

SW Engineering CSC648/848 Fall 2018

Team 9

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Milestone 2

10-16-18

Version 1: 10-16-18

1. Data Definitions v2

1. Non-Registered Users: The users who access our website without getting registered or an administrator. They shall be able to access posts from sellers, view pictures, browse categories, and register for the website. He or she shall not be able to contact the seller for items.
2. Registered Users: The users who have created an account on our website. They shall be able to access the seller dashboard, post listings, respond to buyer messages, buy from other sellers, browse categories, message other sellers, along with the privileges of a non-registered user.
3. Administrator: The user who has access to other registered user's data. He or she shall be able to accept requested listings for approval before they go online. Administrators shall be able to ban a user, delete listings, and edit the terms of service, along with having the privileges of registered and non-registered users.
4. Selling: Registered Users can post an item with or without a picture uploaded and containing the price, condition, contact information, description, subject, and any SFSU classes that use this item. Registered Users shall need a registered account to keep track of selling posts.
5. Buying: Registered Users are able to buy an item as long as contact information is exchanged. Non-Registered Users shall be able to view posts and description without an account, but must register to message the seller and buy from them.
6. Browsing: Non-Registered Users and Registered Users shall be able to browse and search for items they are looking for. They shall be able to use a filter to filter by price from lowest to highest or vice versa. By default, the prices should already line up from lowest to highest.
7. Categories: In addition to Browsing, Non-Registered Users shall be able to click on categories that turns into sub categories. For example, after clicking "furniture", different sub-categories shall appear, such as couches, tables, or chairs.
8. Registering: Non-Registered Users shall have to sign in to post an item for sale. Registering shall require an email and a password. They shall agree to the terms of service, and do the captcha.
9. Terms of Service (TOS): Registered Users shall have to accept the terms of service once for their account before they can begin posting items. Inappropriate items or illegal items shall not go live after being reviewed from the admin.
10. Administering: After a Registered User submits a post for sale, it shall not go live until an Administrator reviews and approves of the post. If the post is rejected, the post shall be saved as a draft for that Registered User to change and resubmit.
11. Messaging: Each item/post shall have a button to send a message to the Registered User (Seller) and start a chain of messages in order by date. Each user shall have a different colored text bubble.
12. Seller Dashboard: The Registered User (Seller) shall have access to the seller dashboard which they can sort, manage, and edit their listings. They can choose to create new listings, delete existing listings, or edit a listing's properties; price, picture, title, condition, etc.

2. Functional Requirements v2

1. Priority - Must have

For users:

1. Selling

- 1.1. Registered users shall be able to list an item with/without a picture uploaded.
- 1.2. Registered users shall be able to list an item's price, condition contact information, description, subject, SFSU class category.

2. Buying

- 2.1. Registered users shall be able to buy an item by contacting the owner.
- 2.2. Registered users shall ask the owner for payment option in person.

3. Browsing

- 3.1. Registered users shall be able to view listings for sale.
- 3.2. Registered users shall be able to sort listings by price or date uploaded.

4. Categories

- 4.1. Registered users shall be able to browse listings by category.
- 4.2. Example categories include Math, Science, Business, etc.
- 4.3. Each category will have sub-categories.

8. Messaging

- 8.1. Registered users shall be able to send a message to the owner of a listing.
- 8.2. The message window shall be ordered messages from earliest date.

9. Seller Dashboard

- 9.1. Registered users shall be able to sort, manage, edit listings.
- 9.2. Registered users shall be able to create/delete/change listings.

For non-users:

2. Buying

- 2.1. Non-Registered users shall be able to buy an item by contacting the owner
- 2.2. Non-Registered users shall ask the owner for payment option in person.

3. Browsing

- 3.1. Non-Registered users shall be able to view listings for sale.
- 3.2. Non-Registered users shall be able to sort listings by price or date uploaded.

4. Categories

- 4.1. Non-Registered users shall be able to browse listings by category.
- 4.2. Example categories include Math, Science, Business, etc.
- 4.3. Each category will have sub-categories.

