approve of what has been written.
4.3 Project Updates	Project updates will be submitted to D2L dropbox after group collaboration and compilation.
5. Closeout	Final project is compiled and made public on uwmsois.com hosting. Microsoft Project files as well as web files are submitted to teacher on D2L. Each team member is evaluated and submitted to D2L.

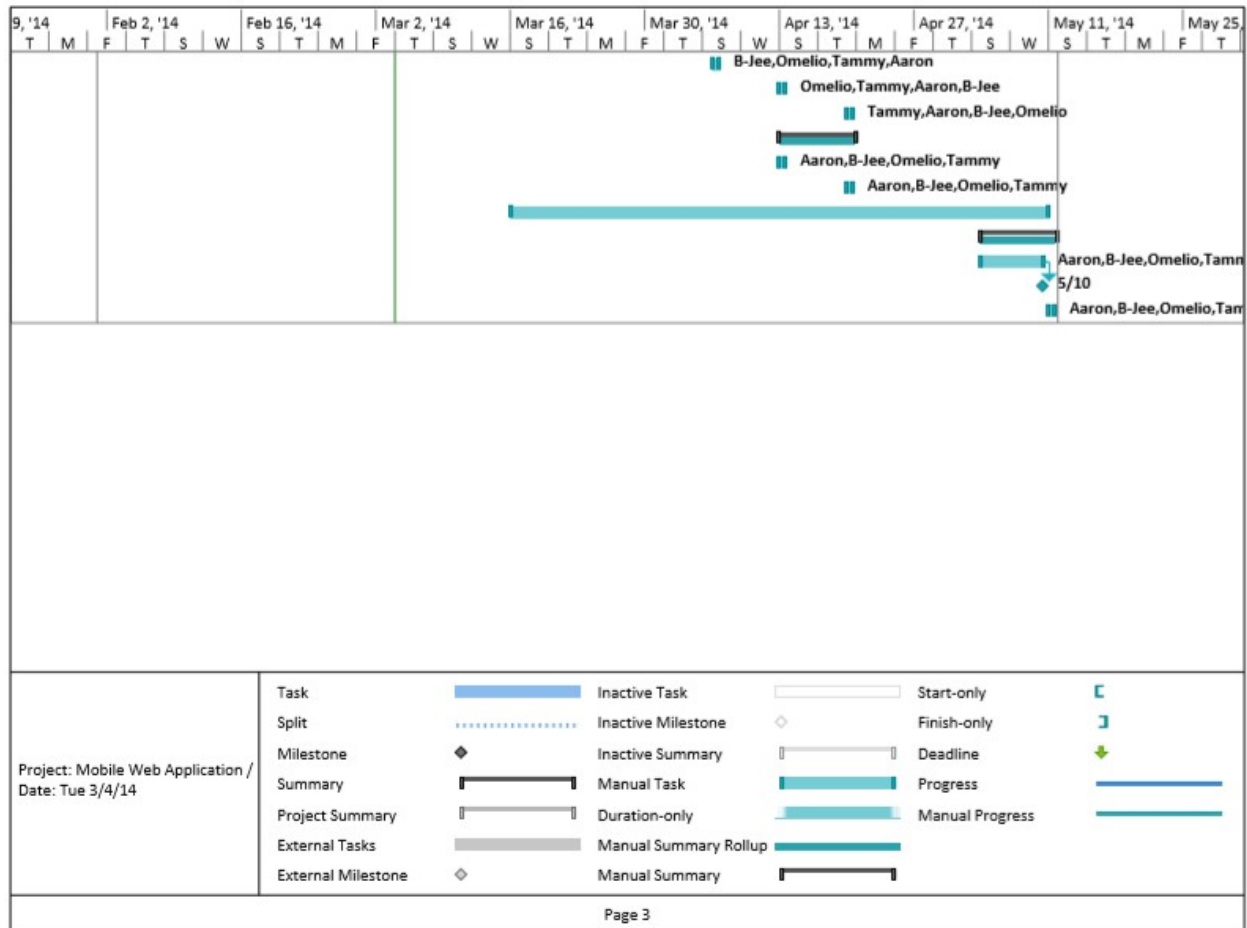
C. Gantt chart



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D. Milestones

Task	Date
Submit Project Draft Proposal	2/23/2014
Submit Project Documentation	3/11/2014
Overall Design Approval	3/20/2014
Database Approval	3/27/2014
User Interface Approval	4/27/2014
Admin Interface Approval	4/27/2014
Final Product Approval	5/10/14

IV. Financial and Resource Documents

A. Cost Estimate

Cost Estimate is calculated by the number of hours each tasks requires and the resource assigned to that task. The two tables below shows detail information on the resource cost and the task cost. Resource cost displays the resource name and rates. The task cost table displays the tasks and the costs according to the number of hours and resources assigned to the task.

B. Resource Costs

Name	Standard Rate	Overtime Rate
Aaron	\$30.00/hr	\$40.00/hr
B-Jee	\$20.00/hr	\$30.00/hr
Tammy	\$20.00/hr	\$30.00/hr
Omelio	\$20.00/hr	\$30.00/hr

C. Task Costs

	Task Name	Fixed Cost	Fixed Cost Accrual	Total Cost	Baseline	Variance	Actual	Remaining
0	WBS_MobileApp	\$0.00	Prorated	\$8,670.00	\$0.00	\$8,670.00	\$780.00	\$7,890.00
1	1 Initiate Project	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2	1.1 Kick off meeting	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3	1.1.1 Finalize best meeting times	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4	1.1.2 Group Discussion	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5	2 Plan Project	\$0.00	Prorated	\$880.00	\$0.00	\$880.00	\$780.00	\$100.00
6	2.1 Project Selection	\$0.00	Prorated	\$600.00	\$0.00	\$600.00	\$600.00	\$0.00
7	2.1.1 Assign Group Roles	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8	2.1.2 Brainstorm Ideas	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
9	2.1.3 Create Project Proposal	\$0.00	Prorated	\$600.00	\$0.00	\$600.00	\$600.00	\$0.00
10	2.1.4 Submit Project Proposal	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11	2.2 Create Project Documentation	\$0.00	Prorated	\$280.00	\$0.00	\$280.00	\$180.00	\$100.00
12	2.2.1 Create WBS	\$0.00	Prorated	\$40.00	\$0.00	\$40.00	\$40.00	\$0.00
13	2.2.2 Create WBS Dictionary	\$0.00	Prorated	\$60.00	\$0.00	\$60.00	\$60.00	\$0.00
14	2.2.3 Create Gantt Chart	\$0.00	Prorated	\$40.00	\$0.00	\$40.00	\$40.00	\$0.00
15	2.2.4 Document Risks	\$0.00	Prorated	\$40.00	\$0.00	\$40.00	\$40.00	\$0.00
16	2.2.5 Document Milestones	\$0.00	Prorated	\$60.00	\$0.00	\$60.00	\$0.00	\$60.00
17	2.2.6 Prepare Cost Estimate	\$0.00	Prorated	\$40.00	\$0.00	\$40.00	\$0.00	\$40.00
18	2.2.7 Submit Project Documentation	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
19	3 Execute Project	\$0.00	Prorated	\$3,290.00	\$0.00	\$3,290.00	\$0.00	\$3,290.00
20	3.1 Design	\$0.00	Prorated	\$290.00	\$0.00	\$290.00	\$0.00	\$290.00
21	3.1.1 Design Visual Layout	\$0.00	Prorated	\$200.00	\$0.00	\$200.00	\$0.00	\$200.00
22	3.1.1.1 Storyboard	\$0.00	Prorated	\$100.00	\$0.00	\$100.00	\$0.00	\$100.00
23	3.1.1.2 Logo Design	\$0.00	Prorated	\$100.00	\$0.00	\$100.00	\$0.00	\$100.00
24	3.1.2 Design Site Structure	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
25	3.1.3 Design Database Structure	\$0.00	Prorated	\$90.00	\$0.00	\$90.00	\$0.00	\$90.00
26	3.1.4 Overall Design Approval	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27	3.2 Implementation	\$0.00	Prorated	\$3,000.00	\$0.00	\$3,000.00	\$0.00	\$3,000.00

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28	▣ 3.2.1 Create Database	\$0.00	Prorated	\$1,200.00	\$0.00	\$1,200.00	\$0.00	\$1,200.00
29	3.2.1.1 User Database	\$0.00	Prorated	\$400.00	\$0.00	\$400.00	\$0.00	\$400.00
30	3.2.1.2 Book Database	\$0.00	Prorated	\$400.00	\$0.00	\$400.00	\$0.00	\$400.00
31	3.2.1.3 Pre-load text book data & user data	\$0.00	Prorated	\$400.00	\$0.00	\$400.00	\$0.00	\$400.00
32	3.2.1.4 Database Approval	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33	▣ 3.2.2 Create User Interface	\$0.00	Prorated	\$900.00	\$0.00	\$900.00	\$0.00	\$900.00
34	▣ 3.2.2.1 Create Content Code	\$0.00	Prorated	\$900.00	\$0.00	\$900.00	\$0.00	\$900.00
35	3.2.2.1.1 PHP/SQL	\$0.00	Prorated	\$500.00	\$0.00	\$500.00	\$0.00	\$500.00
36	3.2.2.1.2 CSS/HTML	\$0.00	Prorated	\$400.00	\$0.00	\$400.00	\$0.00	\$400.00
37	3.2.2.2 User Interface Approval	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
38	3.2.2.3 Publish Page	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
39	▣ 3.2.3 Create Admin Interface	\$0.00	Prorated	\$900.00	\$0.00	\$900.00	\$0.00	\$900.00
40	▣ 3.2.3.1 Create Content Code	\$0.00	Prorated	\$900.00	\$0.00	\$900.00	\$0.00	\$900.00
41	3.2.3.1.1 PHP/SQL	\$0.00	Prorated	\$500.00	\$0.00	\$500.00	\$0.00	\$500.00
42	3.2.3.1.2 CSS/HTML	\$0.00	Prorated	\$400.00	\$0.00	\$400.00	\$0.00	\$400.00
43	3.2.3.2 Admin Interface Approval	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
44	3.2.3.3 Publish Page	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
45	▢ 3.2.4 Perform Usability Testing	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
49	▣ 4 Controlling	\$0.00	Prorated	\$4,320.00	\$0.00	\$4,320.00	\$0.00	\$4,320.00
50	▢ 4.1 Weekly Meetings	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
66	▢ 4.2 Status Reports	\$0.00	Prorated	\$2,880.00	\$0.00	\$2,880.00	\$0.00	\$2,880.00
71	▢ 4.3 Project Updates	\$0.00	Prorated	\$1,440.00	\$0.00	\$1,440.00	\$0.00	\$1,440.00
74	4.4 Ongoing Usability Testing	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
75	▣ 5 Closeout	\$0.00	Prorated	\$180.00	\$0.00	\$180.00	\$0.00	\$180.00
76	5.1 Compile Final Project	\$0.00	Prorated	\$180.00	\$0.00	\$180.00	\$0.00	\$180.00
77	5.2 Submit Final Project	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
78	5.3 Team Member Evaluation	\$0.00	Prorated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

D. Ongoing Costs

Costs for server space and a web host will be needed to run the mobile web application.

