Software Engineering CSC 648/848 Fall 2019
Gator Trader

Section 2
Team 10
Milestone 2
10/11/2019

Team

Ibraheem Chaudry	Team Lead (ichaudry@mail.sfsu.edu)
Tom Sechrist	GitHub Master
Alexander Beers	Back-end Lead
Lance Santos	Front-end Lead
Paul Lueng	Front-end
Saleh Zahran	Back-end

		Comments
Date Submitted	10/18/2019	• Changes to be made in requirements. Deletions + Additions • Some aspects of the mockups need to be adjusted • Minor changes in database architecture to ensure uniformity with the mockups • The rest of the doc looks good
Date Revised	11/5/2019	• All changes made as suggested by Dr. Petkovic

1. Functional Requirements - prioritized

Priority 1:

ID	Details
1	Unregistered users shall be able to register for an account.
2	Unregistered users shall be able to browse through the website.
2.1	Unregistered users shall be able to browse items in a specific category and sort it by price
3	Unregistered users shall be able to use the search bar to search for items.
4	Unregistered users shall be able to view all item details.
5	Unregistered users shall be able to fill out a form to post an item for sale with details including name, description, price, and image of item.
6	Registered user shall be able to see a list of meeting spots at the sfsu campus for pickup or sale of an item.
7	Registered users shall be to do whatever an unregistered user can do.
8	Registered users shall be able to log into their accounts on the web application.
9	Registered users shall be able to fill a form for item sale just like unregistered users and successfully request the admin for post approval.
10	Registered users shall be able to contact other registered users about products they intend to buy.
11	Registered users shall be able to receive messages from other registered users and admin.
15	Administrator shall be able to log into a personalized admin portal with privileges to approve or decline pending posts.
16	Administrator shall be required to approve pending posts before they go live.
18	Administrator shall be able to reject post proposals from registered users.
19	Administrator shall be able to send messages to users.
20	Administrators shall be able to see the info of a registered user.
21	Administrator shall be able to ban users.
22	Administrators shall be able to remove a post

Priority 2:

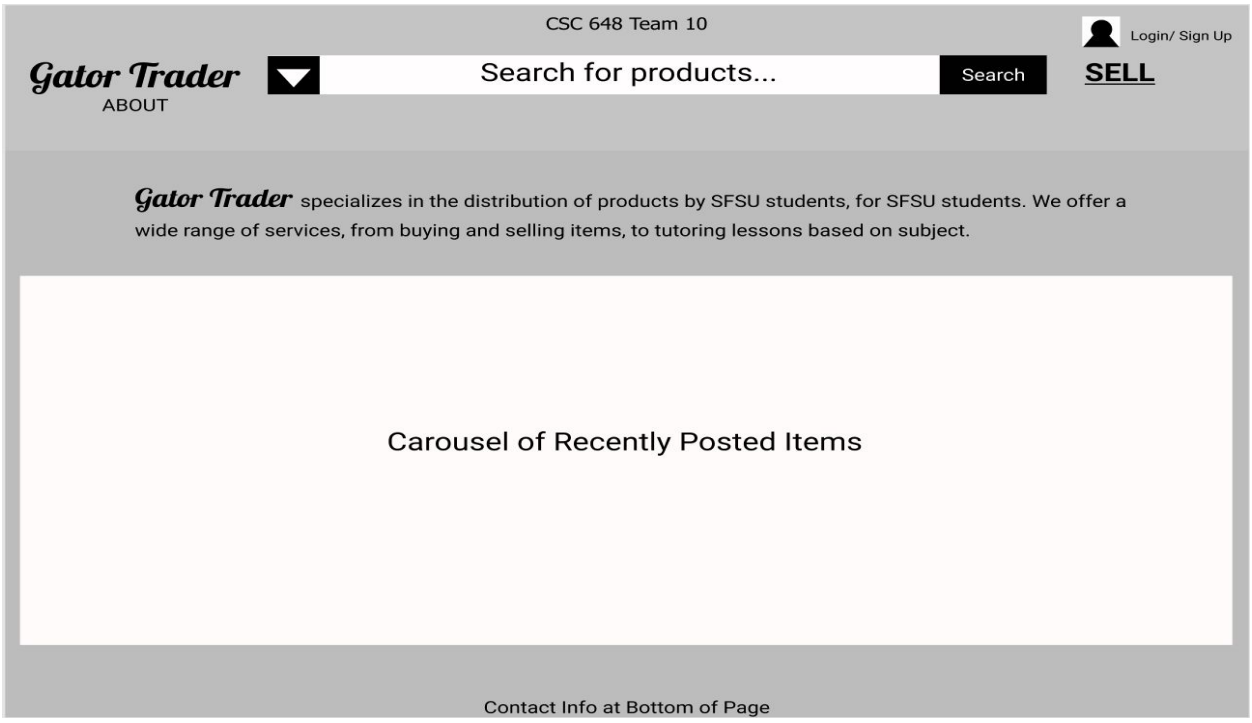
ID	Details
5.1	Unregistered users shall be able to add multiple images for the item they are trying to post for sale.

Priority 3:

ID	Details
12	Registered users shall be able to edit their posts.
13	Registered users shall be able to add items to a shopping cart.
14	Registered users shall be able to view previous transactions.
17	Administrator shall be able to approve pending edits to existing posts.

2. UI Mockups and Storyboards (high level only)

1) Joe is new to gator trader and is looking for an affordable couch. He browses the selection of furniture and clicks on a post he is interested in. To contact the seller he is prompted to create an account.