5. Registering

- 5.1. Non-Registered users shall have to sign in to post an item for sale.

5.2. Registering will require an email and a password.

8. Messaging

8.1. Each listing shall have a button to send a message to the registered user.

8.2 This shall start a chain of messages ordered by earliest date.

8.3 The buyer and seller shall both have different chat color boxes.

For admins:

7. Administering

7.1. When a Registered User submits a listing for sale, it will not go live until an admin approves the listing

7.2. This is done through the admin's Admin dashboard.

7.3 Admin can leave reasons for rejection.

2. Priority - Desired

For users:

6. Terms of Service (TOS)

6.1. Upon registering, users will have to accept the TOS before the account is successfully created.

6.2 If the TOS isn't accepted, then the user will be brought back to the home page.

6.3 The TOS will include; not posting inappropriate pictures, spamming, and messages to a Registered User (seller).

For non-users:

10. Searching

10.1. Searching shall be available to search for any input for any category.

10.2. Searching can also be filtered to search within a category.

10.3. Searching can also be filtered to search by course number.

For admins:

3. Browsing

3.1. Admin shall have the choice to browse listings to find anything inappropriate that was unfiltered.

3.2. Admin shall be able to edit any posts

11. Admin Dashboard

11.1. Admin shall be able to view listing requests

11.2. Admin shall be able to reject or accept requests

11.2a. Admin can leave a message to seller before rejecting.

11.3. Admin shall be able to edit post requests.

3. Priority - Opportunistic

For users:

For non-users:

For admins:

8. Messaging

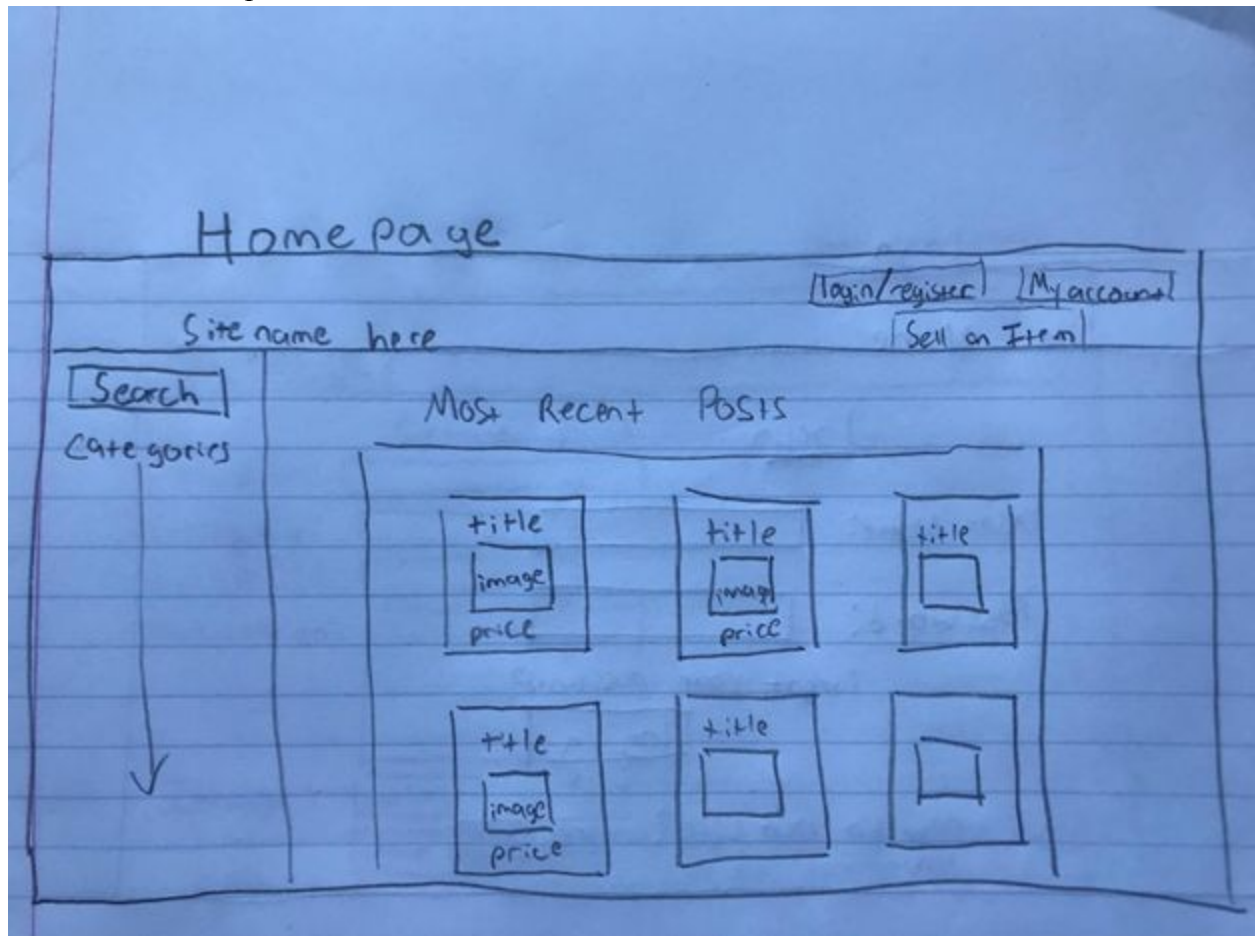
8.1. Admins shall be able to message Non-Registered and Registered users.