E. Net Present Value and Return on Investment

- Net Present Value (NPV)

$$\text{Project Value} - \text{Project Cost} = \text{Net Present Value}$$

$$\$15,000 - \$8,670 = \mathbf{\$6,330}$$

- Return on Investment (ROI)

$$(\text{NPV} / \text{Project Costs}) \times 100 = \text{Return on Investment}$$

$$(\$6,330 / \$8670) \times 100 = \mathbf{73\%}$$

F. Payback

$$\text{Initial Investment} / \text{Cash Inflow per Period} = \text{Payback Period}$$

$$\$8,670(\text{initial investment}) / \$3,000(\text{cash inflow per period}) = \mathbf{2.85 \text{ years}}$$

V. Risk Documentation

A. Financial Risks

- **Cost forecasts are inaccurate**
Inaccurate cost estimates and forecasts.
- **Limited recourse financing**
There is not enough financial resource to purchase Storage, etc.
- **Stakeholders have inaccurate expectations**
Stakeholders develop inaccurate expectations (believe that the project will achieve something not in the requirements, plan, etc.).

B. Team Risks

- **Team Members are inexperienced**
Team members may not have the appropriate skills that are needed.
- **Low team motivation**
- **Project team misunderstands requirements**
When the project team misinterprets requirements a gap develops between expectations, requirements and work packages.
- **Communication overhead**
When key project resources spend a high percentage of their time engaging stakeholders on project issues and change requests their work may fall behind.
- **Users have inaccurate expectations**
The risk that users believe the project is building an apple when you're really building an orange (i.e. users don't understand the product that's coming their way).

C. Technical Risks

- **Design lacks flexibility**
A poor design makes change requests difficult and costly.
- **Design is not fit for purpose**
The design is low quality.

- **Technology components have security vulnerabilities**
Security vulnerabilities are key technology risks.
- **Technology components are over-engineered**
A component that's bloated with unneeded functionality and Design features
- **Technology components lack stability**
Components that will continuously crash
- **Technology components aren't extensible**
Components that is difficult to extend with new capabilities.
- **Information security incidents**
The risk of a security incident during the project (e.g. information is leaked).
- **Project management tool problems & issues**
Technical problems with the project management tools themselves

VI. System Prototype

A. Introduction

The objective of this project is to provide a system for 49 books employees to enter information about the books available in store. 49 Books employees are required to enter book Title, Author, ISBN, and Price.

We chose to create a mobile web app from Scratch based on knowledge we gained from previous coursework and personal experience. Two interfaces were created, one for the end user to access the online reservation and entry form (figure 1), and the second allows the administrator to manage users and manipulate data (figure 2).

Site Address: www.49books.net

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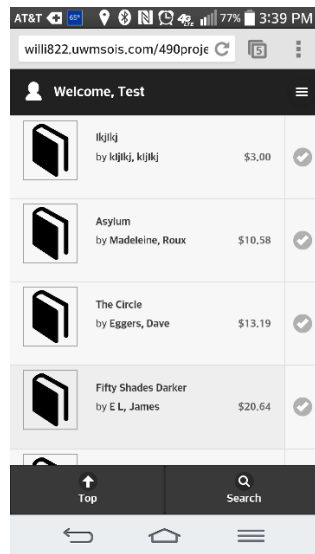


Figure 1

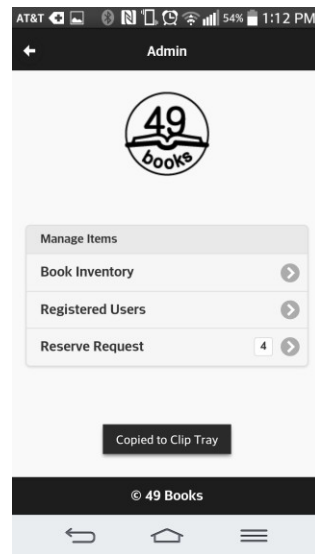
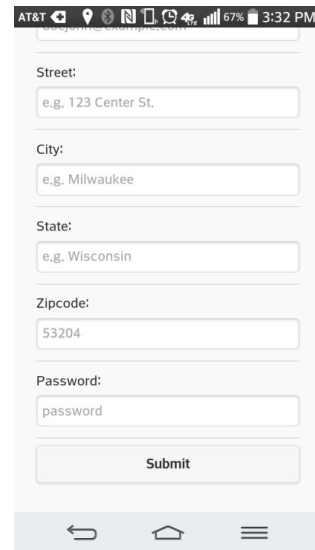
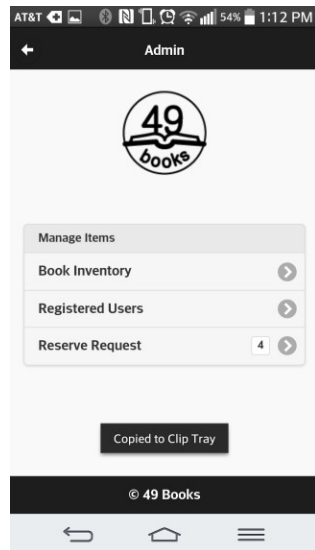


Figure 2

B. Registration Form

The entry form is where users can register to use the mobile application



After registering their user email and password, they will be able to login to the mobile app. See below:

Test User Login Information:

Email: test@user.com

Password: apple32

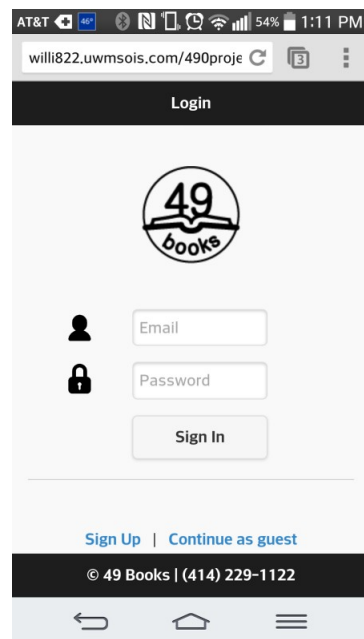


Figure 3

C. [Administrative Backend](#)

An administrative backend was developed for the manipulation of 49 books data. This section of the sites allows the administrator(s) to add new users, books, and view which books had been reserved and by what users like in (Figure 2).

There are three sections of the admin Site:

- Users – The administrator can add, edit, and delete users from the system.
- Books – The administrator can add, view, edit and delete books from the system. The Books table contains the information pertaining to each

different book, such as ISBN number, Book title, author, and price. This section also contains a search function.

- Reserved Books – The administrator can view, edit, and delete information involving a request made by the user. The administrative backend can be accessed when the administrator logs in.

Admin Login Information:

Email: admin@49books.net

Password: potato67

D. [FTP Server Access](#)

The group was provided with FTP access to a server that houses the project. All of the project code is available here.

Host: <ftp.willi822.uwmsois.com>

Username: 490project@willi822.uwmsois.com
Password: avacado45

VII. [User Documentation](#)

A. [User Interface](#)

- Self-explanatory with guiding prompts

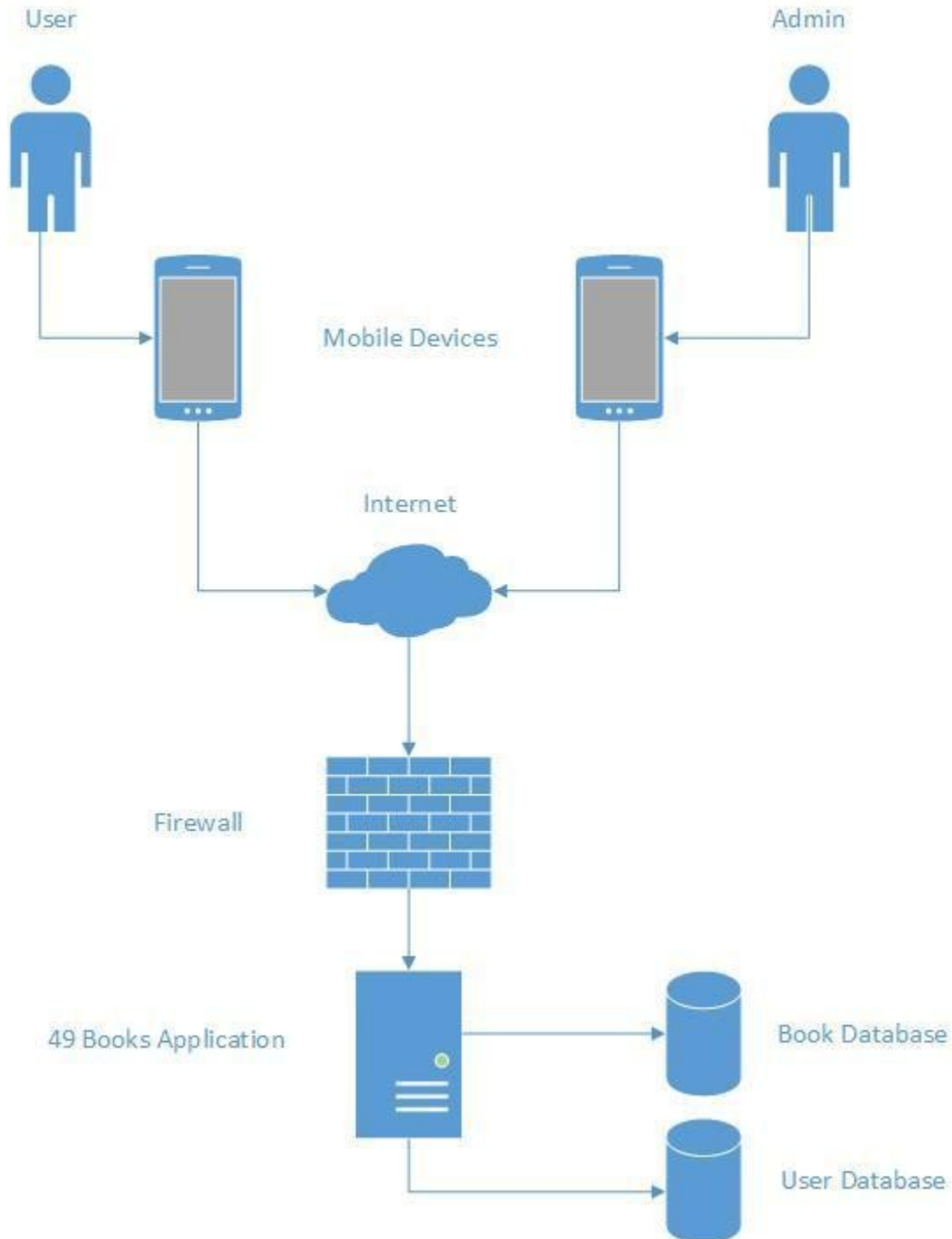
B. [Admin Interface](#)