CSC 648 Team 10

Gator Trader

ABOUT

Search for products... Search

Login/ Sign Up

SELL

Furniture

$$$$

$$$$

$$$$

$$$$

CSC 648 Team 10

Gator Trader

ABOUT

Search for products... Search

Login/ Sign Up

SELL

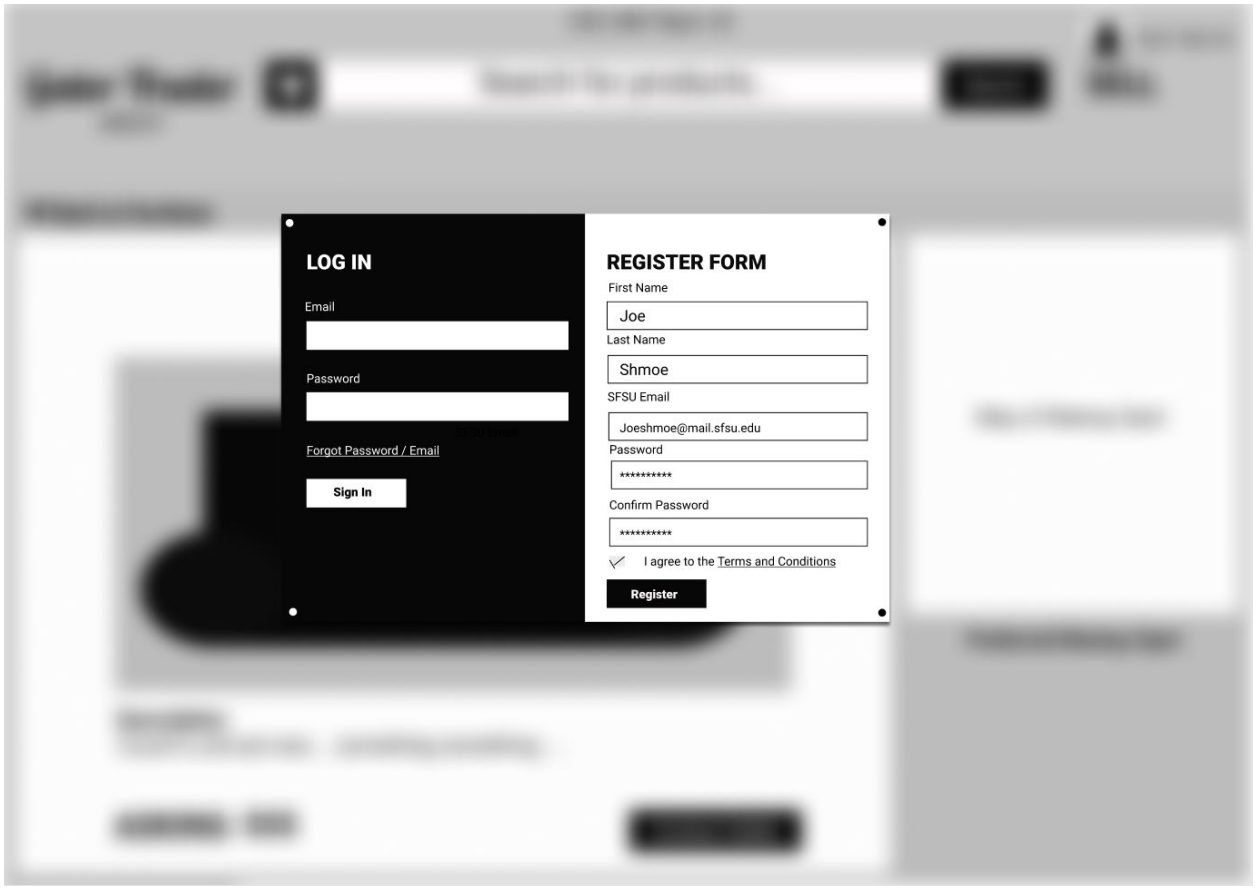
◀ Back to Furniture

Slightly Used Sofa

Description:
Couch is almost new.... something something ....