3. UI Mockups and Story Board

Case 1: Unregistered User Browsing

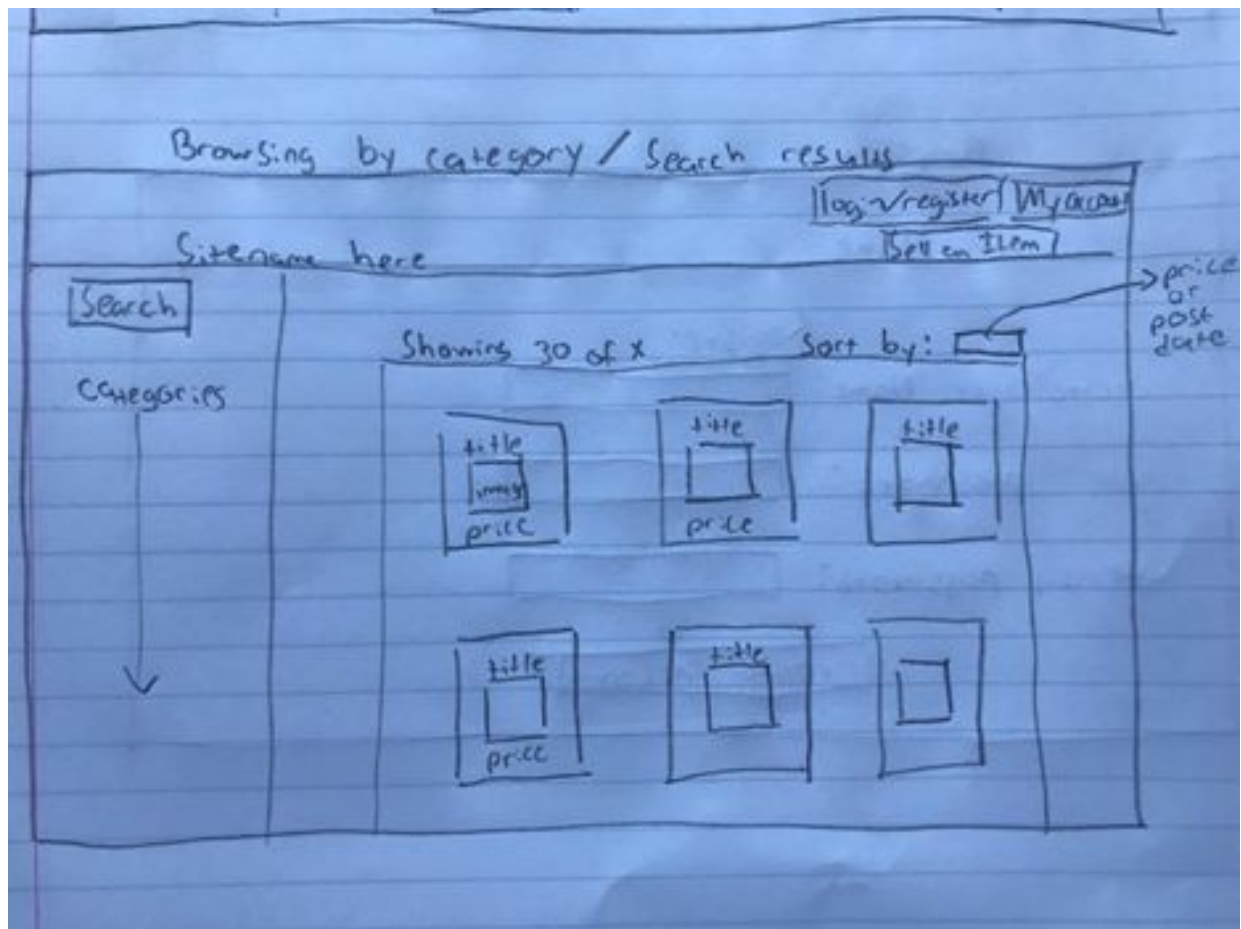
An unregistered user has heard of our website and decides to use it to purchase a textbook. Upon visiting our website, they are first brought to the home page.