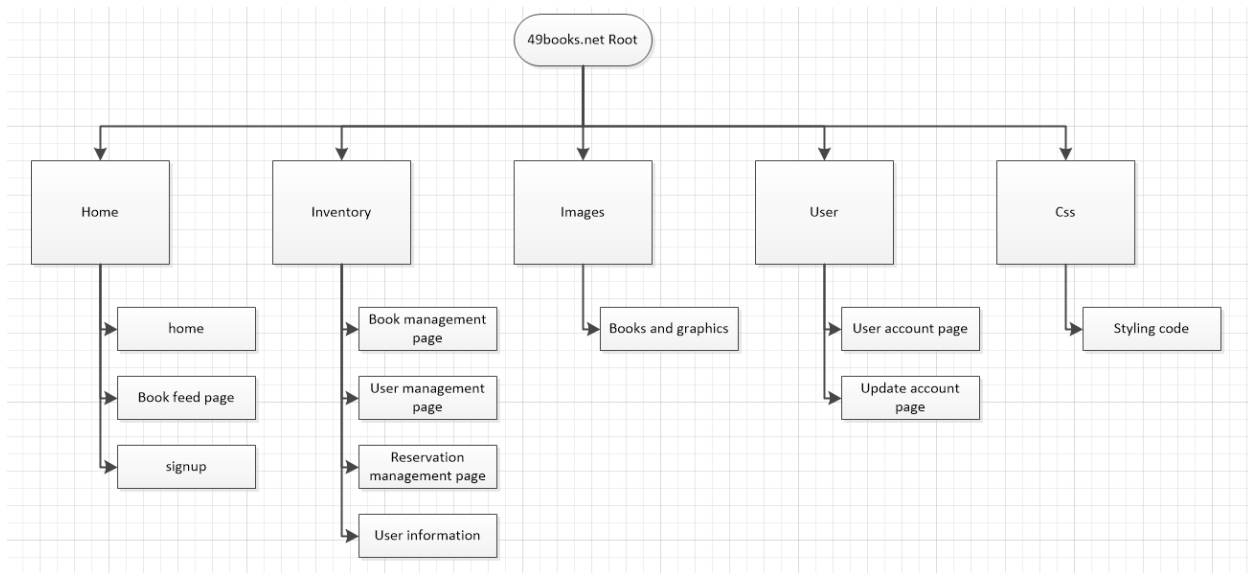
- Administrative users will be provided basic login information as seen in VI. System Prototype; section C

VIII. Technical Documentation

A. System Architecture Documentation

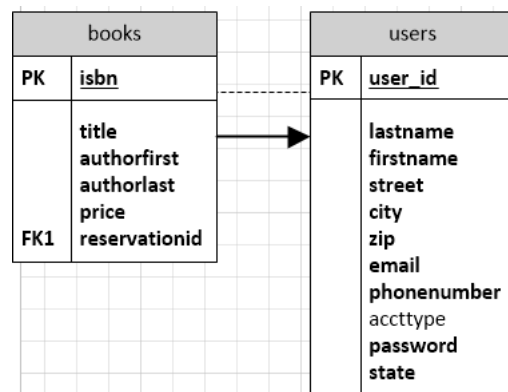
1. Website Diagram





B. Database Information

1. ERD



C. System Coding

The system is located at willi822.uwmsois.com server. All working code is available here, accessible with the FTP server access information from section VI part D above.

1. User Interface

a) Login page - index.php

```

<?php
session_start();
if (isset($_POST['submitted'])) {
    require_once("../mysql_connect.php");
    $errors = array(); // Initialize error array.
    // Check for an email address.
    if (empty($_POST['email'])) {
  
```

```
        $errors[] = 'You forgot to enter your email address.';
    } else {
        $email = mysqli_real_escape_string($con, trim($_POST['email']));
    }
    // Check for a password.
    if (empty($_POST['password'])) {
        $errors[] = 'You forgot to enter your password.';
    } else {
        $password = mysqli_real_escape_string($con, $_POST['password']);
        $password = md5($password);
    }
    if (empty($errors)) { // If everything's OK.
        $query = "SELECT * FROM users WHERE email='$email' AND
password='$password'";
        $result = mysqli_query($con, $query); // Run the query.
        $row = mysqli_fetch_array($result, MYSQLI_ASSOC);

        if ($row) { // A record was pulled from the database.
            $_SESSION["email"] = $row["email"];
            $_SESSION["user_id"] = $row["user_id"];
            $_SESSION["firstname"] = $row["firstname"];
            $_SESSION["accttype"] = $row["accttype"];
            header("Location: userfeed.php");

            exit();
        } else { // No record matched the query.
            $errors[] = 'The email address and password entered do not match
those on file.';
        }
    }
    mysqli_close($con);
}
?>
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>
<body>
```

```
<!-------
Main login page
----->
<div data-role="page" class="page" id="login">
    <header data-role="header" data-theme="b">
        <h3 class="ui-title" role="heading"> Login </h3>
    </header>

    <section data-role="content" class="some ui-content">
        <div align="center" style="margin-top: 25px; margin-bottom: 20px;">
            
        </div>
    <!-- Begin login form -->
        <div data-role="fieldcontain" style="margin-bottom: 50px;" >
            <form id="signin" action="index.php" method="post" data-ajax="false">

                <div class="ui-grid-a">
                    <div class="ui-block-a" align="center">
                        <label for="username"></label></div>
                        <div class="ui-block-b" >
                            <input type="text" name="email" id="email" placeholder="Email"
value="<?php echo $_POST['email']; ?>" /></div>
                        <div class="ui-block-a" align="center">
                            <label for="password"></label></div>
                            <div class="ui-block-b" >
                                <input type="password" name="password" id="password"
placeholder="Password" />
                            </div>
                        </div>

                        <div class="ui-grid-solo">
                            <div class="ui-block-a" >
                                <input type="hidden" name="submitted" value="TRUE" />
                                <input type="submit" value="Sign In" data-inline="true"/>
                            </div>

                            <!-- display errors -->
                            <?php
                            if (!empty($errors)) {
                                echo '<h1 id="mainhead">Error!</h1> <p class="error">The
following error(s) occurred:<br />';
                                foreach ($errors as $msg) {
                                    echo " - $msg<br />\n";
                                }
                                echo '</p><p>Please try again.</p>';
                            }?>

                        </div>
                    </form>
                </div>
            </div>
        </div>
    </div>
</div>
```

[illegible]

b) Registration - signup.php

```
<?php
//Check if the form has been submitted
if (isset($_POST['submitted'])) {
    require_once(' ../mysql_connect.php'); // connect to DB
    $errors = array(); // Initialize error array.
    $firstname = mysqli_real_escape_string($con, trim($_POST['firstname']));
    if (empty($firstname))
    {
        $errors[] = 'You forget to enter your first name.';
    }
    $lastname = mysqli_real_escape_string($con, trim($_POST['lastname']));
    if (empty($lastname))
    {
        $errors[] = 'You forget to enter your last name.';
    }
    $street = mysqli_real_escape_string($con, trim($_POST['street']));
    if (empty($street))
    {
        $errors[] = 'You forget to enter your address.';
    }
    $city = mysqli_real_escape_string($con, trim($_POST['city']));
    if (empty($city))
    {
        $errors[] = 'You forgot to enter your city.';
    }
    $state = mysqli_real_escape_string($con, trim($_POST['state']));
    if (empty($state))
    {
        $errors[] = 'You forget to enter your state.';
    }
    $zip = mysqli_real_escape_string($con, trim($_POST['zip']));
    if(empty($zip))
```

```
{
    $errors[] = 'You forgot to enter you zip code.';
}
$email = mysqli_real_escape_string($con, trim($_POST['email']));
if(empty($email))
{
    $errors[] = 'You forgot to enter your email.';
}
$phonenumber = mysqli_real_escape_string($con, trim($_POST['phonenumber']));
if(empty($phonenumber))
{
    $errors[] = 'You forgot to enter your phone number.';
}
$password = mysqli_real_escape_string($con, trim($_POST['password']));
if(empty($password))
{
    $errors[] = 'You forgot to enter a password.';
}
else
{
    $md5password = md5($password);
}

if(empty($errors)) { //IF everything's OK
    //Register the user in the Database.
    //Check for Previous registration.
    $query = "SELECT * FROM users WHERE email='$email'";
    $result = mysqli_query($con, $query) or die(mysqli_error($con)); // Run the
query.
    if (mysqli_num_rows($result) == 0) { // if there is no such email address
        //make the query
        $query = "INSERT INTO users (firstname, lastname, phonenumber,
email, street, city, state, zip, password)
VALUES ('$firstname', '$lastname', '$phonenumber', '$email', '$street',
'$city', '$state', '$zip', '$md5password')";
        $result = mysqli_query($con, $query);

        if($result){ //If it ran OK.
            echo "<p>You are now registered. Please, proceed to
login.</p>";

            echo "<a href=index.php>Login</a>";
            exit();
        } else { //If it did not run OK.
            $errors[] = 'You could not be registered due to a system error.
We apologize for any inconvenience.'; // Public message.
            $errors[] = mysqli_error($con); // MySQL error message.
        }
    } else { // Email Address is already taken.
        $errors[] = 'The email address has already been registered.';
    }
} // End of If (empty($errors))
```


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```
        mysqli_close($con); //Close the database connection
    } else { // Form has not been submitted
        $errors = NULL;
    } // End of the main Submitted conditional
    // Begin the page now.
    ?>
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books - Sign Up</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>
<body>
    <div data-role="page" id="signup" data-theme="a" data-ajax="false">
    <header data-role="header" data-theme="b">
    <a href="index.php" data-inline="true" data-mini="true" class="ui-btn-
left">Cancel</a>
    <h3 align="center">Sign Up Form</h3>
    </header>

    <div data-role="main" class="ui-content">
    <form id="newuser" action="signup.php" method="post" data-ajax="false">
    <div style="padding:10px 10px;">