ASKING: $$$

Contact Seller



CSC 648 Team 10

Gator Trader
ABOUT

Search for products... Search

Joe
SELL

Contact Seller

To: Jackdaniels@mail.sfsu.edu

From: JoeShmoe@mail.sfsu.edu
Item ID # 12345
Name: Slightly Used Couch

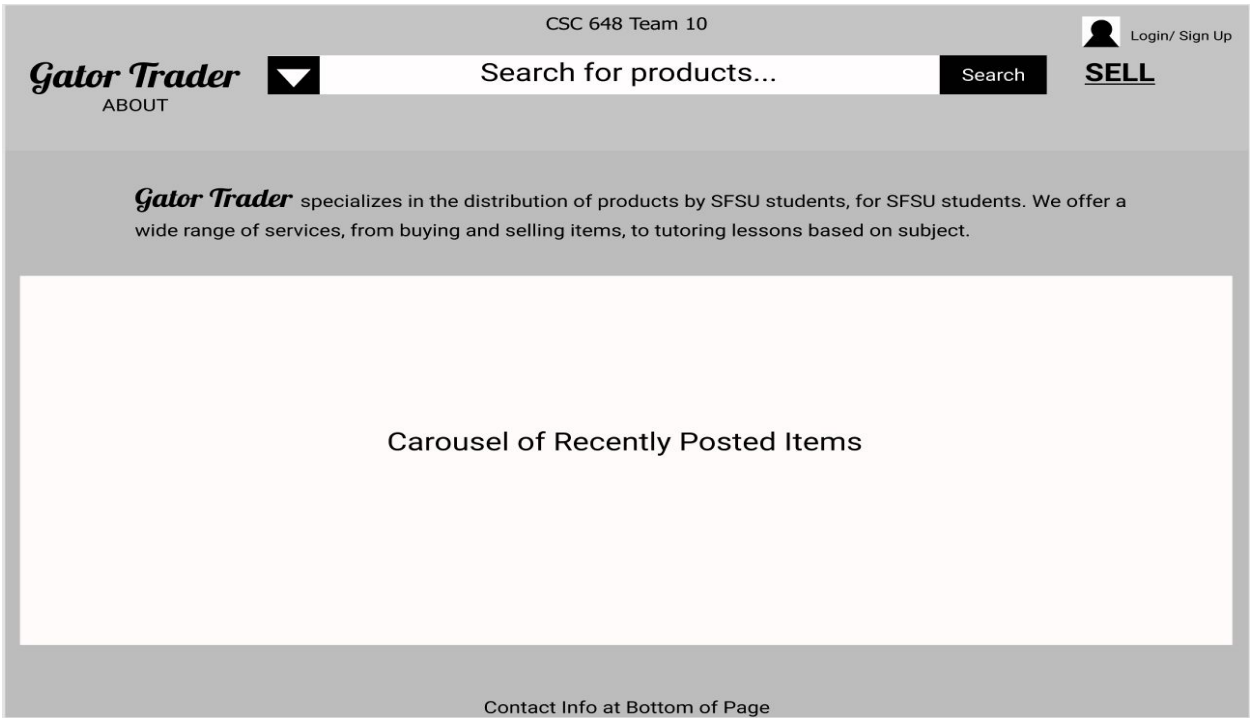
10/25/19

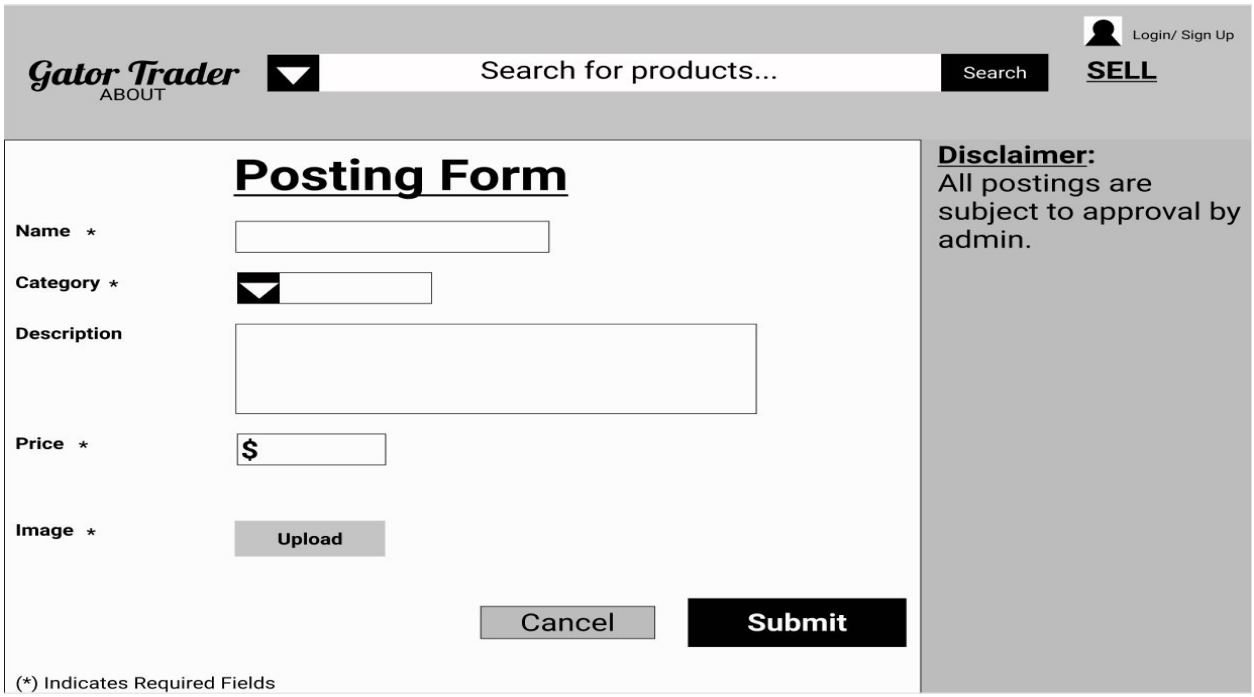
Hi, I'm interested in your couch post. Which meet up spot would you like to meet up at?

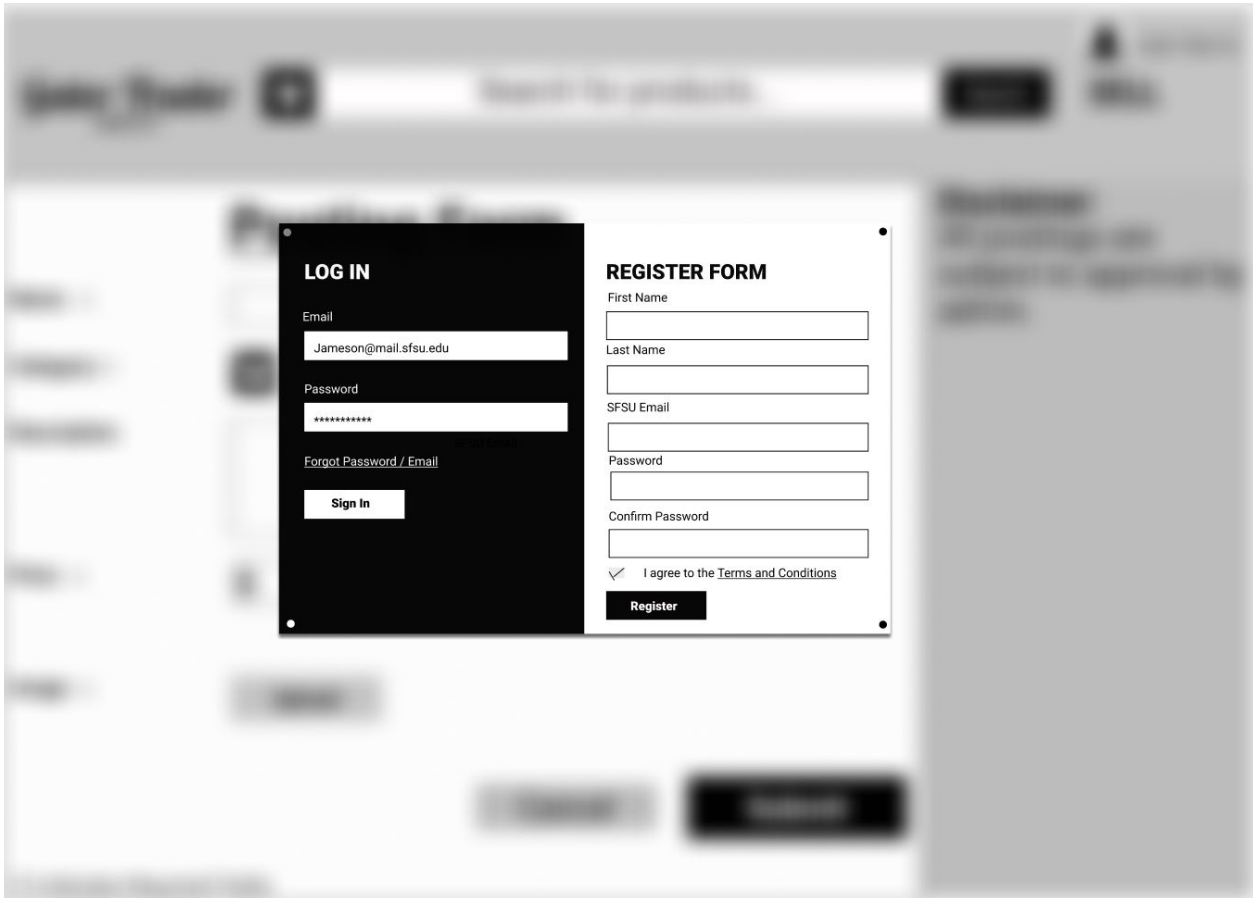
Type a message...