The Home page will display the most recent posts on the center of the page and categories to browse posts on the left side of the page. Each displayed post will display the title of the post, an image of the post, and the price of the post. On the top right of the page will be links to login, to the dashboard, and to create a post. Above the posts will be a text field for users to search for posts.



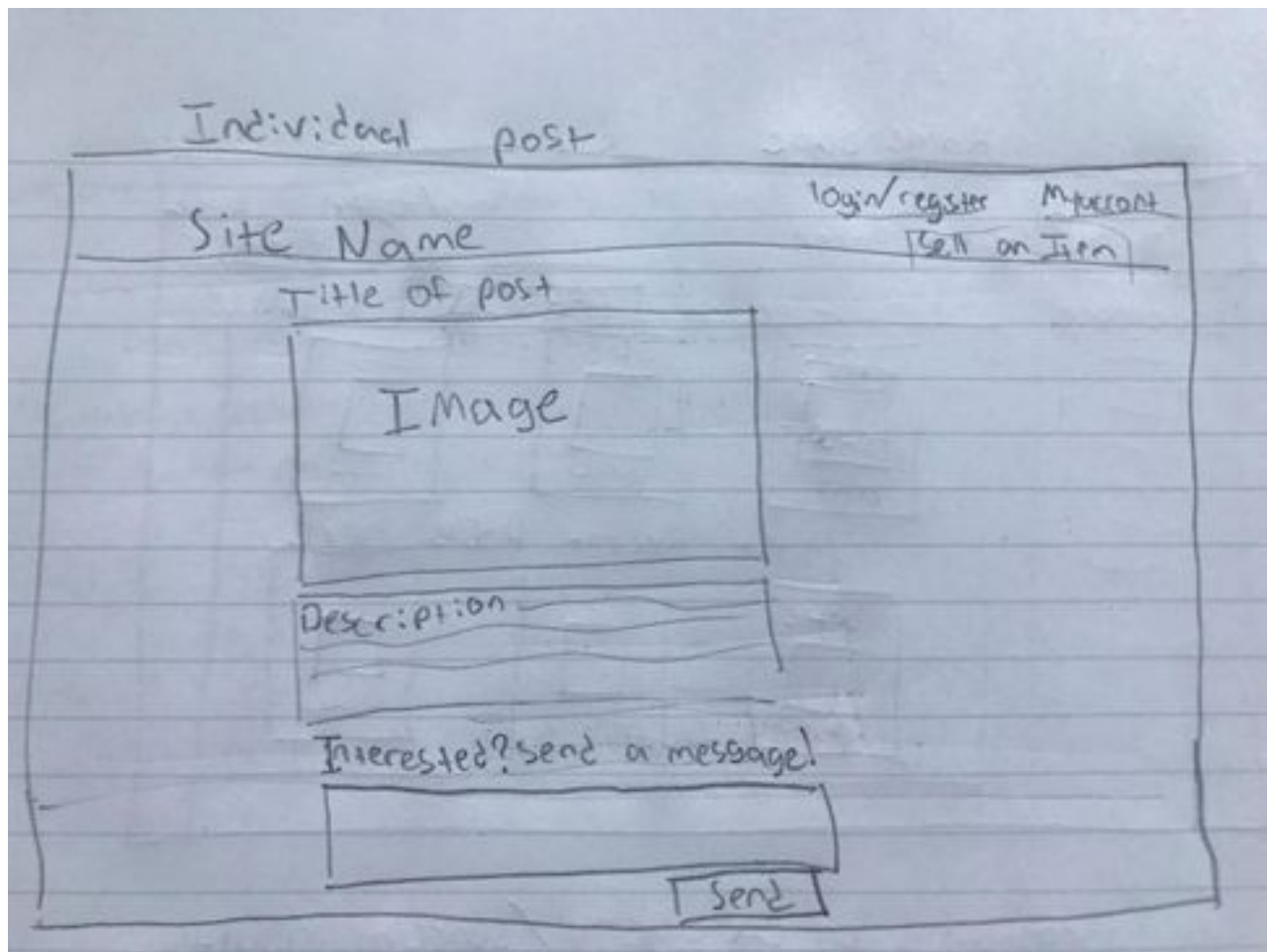
The unregistered user then clicks on the textbook category on the left side of the page to filter for textbooks.