    <div class="ui-field-contain">
    <label for="firstname">First Name:</label>
    <input type="text" name="firstname" id="firstname" placeholder="John" data-
theme="a" data-clear-btn="true" size="10" value="<?php echo $_POST['firstname']; ?>" />
    </div>

    <div class="ui-field-contain">
    <label for="lastname">Last Name:</label>
    <input type="text" name="lastname" id="lastname" placeholder="Doe" data-
theme="a" data-clear-btn="true" value="<?php echo $_POST['lastname']; ?>" />
    </div>

    <div class="ui-field-contain">
    <label for="phone">Phone: </label>
    <input type="tel" name="phonenumber" id="phonenumber" placeholder="eg
555-555-5555" data-theme="a" data-clear-btn="true" value="<?php echo
$_POST['phonenumber']; ?>" />
    </div>
```

```
<div class="ui-field-contain">
  <label for="email">Email: </label>
  <input type="email" name="email" id="email"
placeholder="doejohn@example.com" data-theme="a" data-clear-btn="true" value="<?php echo
$_POST['email']; ?>" />
</div>

<div class="ui-field-contain">
  <label for="street"> Street: </label>
  <input type="text" name="street" id="street" placeholder="e.g. 123 Center St."
data-theme="a" data-clear-btn="true" value="<?php echo $_POST['street']; ?>" />
</div>

<div class="ui-field-contain">
  <label for="city"> City: </label>
  <input type="text" name="city" id="city" placeholder="e.g. Milwaukee" data-
theme="a" data-clear-btn="true" value="<?php echo $_POST['city']; ?>" />
</div>

<div class="ui-field-contain">
  <label for="state"> State: </label>
  <input type="text" name="state" id="state" placeholder="e.g. Wisconsin" data-
theme="a" data-clear-btn="true" value="<?php echo $_POST['state']; ?>" />
</div>

<div class="ui-field-contain">
  <label for="zip"> Zipcode: </label>
  <input type="number" name="zip" id="zip" placeholder="53204" data-
theme="a" data-clear-btn="true" pattern="\d*" value="<?php echo $_POST['zip']; ?>" />
</div>

<div class="ui-field-contain">
  <label for="pw"> Password:</label>
  <input type="password" name="password" id="pw" value=""
placeholder="password" data-theme="a" data-clear-btn="true"></div>

<!-- <button type="submit" name="submitted" class="ui-btn ui-corner-all ui-
shadow ui-btn-b ui-btn-icon-left ui-icon-check" data-inline="true">Submit</button> -->
  <center><input type="submit" name="submit" value="Submit" /></center>
  <input type="hidden" name="submitted" value="TRUE" />

<!--error management-->
<div data-role="popup" id="error" data-overlay-theme="b" data-theme="b" data-
dismissible="false" data-position-to="window" style="max-width:400px;">
<a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-icon-delete ui-btn-
icon-notext ui-btn-right">Close</a>
  <header data-role="header" data-theme="a"><h6>Sign Up Error</h6></header>
  <div role="main" class="ui-content">
```

```
<h4 class="ui-title">Invalid input</h4>
<p>Sorry, the value you input for <!-- some php to tell which field is wrong --> is invalid.
Please try again.</p>
<center><a href="#" class="ui-btn ui-corner-all ui-shadow ui-btn-inline ui-btn-b" data-
rel="back" data-mini="true" data-transition="flow">Ok</a></center>
</div>
</div>

<!-- SUCCESS Pop up dialogue when selecting an item -->
<div data-role="popup" id="success" data-overlay-theme="b" data-theme="b" data-
dismissible="false" data-position-to="window" style="max-width:400px;">
<a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-icon-delete ui-btn-
icon-notext ui-btn-right">Close</a>
<header data-role="header" data-theme="a"><h6>Thank you</h6></header>
<div role="main" class="ui-content">
<h4 class="ui-title">Thank you for signing up !</h4>
<p>You may now log into your new 49 Books&copy; account!</p>
<center><a href="index.php" class="ui-btn ui-corner-all ui-shadow ui-btn-inline ui-btn-b"
data-rel="back" data-mini="true" data-transition="flow">Login</a></center>
</div>
</div>

<?php
if (!empty($errors)){
    echo '<h1 id="mainhead">Error!</h1> <p class="error">The following error(s)
occurred:<br />';
    foreach ($errors as $msg){
        echo " - $msg<br />\n";
    }
    echo '</p><p>Please try again.</p>';
}
?>
<!-- end of style div -->
</div>
</form>
<!-- end of main content div -->
</div></div>
</body></html>
```

c) [Book feed interface - userfeed.php](#)
(View conditional dependent on login credentials)

```
<?php
session_start();
require_once("../mysqli_connect.php");
?>
<!doctype html>
<html>
<head>
<meta charset="utf-8">
```

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```
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>
<link rel="stylesheet" href="../css/style.css" type="text/css" @media only screen and (max-
width:320px)/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>
<body>
<div data-role="page" class="page" id="user">
    <!-- panel menu -->
    <section data-role="panel" id="panel" data-position="right" data-display="overlay">
        <ul data-role="listview">
            <li data-role="list-divider">Browse Catalog</li>
            <li><form id="searchform" action="userfeed.php" method="post">
                <input type="search" name="title" id="search" placeholder="Title"
data-clear-btn="true" />
                <input type="search" name="author" id="search"
placeholder="Author" data-clear-btn="true" />
                <input type="search" name="isbn" id="search" placeholder="ISBN"
data-clear-btn="true" />
                <input type="submit" value="Search"></form></li>

            <li data-role="list-divider">Account</a></li>
            <?php if (isset($_SESSION["firstname"]))
            { ?>
            <li><a href="../user/uacct.php" class="ui-icon-user">View My
Account</a></li>

            <li><a href="../user/uacct.php">Reserved Books</a></li>

            <?php if ($_SESSION['accttype'] == "admin"){ ?>
            <li data-role="list-divider">Administration</a></li>
            <li><a href="../inventory/inventory.php" class="ui-icon-
gear">Manage Inventory & Users</a></li>
            <?php } ?>
            <li data-role="list-divider">General</a></li>
            <li><a href="../home/logout.php" class="ui-icon-lock">Logout</a></li>
            <?php }
            else
            {
            ?>
            <li><a href="index.php">Sign In</a></li>
            <li><a href="signup.php">Sign Up</a></li>
            <?php } ?>
        </ul>
    </section>
    <!-- end of panel menu -->
```

```
<header id="head2" data-role="header" data-theme="b" data-icon="user" class="feed-
header-grid ui-grid-b">
    <div class="ui-block-a">
        
    </div>
    <div class="ui-block-b">
        <article role="header"> Welcome,
        <?php if ($_SESSION["accttype"] == "admin")
        {
            echo "Admin";
        }
        elseif (isset($_SESSION["firstname"]))
        {
            echo $_SESSION["firstname"];
        }
        else
        {
            echo "guest";
        }
        ?></article>
    </div>
    <div class="ui-block-b">
<a href="#panel" data-role="button" data-icon="bars" data-iconpos="notext" data-inline="true"
class="ui-nodisc-icon ui-btn-right ui-corner-all" style="background:transparent; margin: 5px
0px;">Menu</a>
    </div>
</header>
<!-- Query and show ALL books -->

<section data-role="content" class="ui-content" id="content">
    <ul data-role="listview" id="feed">
        <?php
        //formulate the search query
        if(!empty($_POST['title']) || !empty($_POST['author']) || !
empty($_POST['isbn']))
        {
            $query="SELECT * FROM books WHERE (title LIKE '%".
$_POST['title']."%'
            AND (CONCAT(authorlast, authorfirst) LIKE '%".$_POST['author']."%')
            AND (isbn LIKE '%".$_POST['isbn']."%'))";
        }
        else
        {
            $query = "SELECT * FROM books";
        }
        //show results
        $result = mysqli_query($con, $query);
        $num = mysqli_num_rows($result);
        if ($num > 0)
        {
```

```

    while($row = mysqli_fetch_array($result,
    MYSQLI_ASSOC))
    {
        if (($row["reservationid"]) == null) //make
        sure its not reserved already
        {
            print "
            <li>
            <a href='#>
            <img src='../images/small21.png'/>
            <p><strong>" . $row['title'] .
            "</strong></p>
            <p>by <strong>" . $row['authorlast'] . ", " . $row['authorfirst'] . "</strong></p>
            <p style='text-align:right; position:
            relative; bottom: 21.95px; color: #666;'><strong>$" . number_format($row['price'], 2) .
            "</strong></p></a>
            <a href='#" .
            (isset($_SESSION['firstname']) ? 'reserve' : 'guestreserve') . "' data-rel='popup' data-position-
            to='window' data-transition='pop' data-icon='check' onclick='sessionStorage.isbn=" . $row['isbn'] .
            "'>Reserve Item</a>
            </li>;
        }

    } //end while
    }
    else
    {
        echo '<p>Your search hits no result.</p>';
    }
    mysqli_close($con); // Close the database connection.

?>
</ul>
</section>

<!-- Pop up dialogue when selecting an item -->
    <div data-role="popup" id="reserve" data-overlay-theme="b" data-theme="b" data-
    dismissible="false" style="max-width:400px;">
        <a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-
        icon-delete ui-btn-icon-notext ui-btn-right">Close</a>
        <header data-role="header" data-theme="a"><h6>Reserve
        Book</h6></header>

        <div role="main" class="ui-content">
            <h4 class="ui-title">Are you sure you want to reserve this book?</h4>
            <p>You can review all of the books you have reserved by
            clicking the "Reserved Books" option from the main menu.</p>
            <center><a href="#" id="reserveBook" class="ui-btn
            ui-corner-all ui-shadow ui-btn-inline ui-btn-b" data-rel="back" data-transition="flow">Reserve</a>

```

```

        <a href="#" class="ui-btn ui-corner-all ui-
shadow ui-btn-inline ui-btn-b" data-rel="back">Cancel</a></center></div></div>

        <div data-role="popup" id="guestreserve" data-overlay-theme="b" data-theme="b" data-
dismissible="false" style="max-width:400px;">
            <a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-
icon-delete ui-btn-icon-notext ui-btn-right">Close</a>
            <header data-role="header" data-theme="a"><h6>Please Sign
Up</h6></header>
            <div role="main" class="ui-content">
                <h4 class="ui-title">You are not allowed to reserve this item.</h4>
                <p>Sorry, you must sign up for an account in order to reserve
49 Books &copy; items.</p>
            <center><a href="#" class="ui-btn ui-corner-all ui-shadow ui-btn-inline ui-btn-b" data-rel="back"
data-mini="true" data-transition="flow">Ok</a></center></div></div>

<!-- Footer with quick access menu bar -->
    <footer data-role="footer" data-position="fixed" data-theme="b" >

        <div data-role="navbar" class="navbar">
            <ul>
                <li><a data-ajax="false" data-role="button" href="#user" data-
icon="arrow-u" data-iconpos="top">Top</a></li>
                <li><a data-ajax="false" data-role="button" href="#panel" data-
icon="search" data-iconpos="top">Search</a></li>
            </ul>
        </div>
    </footer>
</div>
<script type="text/javascript">
    $('#reserveBook').click(function(){
        var isbn = sessionStorage.getItem('isbn');
        $.post(
            "../inventory/reservebook.php",
            { isbn: isbn }, function(){
                location.reload()
            }
        );
    });
</script>
</body>
</html>