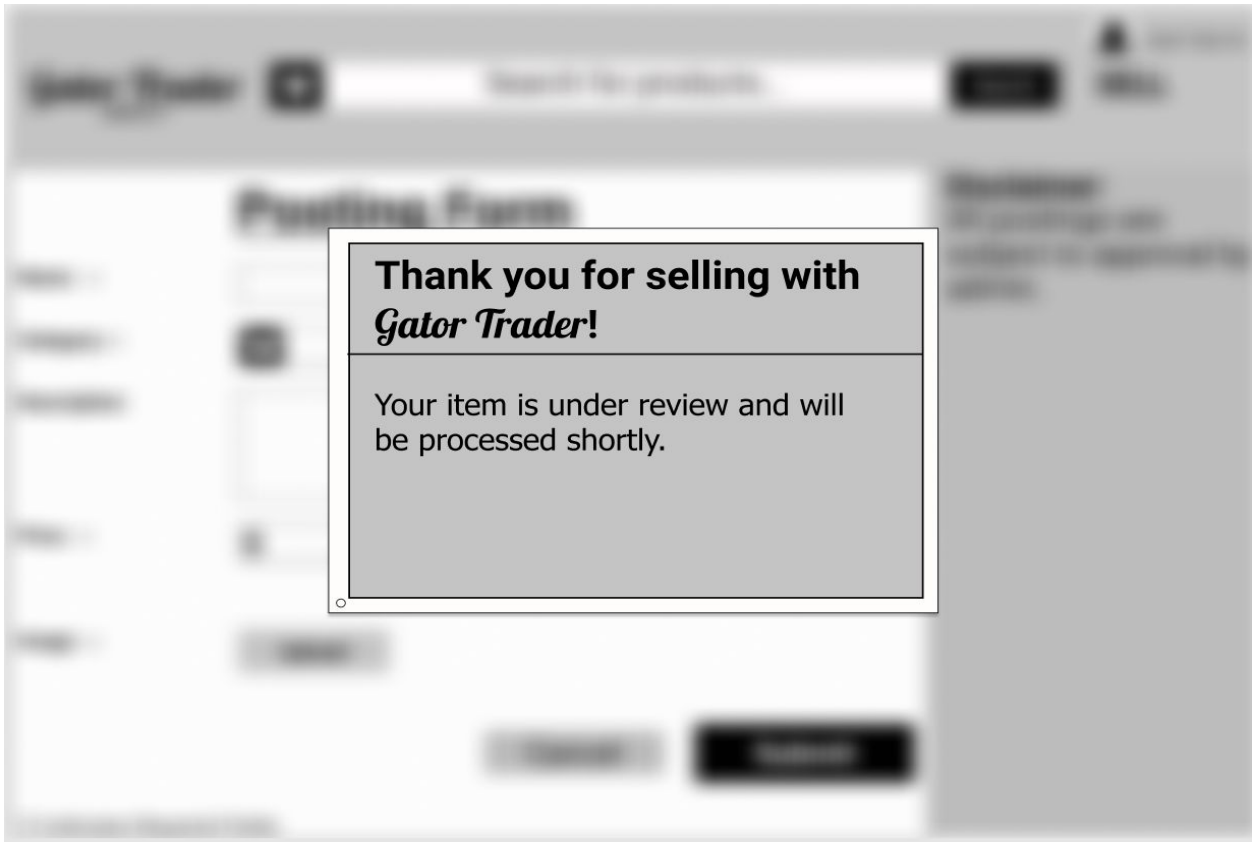
Cancel Send

2) Jameson has been buying from gator trader for awhile, now he wants to sell an item. He selects the “sell” option and fills out the item form. To complete the submission he is prompted to login.