```

d) User account page - uacct.php

(View conditional dependent on login credentials)

```

<?php
session_start();
require_once("../mysqli_connect.php");
?>
<!doctype html>
<html>

```

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```
<head>
<meta charset="utf-8">
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books - Account</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css"
/><script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>
<body>
<!-------
USER ACCOUNT PAGE
----->
<div data-role="page" class="page" id="uacct">
    <!-- panel menu -->
    <section data-role="panel" id="panel" data-position="right" data-display="overlay">
        <ul data-role="listview">
            <li data-role="list-divider">Your Preferences</a></li>
            <!--<li><a href="#" class="ui-icon-edit">Update Contact Info</a></li>
            <li><a href="#" class="ui-icon-edit">Change Username</a></li>-->
            <li><a href="#updatepw" class="ui-icon-edit" data-rel="popup" data-
position-to="window" data-transition="pop">Change Password</a></li>
            <?php
                if ($_SESSION["accttype"] == "admin")
                {
                    echo "<li data-role='list-divider'>Administration</
a></li>";
                    echo "<li><a href='../inventory/inventory.php'
class='ui-icon-gear'>Manage Inventory & Users</a></li>";
                }
            ?>
            <li data-role="list-divider">General</a></li>
            <li><a href="../home/logout.php" class="ui-icon-lock">Logout</a></li>
        </ul>
    </section>
    <!-- end of panel menu -->
    <header data-role="header" id="head3" data-theme="b" class="acct-header-grid ui-grid-
b">
        <div class="ui-block-a">
            <a href="../home/userfeed.php" data-role="button" data-icon="home"
data-iconpos="notext" data-inline="true" class="ui-nodisc-icon ui-btn-left ui-corner-all"
style="background:transparent; margin: 5px 0px;">Home</a>
        </div>
        <div class="ui-block-b">
            <h3 class="ui-title"> Your Account </h3>
        </div>
        <div class="ui-block-c">
```



```

        <a href="#panel"
            data-role="button" data-icon="bars" data-iconpos="notext"
data-inline="true"
            class="ui-nodisc-icon ui-btn-right ui-corner-all"
style="background:transparent; margin: 5px 0px;">Menu</a>
    </div>
</header>
<section data-role="content" class="ui-content" id="content">

    <ul data-role="listview"><li data-role="list-divider">Contact
Information</li></ul>
    <div id="userinfo"><!-- Should be able to update this information -->
    <?php
        $email = $_SESSION["email"];
        $query = "SELECT * FROM users WHERE email='$email'";
        $result = mysqli_query($con, $query);
        $row = mysqli_fetch_array($result, MYSQLI_ASSOC);

        print "
            <table border='0'>
                <tr>
                    <td><strong>Name</strong></td>
                    <td style='padding: 0px 0px 0px 100px; text-align:
right;'>" . $row['firstname'] . " " . $row['lastname'] . "</td>
                </tr>

                <tr>
                    <td style='border-top:1px solid
#000;'><strong>Phone</strong></td>
                    <td style='border-top:1px solid #000; padding: 0px
0px 0px 100px; text-align: right;'>" . $row['phonenummer'] . "</td>
                </tr>

                <tr>
                    <td style='border-top:1px solid
#000;'><strong>Email</strong></td>
                    <td style='border-top:1px solid #000; padding: 0px
0px 0px 100px; text-align: right;'>" . $row['email'] . "</td>
                </tr>

                <tr>
                    <td style='border-top:1px solid #000;' rowspan='3'
valign='top'><strong>Address</strong></td>
                    <td style='border-top:1px solid #000; padding: 0px
0px 0px 90px; text-align: right;'>" . $row['address'] . "</td>
                </tr>

                <tr>
                    <td style='padding: 0px 0px 0px 100px; text-align:
right;'>" . $row['city'] . " , " . $row['state'] . "</td>
                </tr>

```

```

        <tr>
            <td style='padding: 0px 0px 0px 100px; text-align:
right;'>" . $row['zip'] . "</td>
        </tr>";
    ?>
    <tr >
        <td style=border-top:1px solid #000;" colspan="2"
align="center">
            <a href="updateacct.php"><input type="button"
value="Update" data-mini="true" data-inline="true"/></a>
        </td>
    </tr>

</table>
<!-- end of content div -->
</div>
<ul data-role="listview" id="userreserve">
    <li data-role="list-divider">Your Reserved Items</li>
    <?php
        $user_id = $_SESSION["user_id"];
        $query="SELECT * FROM books WHERE reservationid='$user_id'";
        $result = mysqli_query ($con, $query) or die (mysqli_error());
        $num = mysqli_num_rows($result);
        while ($row = mysqli_fetch_array($result, MYSQL_ASSOC))
        {
            print "
            <li>
                <a href='#'>
                    <img src='../images/small21.png' />
                    <h2>" . $row['title'] . "</h2>
                    <p>by <strong>" . $row['authorlast'] . ", " .
$row['authorfirst'] . "</strong></p>
                    <p style='text-align:right; position: relative; bottom:
21.95px; color: #666;'><strong>$" . number_format($row['price'], 2) . "</strong></p></a>

                <a href='#cancel' data-rel='popup' data-position-
to='window' data-transition='pop' data-icon='delete' onclick='sessionStorage.isbn=" . $row['isbn'] .
"'>Cancel Item</a>

            </li>";
        }
    ?>
</ul>
</section>
<!-- Pop up dialogue when CANCELING an item -->
    <div data-role="popup" id="cancel" data-overlay-theme="b" data-theme="b" data-
dismissible="false" style="max-width:400px;">

```

```
<a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-
icon-delete ui-btn-icon-notext ui-btn-right">Close</a>
<header data-role="header" data-theme="a"><h6>Cancel Reserve
</h6></header>
<div role="main" class="ui-content">
<h4 class="ui-title">Are you sure you want to cancel your reserve
request for this item?</h4>
<p>You will no longer be able to pick up this item if it is requested by
another user.</p>
<center><a href="#" id="cancelBook" class="ui-btn ui-corner-all ui-
shadow ui-btn-inline ui-btn-b" data-mini="true" data-rel="back" data-transition="flow">Yes</a>
<a href="#" class="ui-btn ui-corner-all ui-shadow ui-btn-inline ui-btn-b"
data-mini="true" data-rel="back">No</a></center></div></div>

<!-- Pop up dialogue when UPDATING PASSWORD an item -->
<div data-role="popup" id="updatepw" data-overlay-theme="b" data-theme="b" data-
dismissible="false" style="max-width:400px;">
<a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-
icon-delete ui-btn-icon-notext ui-btn-right">Close</a>
<header data-role="header" data-theme="a"><h6>Update</h6></header>

<div role="main" class="ui-content">
<form id="newpass" action="../home/signup.php" method="post"
data-ajax="false">
<div style="padding:10px 10px;">

<div class="ui-field-contain">
<label for="oldpw"> Current password:</label>
<input type="password" name="pass" id="oldpw"
value="" data-theme="a" data-clear-btn="true">
</div>

<div class="ui-field-contain">
<label for="newpw"> New password:</label>
<input type="password" name="pass" id="newpw"
value="" data-theme="a" data-clear-btn="true">
</div>

<div class="ui-field-contain">
<label for="newpwconfirm"> Re-type new
password:</label>
<input type="password" name="pass"
id="newpwconfirm" value="" data-theme="a" data-clear-btn="true">
</div>

<a href="#" class="ui-btn ui-corner-all ui-shadow ui-btn-inline
ui-btn-b" data-mini="true" data-transition="flow">Save</a>

</div>
</div>
<!-- Quick access menu bar
```

```

    <footer data-role="footer" data-position="fixed" data-theme="b" >
        <div data-role="navbar">
            <ul>
                <li><a href="#page2" data-ajax="false" data-role="button"
data-icon="home" data-iconpos="top">Home</a></li>
                <li><a href="#" data-role="button" data-icon="gear"
data-iconpos="top">Update Info</a></li>
            </ul>
        </footer>
    </div>-->
    <script type="text/javascript">
        $('#cancelBook').click(function(){
            var isbn = sessionStorage.getItem('isbn');
            $.post(
                "../inventory/cancelbook.php",
                { isbn: isbn }, function(){
                    location.reload();
                });
        });
    </script></body></html>

```

e) User Information Update - updateacct.php

```

<?php
session_start();
require_once("../mysqli_connect.php");
$email = $_SESSION["email"];
$query = "SELECT * FROM users WHERE email='$email'";
$result = mysqli_query($con, $query);
$row = mysqli_fetch_array($result, MYSQLI_ASSOC);

if (isset($_POST['submitted']))
{
    $errors = array(); // Initialize error array.

    $firstname = mysqli_real_escape_string($con, trim($_POST['firstname']));
    if (empty($firstname))
    {
        $errors[] = 'You forget to enter your first name.';
    }
    $lastname = mysqli_real_escape_string($con, trim($_POST['lastname']));
    if (empty($lastname))
    {
        $errors[] = 'You forget to enter your last name.';
    }
    $street = mysqli_real_escape_string($con, trim($_POST['street']));
    if (empty($street))
    {
        $errors[] = 'You forget to enter your address.';
    }
}

```

```
}
$city = mysqli_real_escape_string($con, trim($_POST['city']));
if( empty($city))
{
    $errors[] = 'You forgot to enter your city.';
}
$state = mysqli_real_escape_string($con, trim($_POST['state']));
if( empty($state))
{
    $errors[] = 'You forget to enter your state.';
}
$zip = mysqli_real_escape_string($con, trim($_POST['zip']));
if(empty($zip))
{
    $errors[] = 'You forgot to enter you zip code.';
}

#$email = mysqli_real_escape_string($con, trim($_POST['email']));
#if(empty($email))
#{
#    $errors[] = 'You forgot to enter your email.';
#}
$phonenumber = mysqli_real_escape_string($con, trim($_POST['phonenumber']));
if(empty($phonenumber))
{
    $errors[] = 'You forgot to enter your phone number.';
}
$password = mysqli_real_escape_string($con, trim($_POST['password']));
if(empty($password))
{
    $errors[] = 'You forgot to re-enter or update your password.';
}
else
{
    $md5password = md5($password);
}

if(empty($errors))
{
    $query = "UPDATE users
    SET firstname='$firstname', lastname='$lastname',
    phonenumber='$phonenumber', street='$street', city='$city', state='$state', zip='$zip',
    password='$md5password'
    WHERE email='$email'";
    $result = mysqli_query($con, $query); // Run The query.
    if($result)
    {
        header ("Location: uacct.php");
        exit();
    }
    else
```

```
        {
            $errors[] = 'You could not be registered due to a system error. We
apologize for any inconvenience.'; // Public message.
            $errors[] = mysqli_error($con); // MySQL error message.
        }

    }

    mysqli_close($con); //Close the database connection
} //submitted conditional
else
{
    $errors = NULL;
    $email = $_SESSION["email"];
    $query = "SELECT * FROM users WHERE email='$email'";
    $result = mysqli_query($con, $query) or die(mysqli_error($con)); // Run the query.
    $row = mysqli_fetch_array($result, MYSQLI_ASSOC);
}
// Begin the page now.
?>
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>

<body>
<!-------
UPDATE ACCT FORM PAGE
----->
        <div data-role="page" id="update" data-theme="a" data-ajax="false">
            <header data-role="header" data-theme="b">
                <a href="#" data-rel="back" data-inline="true" data-
mini="true" class="ui-btn-left">Cancel</a>
                <h3 align="center">Update Account</h3>
            </header>

            <div data-role="main" class="ui-content">
                <form id="updateinfo" action="updateacct.php" method="post" data-
ajax="false">
```

```
<div style="padding:10px 10px;">
<?php
if (isset($_POST['submitted'])) {?>
    <div class="ui-field-contain">
        <label for="firstname">First Name:</label>
        <input type="text" name="firstname" id="firstname"
placeholder="John" data-theme="a" data-clear-btn="true" size="10" value="<?php echo
$_POST['firstname']; ?>" />
    </div>

    <div class="ui-field-contain">
        <label for="lastname">Last Name:</label>
        <input type="text" name="lastname" id="lastname"
placeholder="Doe" data-theme="a" data-clear-btn="true" value="<?php echo $_POST['lastname'];
?>" />
    </div>

    <div class="ui-field-contain">
        <label for="phone">Phone: </label>
        <input type="tel" name="phonenumber"
id="phonenumber" placeholder="eg 555-555-5555" data-theme="a" data-clear-btn="true"
value="<?php echo $_POST['phonenumber']; ?>" />
    </div>
    <!--
    <div class="ui-field-contain">
        <label for="email">Email: </label>
        <input type="email" name="email" id="email"
placeholder="doejohn@example.com" data-theme="a" data-clear-btn="true" value="<?php echo
$_POST['email']; ?>" />
    </div>
    -->
    <div class="ui-field-contain">
        <label for="street"> Street: </label>
        <input type="text" name="street" id="street"
placeholder="e.g. 123 Center St." data-theme="a" data-clear-btn="true" value="<?php echo
$_POST['street']; ?>" />
    </div>

    <div class="ui-field-contain">
        <label for="city"> City: </label>
        <input type="text" name="city" id="city"
placeholder="e.g. Milwaukee" data-theme="a" data-clear-btn="true" value="<?php echo
$_POST['city']; ?>" />
    </div>

    <div class="ui-field-contain">
        <label for="state"> State: </label>
        <input type="text" name="state" id="state"
placeholder="e.g. Wisconsin" data-theme="a" data-clear-btn="true" value="<?php echo
$_POST['state']; ?>" />
    </div>
```

```
<div class="ui-field-contain">
    <label for="zip"> Zipcode: </label>
    <input type="number" name="zip" id="un"
placeholder="53204" data-theme="a" data-clear-btn="true" pattern="\d*" value="<?php echo
$_POST['zip']; ?>"/>
</div>
<?php } else { ?>

<div class="ui-field-
contain">

    <label for="firstname">First Name:</label>
    <input type="text" name="firstname" id="firstname"
placeholder="John" data-theme="a" data-clear-btn="true" size="10" value="<?php echo
$row['firstname']; ?>" />
</div>

<div class="ui-field-contain">
    <label for="lastname">Last Name:</label>
    <input type="text" name="lastname" id="lastname"
placeholder="Doe" data-theme="a" data-clear-btn="true" value="<?php echo $row['lastname']; ?
>"/>
</div>

<div class="ui-field-contain">
    <label for="phone">Phone: </label>
    <input type="tel" name="phonenumber"
id="phonenumber" placeholder="eg 555-555-5555" data-theme="a" data-clear-btn="true"
value="<?php echo $row['phonenumber']; ?>"/>
</div>
<!--
<div class="ui-field-contain">
    <label for="email">Email: </label>
    <input type="email" name="email" id="email"
placeholder="doejohn@example.com" data-theme="a" data-clear-btn="true" value="<?php echo
$row['email']; ?>"/>
</div>
-->
<div class="ui-field-contain">
    <label for="street"> Street: </label>
    <input type="text" name="street" id="street"
placeholder="e.g. 123 Center St." data-theme="a" data-clear-btn="true" value="<?php echo
$row['street']; ?>"/>
</div>

<div class="ui-field-contain">
    <label for="city"> City: </label>
    <input type="text" name="city" id="city"
placeholder="e.g. Milwaukee" data-theme="a" data-clear-btn="true" value="<?php echo
$row['city']; ?>"/>
</div>
<div class="ui-field-contain">
```



```
<label for="state"> State: </label>
<input type="text" name="state" id="state"
placeholder="e.g. Wisconsin" data-theme="a" data-clear-btn="true" value="<?php echo
$row['state']; ?>"/>

</div>

<div class="ui-field-contain">
    <label for="zip"> Zipcode: </label>
    <input type="number" name="zip" id="un"
placeholder="53204" data-theme="a" data-clear-btn="true" pattern="\d*" value="<?php echo
$row['zip']; ?>"/>

</div>

<?php } ?>
<div class="ui-field-contain">
    <label for="pw"> Password:</label>
    <input type="password" name="password" id="pw"
placeholder="password" data-theme="a" data-clear-btn="true">
</div>

<center><input type="submit" name="submit"
value="Submit"/></center>

<input type="hidden" name="submitted" value="TRUE" />

<?php
    if (!empty($errors))
    {
        echo '<h1 id="mainhead">Error!</
h1> <p class="error">The following error(s) occurred:<br />';
        foreach ($errors as $msg)
        {
            echo " - $msg<br />\n";
        }
        echo '</p><p>Please try
again.</p>';
    }
?>

<!-- end of style div -->
</div>
</form>
<!-- end of main content div -->
</div>

</body>
</html>
```

2. Admin Interface

a) Inventory main page - inventory.php

```
<?php
session_start();

if ($_SESSION['accttype'] != "admin"){
    echo "You do not have rights to see this page, Please contact your local admin!";
    exit();
} else {
    require_once("../mysqli_connect.php");
?>
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>

<body>

<div data-role="page" class="page" id="manage">

    <header data-role="header" id="head4" data-theme="b" class="acct-header-grid ui-grid-
b">

        <div class="ui-block-a">
            <a href="../home/userfeed.php"
                data-role="button" data-icon="arrow-l" data-iconpos="notext"
data-inline="true"
                class="ui-nodisc-icon ui-btn-left ui-corner-all"
style="background:transparent; margin: 5px 0px;">Home</a>
        </div>

        <div class="ui-block-b">
            <h3 class="ui-title">Admin</h3>
        </div>

    </header>
```

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```
<div align="center" style="margin-top: 25px; margin-bottom: 20px;">
    
    </div>

<section data-role="content">
    <ul data-role="listview" data-inset="true">
        <li data-role="list-divider">Manage Items</li>
        <li><a href="books.php">Book Inventory</a></li>
        <li><a href="regusers.php">Registered Users</a></li>
        <li><a href="reserverequests.php">Reserve Request <span class="ui-li-
count">
            <?php
                $query="SELECT * FROM books WHERE reservationid IS NOT
                NULL";

                $result = mysqli_query ($con, $query) or die (mysqli_error());
                echo mysqli_num_rows($result);
            ?>
        </span></a></li>
    </ul>

</section></section>

<footer data-role="footer" data-theme="b" data-position="fixed">
    <h5 role="heading">&copy; 49 Books</h5>
    </footer>
</div>
</body>
</html>
<?php
    }
?>
```

b) Book inventory - books.php
(Reflects same for viewing registered users)

```
<?php
session_start();

if ($_SESSION['accttype'] != "admin"){
    echo "You do not have rights to see this page, Please contact your local admin!";
    exit();
} else {
    require_once("../mysqli_connect.php");
?>
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
```

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```
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>

<body>

<div data-role="page" class="page" id="books">
<!-- panel menu -->
    <section data-role="panel" id="panel" data-position="right" data-display="overlay">
        <ul data-role="listview">
            <li data-role="list-divider">Browse Inventory</li>
            <!--<li><input type="search" id="search" placeholder="Search" data-
clear-btn="true" /></li>
            <li><a href="#">Filter Search</a></li>-->
            <li data-role="list-divider">General</a></li>
            <li><a href="../home/logout.php" class="ui-icon-lock">Logout</a></li>
        </ul>
    </section>
<!-- end of panel menu -->

    <header data-role="header" data-theme="b" class="acct-header-grid ui-grid-b">
        <div class="ui-block-a">
            <a href="inventory.php"
                data-role="button" data-icon="arrow-l" data-iconpos="notext"
data-inline="true"
                class="ui-nodisc-icon ui-btn-left ui-corner-all"
style="background:transparent; margin: 5px 0px;">Home</a>
        </div>

        <div class="ui-block-b">
            <h3 class="ui-title"> Books </h3>
        </div>

        <div class="ui-block-c">
            <a href="#panel"
                data-role="button" data-icon="bars" data-iconpos="notext"
data-inline="true"
                class="ui-nodisc-icon ui-btn-right ui-corner-all"
style="background:transparent; margin: 5px 0px;">Menu</a>
        </div>
    </header>

    <section data-role="content" class="ui-content">
```

```

<h5 style="text-align: center; font-style:italic;" >Choose item(s) to manage:</h5>
    <?php
        $query = "SELECT * FROM books";
        $result = mysqli_query($con, $query) or die
(mysqli_error($con));

        echo "<center><table data-role=\"table\" data-
mode=\"column-toggle\" id=\"books_table\" class=\"ui-responsive table-stripe my-custom-class\"
data-column-btn-theme=\"b\" data-column-btn-text=\"Change data display\" data-column-
popup-theme=\"a\">

    <thead>
        <tr>
            <th data-priority=\"1\">Author Name</th>
            <th data-priority=\"2\">Book Title</th>
            <th data-priority=\"3\">Price</th>
            <th>Delete</th>
            <th>Update</th>
        </tr>
    </thead>

    </center>";

while($row = mysqli_fetch_array($result, MYSQLI_ASSOC))
    {
        echo "<tr><td>".$row['authorlast'].", ".
$row['authorfirst']. "</td>";
        echo "<td>".$row['title']. "</td>";
        echo "<td>". number_format($row['price'],
2). "</td>";
        echo "<td><a href='#delete' data-
rel='popup' data-position-to='window' data-transition='pop' onclick='sessionStorage.isbn=' .
$row['isbn'] . \">Delete</a></td>";
        echo "<td><a href='updatebook.php?
isbn=' . $row['isbn'] . \">Update</a></td></tr>";
    }

    echo "</table></center>";
    mysqli_free_result ($result); // Free up the resources.
    mysqli_close($con); // Close the database
connection.