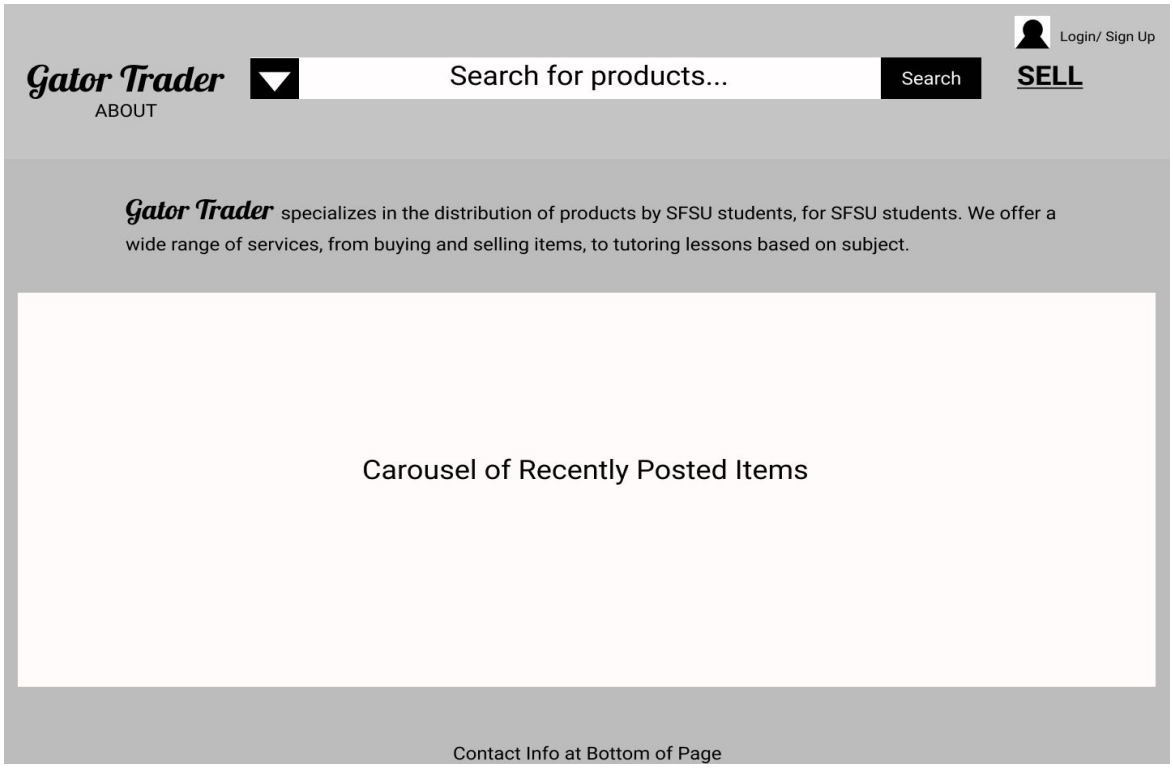


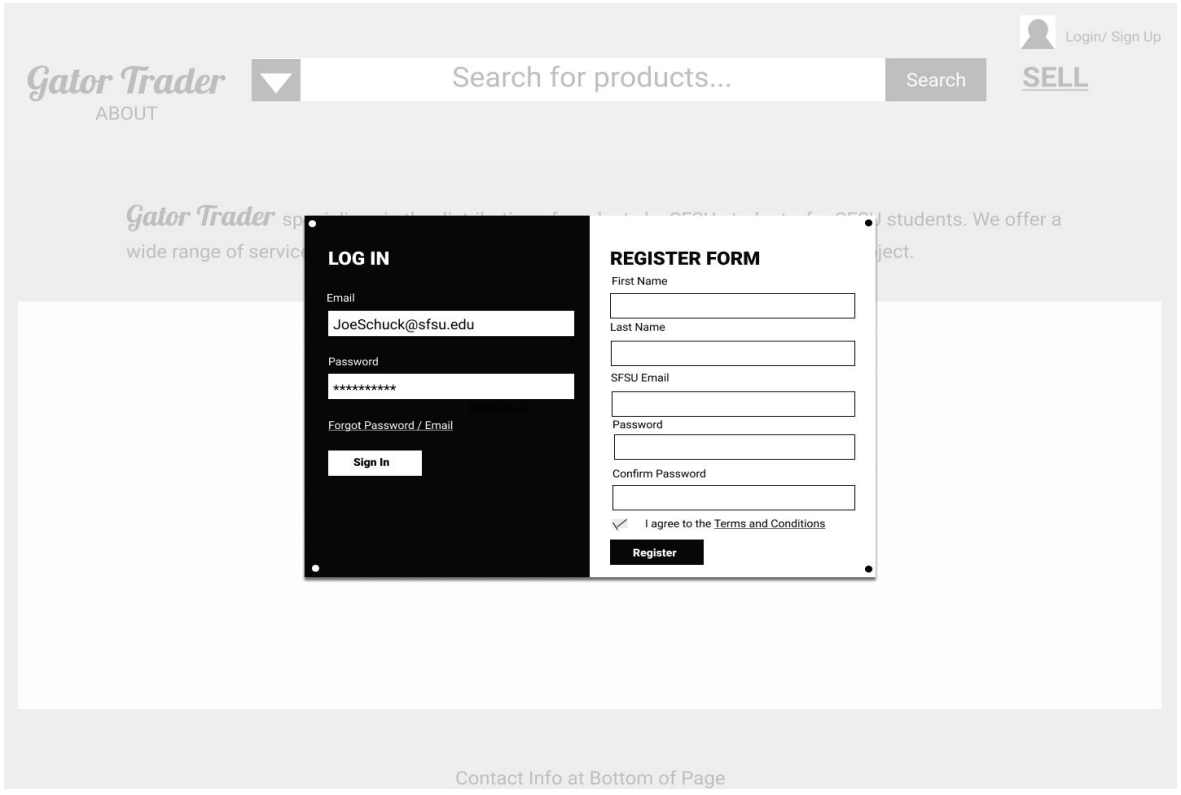

Gator Trader
ABOUT
Search for products...
Search
Login/ Sign Up
SELL
Posting Form
Name *
Category *
Description
Price *
$
Image *
Upload
Cancel
Submit
(*) Indicates Required Fields
Disclaimer:
All postings are subject to approval by admin.

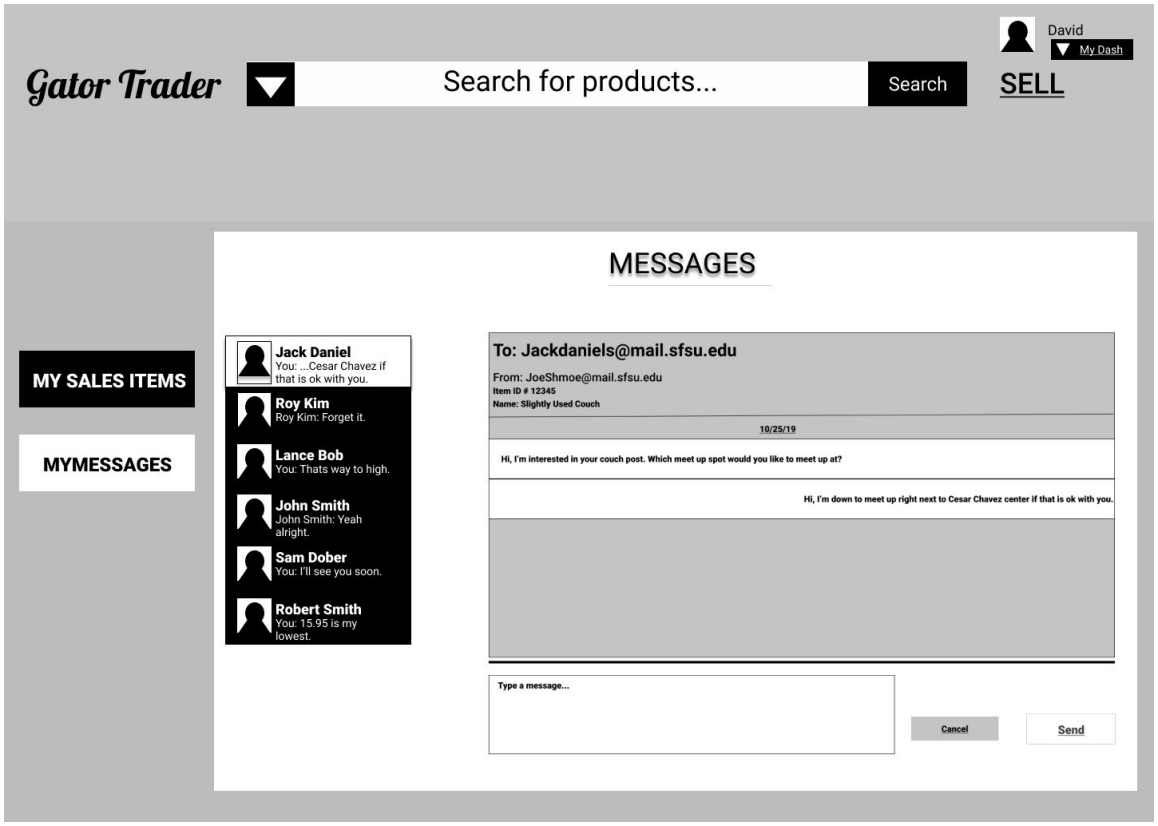

LOG IN
Email
Jameson@mail.sfsu.edu
Password
****
Forgot Password / Email
Sign In
REGISTER FORM
First Name
Last Name
SFSU Email
Password
Confirm Password
I agree to the Terms and Conditions
Register