?>

    <div data-role="popup" id="delete" data-overlay-theme="b" data-theme="b"
data-dismissable="false" style="max-width:400px;">
        <a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-
icon-delete ui-btn-icon-notext ui-btn-right">Close</a>
        <header data-role="header" data-theme="a"><h6>Fill Book</h6></header>

        <div role="main" class="ui-content">

```

```

                                <h4 class="ui-title">Are you sure you want to fill and delete this book?
</h4>

                                <center><a href="#" id="deletebook" class="ui-btn
ui-corner-all ui-shadow ui-btn-inline ui-btn-b" data-rel="back" data-transition="flow">Delete</a>
                                <a href="#" class="ui-btn ui-corner-all ui-
shadow ui-btn-inline ui-btn-b" data-rel="back">Cancel</a></center>
                                </div>
                                </div>

                                <footer data-role="footer" data-position="fixed" data-theme="b" data-tap-toggle="false"
class="manage-footer ui-grid-c">
                                <div data-role="navbar" class="manage-footer">

                                <ul>
                                <li><a href="addbook.php" data-icon="plus" data-iconpos="top" />add</a></li>
                                </ul>
                                </div>
                                </footer>
                                </div>

                                <script type="text/javascript">
                                $( '#deletebook' ).click(function(){
                                    var isbn = sessionStorage.getItem('isbn');
                                    $.post(
                                        "deletebook.php",
                                        { isbn: isbn }, function(){
                                            location.reload()
                                        }
                                    );
                                });
                                </script>
                                <?php
                                }
                                ?>
                                <!-------
                                END INVENTORY PAGE
                                ----->
                                </body>
                                </html>

```

c) Adding books - addbook.php
(Reflects same for adding users)

```

<?php
session_start();
if ($_SESSION['accttype'] != "admin")
{
    echo "You do not have rights to see this page, Please contact your local admin!";
    exit();
}

```

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```
}
else
{
    require_once('../mysqli_connect.php');
    if(isset($_POST['submitted']))
    {
        $errors = array(); //initialize error array.

        $isbn = mysqli_real_escape_string($con, trim($_POST['isbn']));
        if (empty($isbn)) {
            $errors[] = 'You forget to enter the book isbn.';
        }

        $authorfirst = mysqli_real_escape_string($con, trim($_POST['authorfirst']));
        if (empty($authorfirst)) {
            $errors[] = 'You forget to enter your Author first name.';
        }

        $authorlast = mysqli_real_escape_string($con, trim($_POST['authorlast']));
        if (empty($authorlast)) {
            $errors[] = 'You forget to enter your Author last name.';
        }

        $title = mysqli_real_escape_string($con, trim($_POST['title']));
        if(empty($title)) {
            $errors[] = 'You forgot to enter the Title .';
        }

        $price = mysqli_real_escape_string($con, trim($_POST['price']));
        if(empty($price)) {
            $errors[] = 'You forgot to enter Price.';
        }

        if(empty($errors))
        {
            $query = "SELECT * FROM books WHERE isbn='$isbn'";
            $result = mysqli_query($con, $query) or die(mysqli_error($con)); //
Run the query.
            if (mysqli_num_rows($result) == 0)
            {
                $query = "INSERT INTO books (isbn, authorlast, authorfirst,
title, price)
                VALUES ('$isbn', '$authorlast', '$authorfirst', '$title', '$price')";

                $result = mysqli_query($con, $query) or
die(mysqli_error($con));

                if($result)
                {
                    echo "
```

```

    <html>
    <head>
    <meta charset='utf-8'>
    <meta name='viewport' content='initial-
scale=1.0, maximum-scale=1.0, user-scalable=no, width=device-width' />
    <title>49 Books</title>

    <link rel='stylesheet'
href='http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css' />
    <script src='http://code.jquery.com/jquery-
1.9.1.min.js'></script>
    <script src='http://code.jquery.com/mobile/
1.4.2/jquery.mobile-1.4.2.min.js'></script>

    <link rel='stylesheet' href='../css/style.css'
type='text/css' />
    <link rel='stylesheet' href='../css/small.css'
type='text/css' />

    </head>

    <body>
    <div data-role='page' class='page'
id='addbook'>

    <div role='success' class='ui-content'>
    <center><h4
class='ui-title'>Successfully Added Book</h4>

    <a href='books.php' class='ui-btn ui-corner-all ui-shadow ui-btn-inline ui-btn-b' data-
transition='flow'>Continue</a></center>

    </div>
    </div>
    </div>
    </body>
    </html>
    ";
    exit();

```

```

    } else {
        echo "<p>The record could not be added due to a
system error" . mysqli_error() . "</p>";
        echo "<a href=books.php>Go Back</a>";
    }
}
else
{
    $errors[] = 'This ISBN already exists in database.';
}
} // End of If (empty($errors))
mysqli_close($con);
}
else

```


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```
{ // Form has not been submitted
    $errors = NULL;
} // End of the main Submitted conditional

?>
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>

<body>

<div data-role="page" id="addbook" data-theme="a">
    <header data-role="header" data-theme="b">
        <a href="books.php" data-inline="true" data-mini="true"
class="ui-btn-left">Cancel</a>
        <h3 align="center">Add Book Form</h3>
    </header>

    <div data-role="main" class="ui-content">
        <form id="newuser" action="<? echo $PHP_SELF;?>" method="post"
data-ajax="false">
            <div style="padding:10px 10px;">

                <div class="ui-field-contain">
                    <label for="isbn">Book ISBN:</label>
                    <input type="text" name="isbn" id="isbn" value="<?
php echo $_POST['isbn']; ?>" placeholder="2345-987-9876" data-theme="a" data-clear-btn="true"
size="10">
                </div>

                <div class="ui-field-contain">
                    <label for="fn">First Name:</label>
                    <input type="text" name="authorfirst"
id="authorfirst" value="<?php echo $_POST['authorfirst']; ?>" placeholder="John" data-theme="a"
data-clear-btn="true" size="10">
                </div>

                <div class="ui-field-contain">
```

```
<label for="ln">Last Name:</label>
<input type="text" name="authorlast"
id="authorlast" value="<?php echo $_POST['authorlast']; ?>" placeholder="Doe" data-theme="a"
data-clear-btn="true">

</div>

<div class="ui-field-contain">
    <label for="title">Title: </label>
    <input type="text" name="title" id="title" value="<?
php echo $_POST['title']; ?>" placeholder="The Wind and willows" data-theme="a" data-clear-
btn="true">

</div>

<div class="ui-field-contain">
    <label for="price">Price: </label>
    <input type="price" name="price" id="price"
value="<?php echo $_POST['price']; ?>" placeholder="30.50" data-theme="a" data-clear-
btn="true">

</div>

<center>
<input type="submit" name="submit"
value="Submit"/></center>

<input type="hidden" name="submitted" value="TRUE" />

<center>
<?php
    if (!empty($errors))
    {
        echo '<h1>Error!</h1>';
        <p>The following error(s) occurred:<br />';
        foreach ($errors as $msg)
        {
            echo "$msg<br />";
        }
        echo '</p>';
        echo '<p>Please try again.</p>';
    }
?>
</center>
<!-- end of style div -->
</div>
</form>
<!-- end of main content div -->
</div>

<!-------
END ADD USERS PAGE
----->
</body>
```

```
</html>
<?php
}
?>
```

d) Delete books - deletebook.php
(Reflects same for deleting users)

```
<?php
session_start();
//check session first
if ($_SESSION['acctype'] != "admin"){
    echo "You do not have rights to see this page, Please contact your local admin!";
    exit();

} else {
    require_once ('../mysqli_connect.php');
    $isbn = $_POST['isbn'];
    $query = "DELETE FROM books WHERE isbn=$isbn";
    mysqli_query ($con, $query) or die(mysqli_error($con));

    mysqli_close($con);
}??>
```

Admin Interface: Code for displaying books reserves to be filled - reserverequests.php

```
<?php
session_start();

if ($_SESSION['acctype'] != "admin"){
    echo "You do not have rights to see this page, Please contact your local admin!";
    exit();

} else {

    require_once("../mysqli_connect.php");

?>
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="initial-scale=1.0, maximum-scale=1.0, user-scalable=no,
width=device-width" />
<title>49 Books</title>

<link rel="stylesheet" href="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.css" />
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<script src="http://code.jquery.com/mobile/1.4.2/jquery.mobile-1.4.2.min.js"></script>

<link rel="stylesheet" href="../css/style.css" type="text/css"/>
<link rel="stylesheet" href="../css/small.css" type="text/css" />
</head>
```

```
<body>

<div data-role="page" class="page" id="reserverequests">

    <section data-role="panel" id="panel" data-position="right" data-display="overlay">
        <ul data-role="listview">
            <li data-role="list-divider">General</a></li>
            <li><a href="../home/userfeed.php">Back to 49 Books</a></li>
        </ul>
    </section>

    <header data-role="header" data-theme="b" class="acct-header-grid ui-grid-b">
        <div class="ui-block-a">
            <a href="inventory.php"
                data-role="button" data-icon="arrow-l" data-iconpos="notext"
data-inline="true"
                class="ui-nodisc-icon ui-btn-left ui-corner-all"
style="background:transparent; margin: 5px 0px;"></a>
        </div>

        <div class="ui-block-b">
            <h3 class="ui-title"> Request </h3>
        </div>

        <div class="ui-block-c">
            <a href="#panel"
                data-role="button" data-icon="bars" data-iconpos="notext"
data-inline="true"
                class="ui-nodisc-icon ui-btn-right ui-corner-all"
style="background:transparent; margin: 5px 0px;"></a>
        </div>
    </header>

    <section data-role="content" class="ui-content">
        <h5 style="text-align: center; font-style:italic; padding: 5px auto 5px auto;">Book
Reserve Request</h5>