Posting Form
Thank you for selling with Gator Trader!
Your item is under review and will be processed shortly.

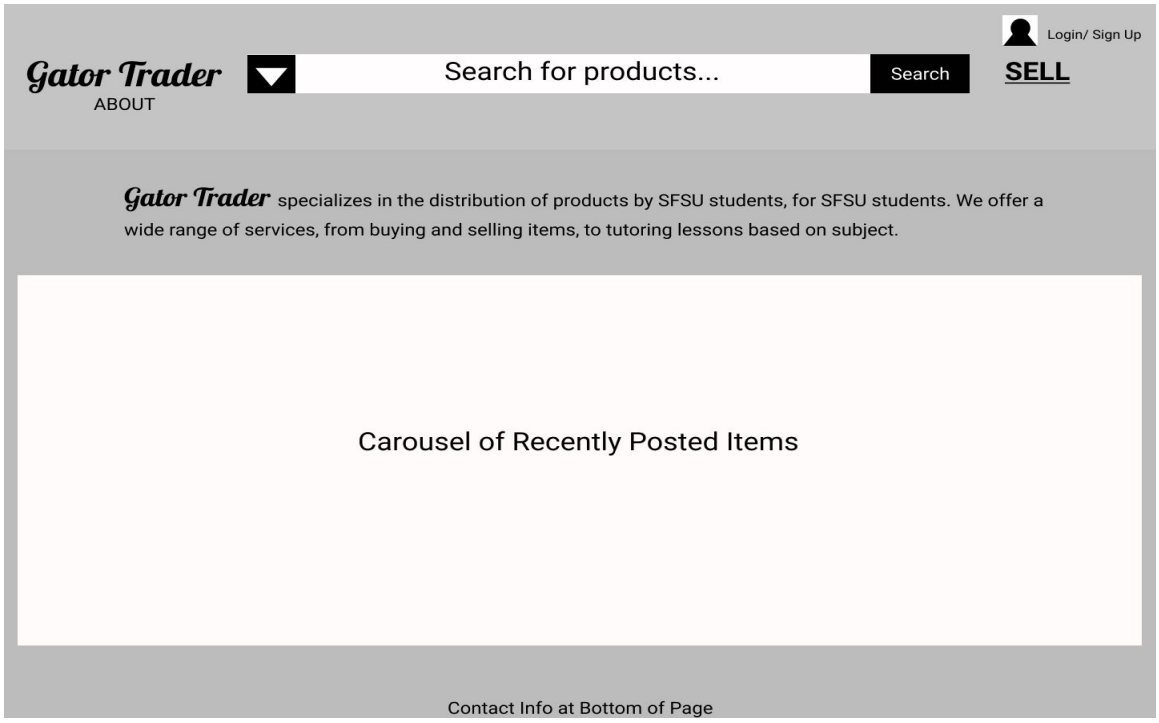
3) David signs in to check message dashboard for messages from potential buyers or sellers he has contacted recently.

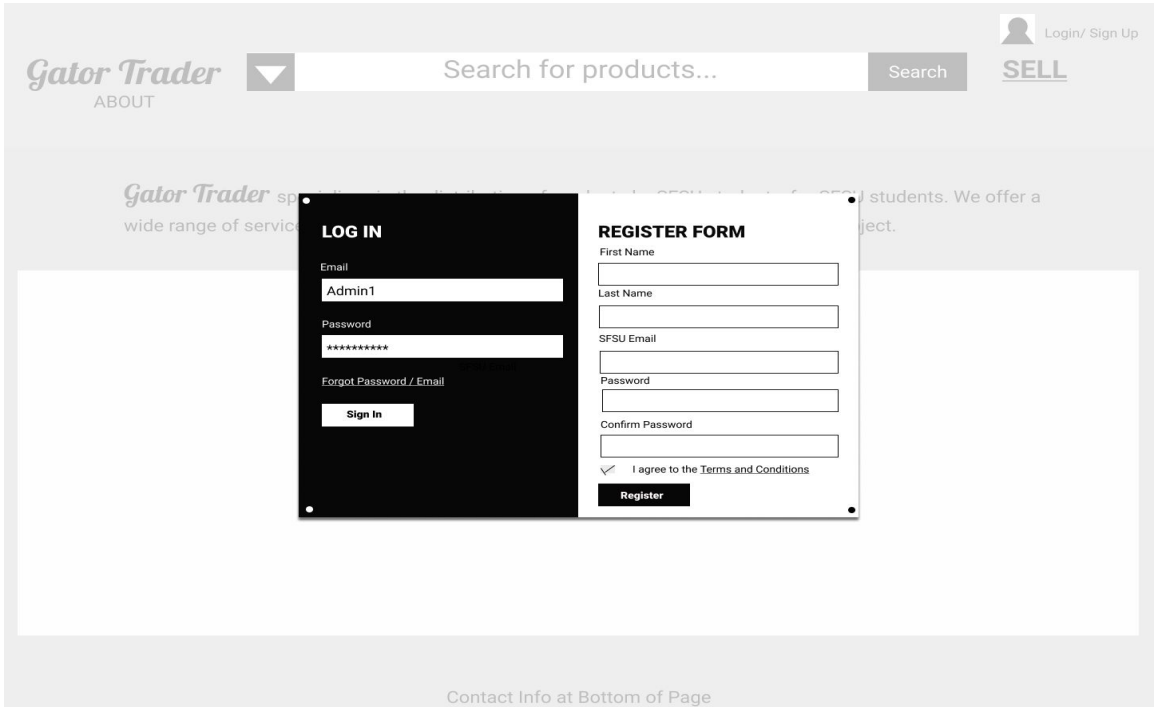





Gator Trader
Search for products...
Search
David
My Dash
SELL
MESSAGES
MY SALES ITEMS
MYMESSAGES
Jack Daniel
You: ...Cesar Chavez if that is ok with you.
Roy Kim
Roy Kim: Forget it.
Lance Bob
You: Thats way to high.
John Smith
John Smith: Yeah alright.
Sam Dober
You: I'll see you soon.
Robert Smith
You: 15.95 is my lowest.
To: Jackdaniels@mail.sfsu.edu
From: JoeShmoe@mail.sfsu.edu
Item ID # 12345
Name: Slightly Used Couch
10/25/19
Hi, I'm interested in your couch post. Which meet up spot would you like to meet up at?
Hi, I'm down to meet up right next to Cesar Chavez center if that is ok with you.
Type a message...
Cancel
Send

4.Nigel presses the login button at the top right of the screen and signs in with his Administrator account using his administrator credentials, to approve and scrutinize posts.





Gator Trader

Administrator
Sign Out

ITEMS PENDING APPROVAL

ALL ITEMS

ALL MESSAGES

ALL USERS

ADMINISTRATOR DASHBOARD

◀ Previous | 1 | 2 | 3 | 4 | 5 | Next ▶ Showing 8 of 40

Order ID	Status	Seller	Date	Category	Total
Order #25	Open ▼	Roy Kim	10/12/2019,13:25	Furniture	$ 55.67
Order #26	Accepted ▼	Lance bob	10/13/2019, 14:55	Books	$ 25.87
Order #27	Declined ▼	John Smith	09/12/2019, 13:25	Supplies	$ 12.62
Order #28	Resubmission ▼	Melissa George	09/14/2019, 13:25	Electronics	$ 50.12
Order #29	Declined ▼	Sam Smith	08/14/2019, 1:25	Tutoring	$255.67
Order #30	Accepted	George Lopez	07/22/2019, 16:25	Supplies	$5.17
Order #31	Open ▼	David Klumb	10/12/2019, 13:25	Books	$ 42.14
Order #32	Resubmission ▼	Robert Smith	11/12/2018, 3:25	Electronics	$ 75.28

◀ Previous | 1 | 2 | 3 | 4 | 5 | Next ▶

Gator Trader

Administrator
Sign out

◀ Back to Orders

Seller Profile

Jack Daniels

Description:
Couch is almost new.... something something ....

ASKING: $$$ ACCEPT/DECLINE ORDER

Map of Meetup Spot

Preferred Meetup Spot

3. High level Architecture, Database Organization

DB organization:

Schema: gatortrader

Table Admin:
- adminID (Primary Key)
- email (Unique)
- password

Table Item:
- itemID (Primary Key)
- userID (Foreign key)
- category (Foreign Key, refers to 'type' in table category)
- name
- price
- description
- picture
- meeting location
- dateTime_uploaded
- isApproved

Table User:
- userID (Primary Key)
- email
- password
- username

Table Message
- messageID (Primary Key)
- senderID (Foreign Key, refers to 'userID' of the sender in table User)
- receiverID (Foreign Key, refers to 'userID' of the receiver in table User)
- contents (This includes a date attribute to it)

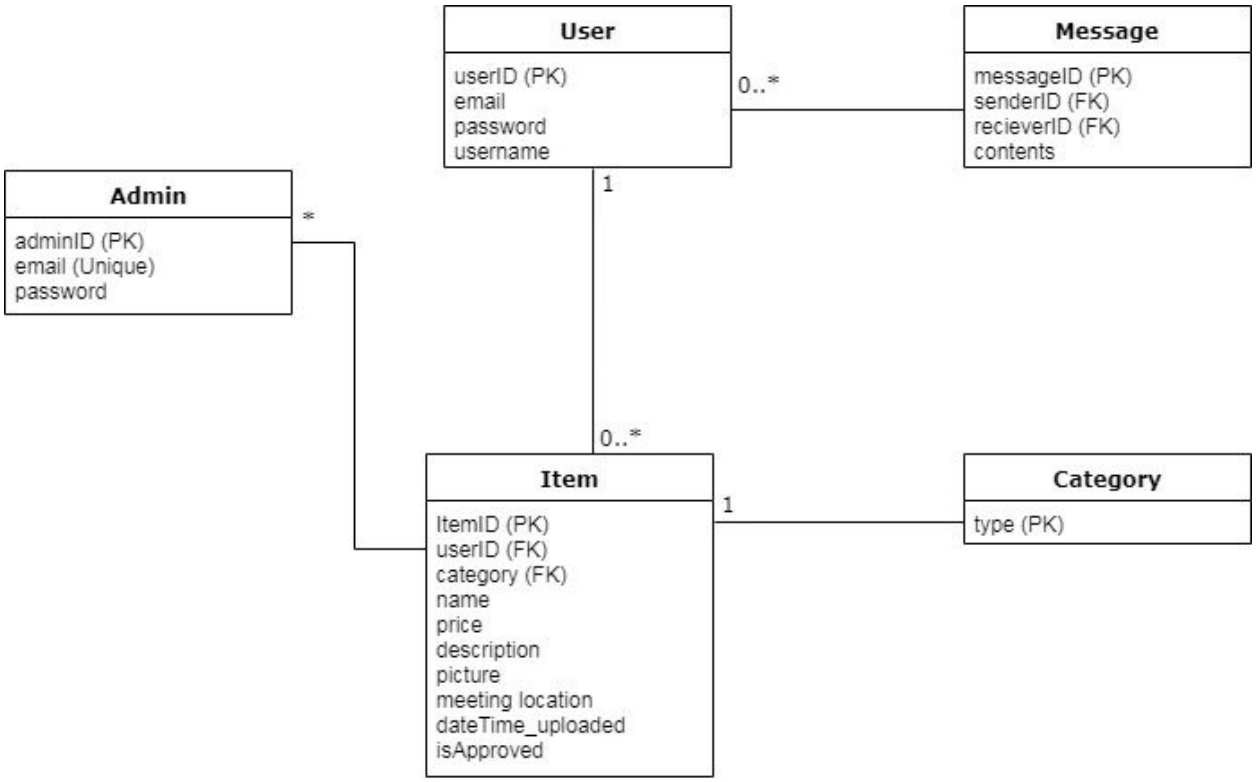
Table Category:
- type (Primary Key)

Media storage:
For this application, images will be stored in file systems. There are no usages of audio and video within the application. Another special data format that may be used is GPS data, if time permits.