        <fieldset data-role="controlgroup">
            <?php
                $query = "SELECT
books.reservationid, books.authorfirst, books.authorlast, books.title, books.price, books.isbn,
users.user_id, users.firstname, users.lastname
FROM
books
INNER
JOIN users
ON
books.reservationid=users.user_id
ORDER
BY books.reservationid";
```

```

$query) or die (mysqli_error($con));

//Table header:
echo "<center>";

echo "<table data-role='\"table\""
data-mode='\"column-toggle\"' id='\"books_table\"' class='\"ui-responsive table-stripe my-custom-
class\"' data-column-btn-theme='\"b\"' data-column-btn-text='\"Change data display\"' data-
column-popup-theme='\"a\"">

<thead>
<tr>

<th data-
priority='\"2\"">Author Name</th>

<th data-
priority='\"1\"">Book Title</th>

<th data-
priority='\"3\"">Price</th>

<th data-
priority='\"4\"">Reserved By</th>

<th>Cancel</th>
<th>Fill</th>

</tr>
</thead>";
echo "</center>";

//Fetch and Print all records ....

while($row =
mysqli_fetch_array($result, MYSQLI_ASSOC))
{
echo "<tr><td><strong>".
$row['authorlast'].", ".$row['authorfirst'].</strong></td>";
echo "<td>".
$row['title'].</td>";
number_format($row['price'], 2).</td>";
echo "<td>".
$row['lastname'] . " " . $row['firstname'].</td>";
//echo "<td><a
id='cancelbook' href=cancelbook.php?isbn=".$row['isbn'].>Cancel</a></td>";
//echo "<td><a
id='deletebook' href=deletebook.php?isbn=".$row['isbn'].>Fill</a></td></tr>";
echo "<td><a
href='#cancel' data-rel='popup' data-position-to='window' data-transition='pop'
onclick='sessionStorage.isbn=' . $row['isbn'] . '>Cancel</a></td>";
echo "<td><a
href='#delete' data-rel='popup' data-position-to='window' data-transition='pop'
onclick='sessionStorage.isbn=' . $row['isbn'] . '>Fill</a></td></tr>";

```

```
}

echo "</table>";
mysqli_free_result ($result); // Free

up the resources.

mysqli_close($con); // Close the
database connection.

?>

<div data-role="popup" id="cancel" data-overlay-theme="b" data-
theme="b" data-dismissible="false" style="max-width:400px;">
  <a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-
icon-delete ui-btn-icon-notext ui-btn-right">Close</a>
  <header data-role="header" data-theme="a"><h6>Cancel Book</h6></header>

  <div role="main" class="ui-content">
    <h4 class="ui-title">Are you sure you want to cancel this book
reservation?</h4>

    <center><a href="#" id="cancelBook" class="ui-btn
ui-corner-all ui-shadow ui-btn-inline ui-btn-b" data-rel="back" data-transition="flow">Cancel
Reservation</a>

    <a href="#" class="ui-btn ui-corner-all ui-
shadow ui-btn-inline ui-btn-b" data-rel="back">Cancel</a></center>
  </div>
</div>

<div data-role="popup" id="delete" data-overlay-theme="b" data-theme="b"
data-dismissible="false" style="max-width:400px;">
  <a href="#" data-rel="back" class="ui-btn ui-corner-all ui-shadow ui-btn-a ui-
icon-delete ui-btn-icon-notext ui-btn-right">Close</a>
  <header data-role="header" data-theme="a"><h6>Fill Book</h6></header>

  <div role="main" class="ui-content">
    <h4 class="ui-title">Are you sure you want to fill and delete this book?
</h4>

    <center><a href="#" id="deletebook" class="ui-btn
ui-corner-all ui-shadow ui-btn-inline ui-btn-b" data-rel="back" data-transition="flow">Delete</a>
    <a href="#" class="ui-btn ui-corner-all ui-
shadow ui-btn-inline ui-btn-b" data-rel="back">Cancel</a></center>
  </div>
</div>

<footer data-role="footer" data-position="fixed" data-theme="b" data-tap-toggle="false"
class="manage-footer ui-grid-b">
```

```
<div data-role="navbar" class="manage-footer">

    </div>
</footer>
</div>
</div>

<script type="text/javascript">
    $('#cancelBook').click(function(){
        var isbn = sessionStorage.getItem('isbn');

        $.post(
            "cancelbook.php",
            { isbn: isbn }, function(){
                location.reload()
            });
    });

    $('#deletebook').click(function(){
        var isbn = sessionStorage.getItem('isbn');
        $.post(
            "deletebook.php",
            { isbn: isbn }, function(){
                location.reload()
            });
    });
</script>
</body>
</html>

<?php
    }
?>
```

e) [Book reserve request - reservebook.php](#)

```
<?php
session_start();
require_once ('../mysql_connect.php');

$isbn = $_POST['isbn'];
$user_id = $_SESSION['user_id'];

if (isset($_POST['isbn']))
{
    $query = "SELECT * FROM books WHERE isbn=$isbn";
    $result = mysqli_query ($con, $query) or die(mysqli_error($con));
    $row = mysqli_fetch_array($result, MYSQL_ASSOC);
```

```
        if ($row > 0)
        {
            $query = "UPDATE books SET reservationid=$user_id WHERE isbn=$isbn";
            mysqli_query ($con, $query) or die(mysqli_error($con));
        }
    }
    mysqli_close($con);
?>
```

Code for canceling a book reserve - cancelbook.php

```
<?php
session_start();
require_once ('../mysqli_connect.php');

$isbn = $_POST['isbn'];

if (isset($_POST['isbn']))
{
    $query = "SELECT * FROM books WHERE isbn=$isbn";
    $result = mysqli_query ($con, $query) or die(mysqli_error($con));
    $row = mysqli_fetch_array($result, MYSQL_ASSOC);
    if ($row > 0)
    {
        $query = "UPDATE books SET reservationid=null WHERE isbn=$isbn";
        mysqli_query ($con, $query) or die(mysqli_error($con));
    }
}

mysqli_close($con);

?>
```

Code to process log out script - logout.php

```
<?php
session_start();
require_once("../mysqli_connect.php");

$_SESSION=array(); // empty session data

session_regenerate_id(true); // assign a new session id and delete old data

session_destroy();
session_write_close();
mysqli_close($con);
header("Location: index.php");
?>
```


f) Main Style sheet - style.css

```
/* 49 Books CSS */
html, body{height: 100%;}

/*****GENERAL STYLING *****/
.clear-fix{clear: both;}

#feed img, #userreserve img{width: 42px;height: 62px;border: 1px solid #999;margin-left:
5px;margin-top: 5px;padding: 3px 10px 3px 10px;}

/***** LOGIN PAGE STYLING *****/
#login footer{bottom:0; position:absolute !important; top: auto !important; width:100%;}
#signin .ui-input-text{width: 60%;}
#signin .ui-block-a{width: 32%;}
#signin .ui-block-b{width: 68%; /* 360 px wide screen target / ref = result 270 px */}
#signin .ui-btn{width: 140% !important;}
#signin .ui-grid-solo{width: auto;padding-left: 30.5%;}

/***** UNIVERSAL USER FEED STYLING *****/
@media all{
.feed-header-grid{padding: 10px 0px 10px 0px;}
.feed-header-grid.ui-grid-b .ui-block-a {width: 10%; margin-left: 15px;}
.feed-header-grid.ui-grid-b .ui-block-b {width: 60%;margin-top: 5px;}
.feed-header-grid.ui-grid-b .ui-block-c {width: 30%;margin-top: 5px;}
}
.my-signgrid.ui-grid-a .ui-block-a{width: 30%;}
.my-signgrid.ui-grid-a .ui-block-b{width:70%;}

/*****USER ACCOUNT STYLING *****/
.acct-header-grid{}
.acct-header-grid.ui-grid-b .ui-block-a {width: 15%; margin-top: 5px;}
.acct-header-grid.ui-grid-b .ui-block-b {width: 70%; margin-top: 5px; padding:0;}
.acct-header-grid.ui-grid-b .ui-block-c {width: 15%;margin-top: 5px;}
.page #userinfo table{max-width: 400px;margin-top: 20px;margin-bottom: 20px;margin-right:
auto;margin-left: auto;border-collapse: collapse;}
.manage-footer.ui-btn .ui-btn-inner {padding-top: 40px !important;}
.manage-footer.ui-btn .ui-icon {width: 45px!important; height: 35px!important; margin-left: -
24px !important; box-shadow: none!important; -moz-box-shadow: none!important; -webkit-box-
shadow: none!important; -webkit-border-radius: none !important; border-radius: none !
important; }
```

g) Media queries - small.css

(Make app responsive to smaller screens)

```
/* small phone screens iPhone */
@media (max-width: 320px){
.some.ui-content{
margin-bottom: 60px;
}
```

```
#guestreserve, #reserve, #cancel{
    max-width: 250px !important;
}
*{
    font-size: 12px;
}
#feed h2, #userreserve h2{
    font-size: 12px;
}
.ui-panel{
    font-size: 14px;
}
.ui-footer .ui-btn-inner {
    padding: 1px !important;
}
.ui-footer .ui-btn-text{
    font-size: 12px;padding: 5px;
}
#signup .ui-header .ui-btn-inner{
}
```

IX. Lessons Learned

For this senior capstone project we decided to make a mobile web application for a fictional local bookstore; 49 Books. We wanted to focus on their option of enhancing user experience for the store by providing a convenient interface they could use to reserve pickups. It was also seen as a more convenient way for the store to keep up with and manage their inventory and regular users.

While we encountered more troubles than we initially expected we were able to create a product that could potentially help improve operations of a real bookstore.

Lack of skill when it came to working with certain technologies important to the execution of the project became a big problem when trying to work together productively. This also proved to be a challenge in making the mobile web application function the way we wanted. This led to the team having to re-evaluate parts of the application that proved to be outside of the initial scope proposed. Another major problem in being able to effectively execute production of application was being able to properly manage version control of the project files. We found version control to be difficult without the use of 3rd party software, and an important aspect in combining multiple programmers' code and files.

What we can all take away from this for the future is to get a better understanding of each of the team members skill sets and be sure of the technologies that they are

comfortable working with. Spending substantially more time in the planning phase as well as proper delegation would have prevented some halts in the execution phase. Having knowledge of version control aids, such as Github, will be very important to avoid loss of changes and version conflicts with code. Keeping deadlines and proactively dealing with team members who do not contribute or know what was expected of them is also important. Communication is very important in a group project, and we have seen many ways in which it can inhibit a project completion; through scheduling, delegation issues, unclear milestones, and asking for help.