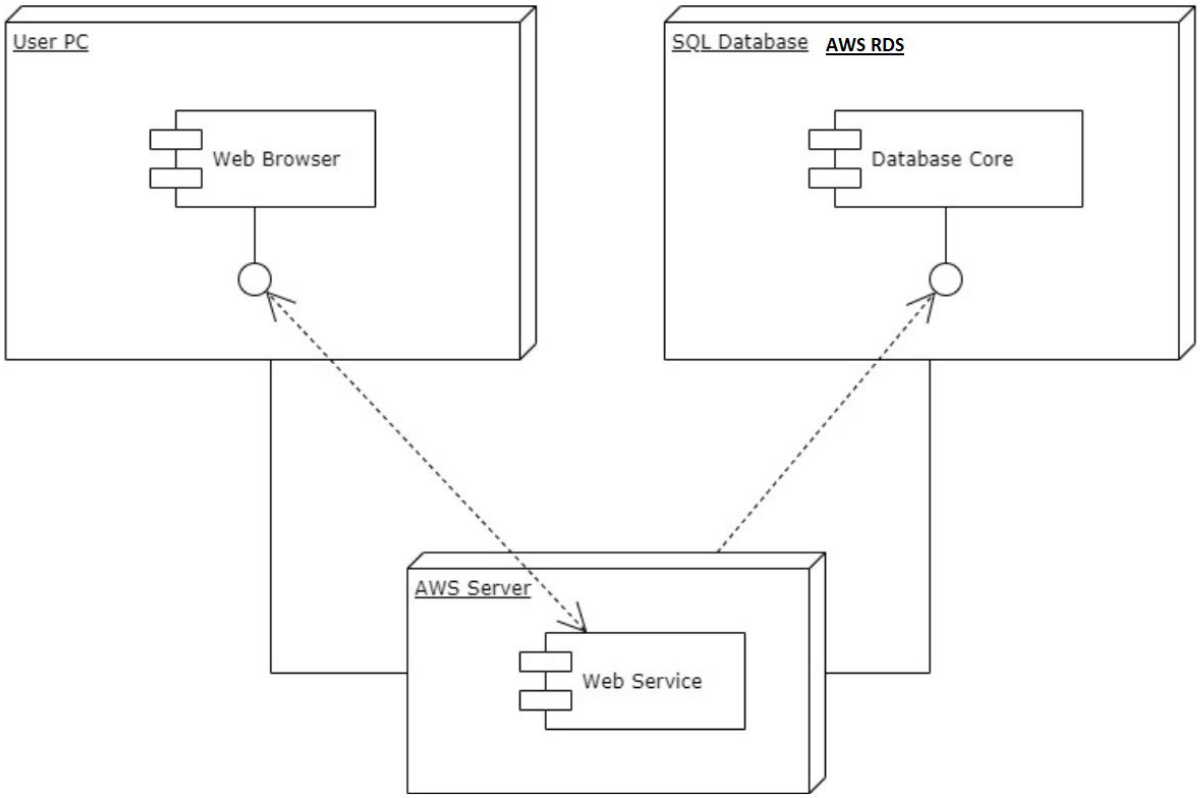
Search/filter architecture and implementation:
The algorithm for search/filter related functions includes using SQL's %like operator for determining appropriate queries on the MySQL database and looping through the needed tables. Search results will be organized in a neat fashion as demonstrated in the mock-ups above and will be limited to a set amount per page. The terms that will most commonly be iterated through are userID (for admin user lookup), itemID (for various post results), type (for category menu pulldowns), and price (for sort by price option).

4. High Level UML Diagrams

a) Class Diagram



b) Deployment Diagram



5 .Key Risks

- Skills risks
    - Learning and applying new technologies
        - This project involves working with some tools and resources that our team is not too familiar with such as mysql and node js. Working with these technological tools without halting deployment process is going to be a challenge.
        - Our approach to handling this risk is going to be proactive and focused learning. Team members that have knowledge of a particular tool will play a key role in bringing the rest of the team up to speed on operational procedures. Also the scope of the project will be kept to a minimum and focus will be kept on priority one requirements.
- Schedule risks
    - Time management
        - As the application starts branching into numerous moving parts of development time management is going to be crucial for successful completion of tasks.
        - To reduce risks related to time management we will rely on efficient project management and assignment of tasks. Good communication and accountability will also play a key role to ease workflows and reduce time wastage.
- Technical risks
    - Branch mergers
        - Our product is a combination of multiple frameworks and layers. Development across multiple stacks will be happen consecutively and thus creates a risk of buggy integration which causes the whole application to crash.
        - Github master will ensure no pushing is done to the master branch of our deployed web application without proper code review and testing.
    - Software Bugs
        - As with every software programming project there is always a risk of bugs to occur. Some bugs may be simple to resolve but others may require extensive debugging and reengineering.
        - To prevent bugs that are hard to trace and fix we will write code using ‘best-practices’ and ensure proper documentation at each step.

6. Project management

Efficient project management will be essential for successful delivery of our product. Project management in regards to our application involves smart division of labor, self accountability, clear concise communication between team members, and a unified vision for the end-product.

Our team relies on both in-person meetings and software tools to create seamless workflows for effective delivery of milestones. Division of labor is either done voluntarily where each member picks a task they would like to perform or by team lead who assigns tasks based on what functions are involved e.g. database setup assigned to backup-end team. Currently the team is using a software called ‘Asana’ which allows tasks along with deadlines to be assigned to individual team members and progress can be tracked through completion boards. ‘Asana’ has proved useful in division of tasks for milestone 2 and we believe it will be a very important organizational tool once the project starts branching out into many different areas of operation.

For everyday communication and check-ins the team is using ‘Slack’ which is a messaging application that is specialized for workflow optimization and usage in a team setting. Through creation of different channels (channels are similar to facebook groups or pages) discussions on various topics are facilitated and the team is kept updated on changes as tasks get completed.

We as a team always strive to bring a hundred percent in our creative process and are committed to delivering a quality product. Our proactive approach to handling tasks, effective conflict management skills, and unsurpassed ethics of teamwork will allow us to successfully steer our application to completion.