When Filtering by search or category, the display will be similar to the homepage, with the addition to sort by price or post date. Additionally, if browsing by category, if a specific category has subcategories, the subcategories will be indented and displayed below the main category.



The unregistered user then sees a post about a textbook they need and clicks on it, and they are brought to the individual post's page.

Individual posts will display The title of the post, then images of the post, followed by the price and description. Then there will be a textbox for interested users to send a message to the post's seller.



The unregistered user then writes out a message to the post's owner, and when they hit send, they are brought to the login/register page. They create a new account and their message is sent.

The login page will contain two text fields for username and password information, with a forgot password link and a login button. It will also have a link for unregistered users to create an account, which will have a field for unregistered users to create their username and password.

A hand-drawn sketch of a login page layout on lined paper. The page is titled "login" at the top center. Below the title is a horizontal line labeled "Site Name" on the left. Further down, the word "login" is written again. Below this, there are two text input fields: the first is labeled "User Name:" and the second is labeled "Password:". Below the password field is a link that says "forgot your password?". Below that is a button labeled "login". At the bottom, there is a link that says "new to our site?" followed by a button labeled "register".

A hand-drawn sketch of a register page layout on lined paper. The page is titled "Register" at the top center. Below the title is a horizontal line labeled "Site Name" on the left. Further down, the word "Register" is written again. Below this, there are three text input fields: the first is labeled "desired user Name:", the second is labeled "password:", and the third is labeled "verify password:". Below the third field is a button labeled "Create account".

Case 2: Unregistered User Making a Post

An unregistered user wants to make a post on the site. Upon visiting the homepage, and click on the create post link in the upper right corner. The unregistered user is brought to the post creation page and begins to fill out the information about their post.

The create post page will have a text field for the title of the post, and a drop down bar to select a category. The create post will also have another text field for the price of the post, a text box for the description of the post, and a link to upload images for the post.

After the unregistered user hits the create post button, they are brought into the login/register page, where they must create a new account. Once they create an account, their post is created and pending approval from an administrator.

The sketch shows a form titled "Create post" at the top. Below the title is a horizontal line labeled "Site Name". The main form area contains the following elements:

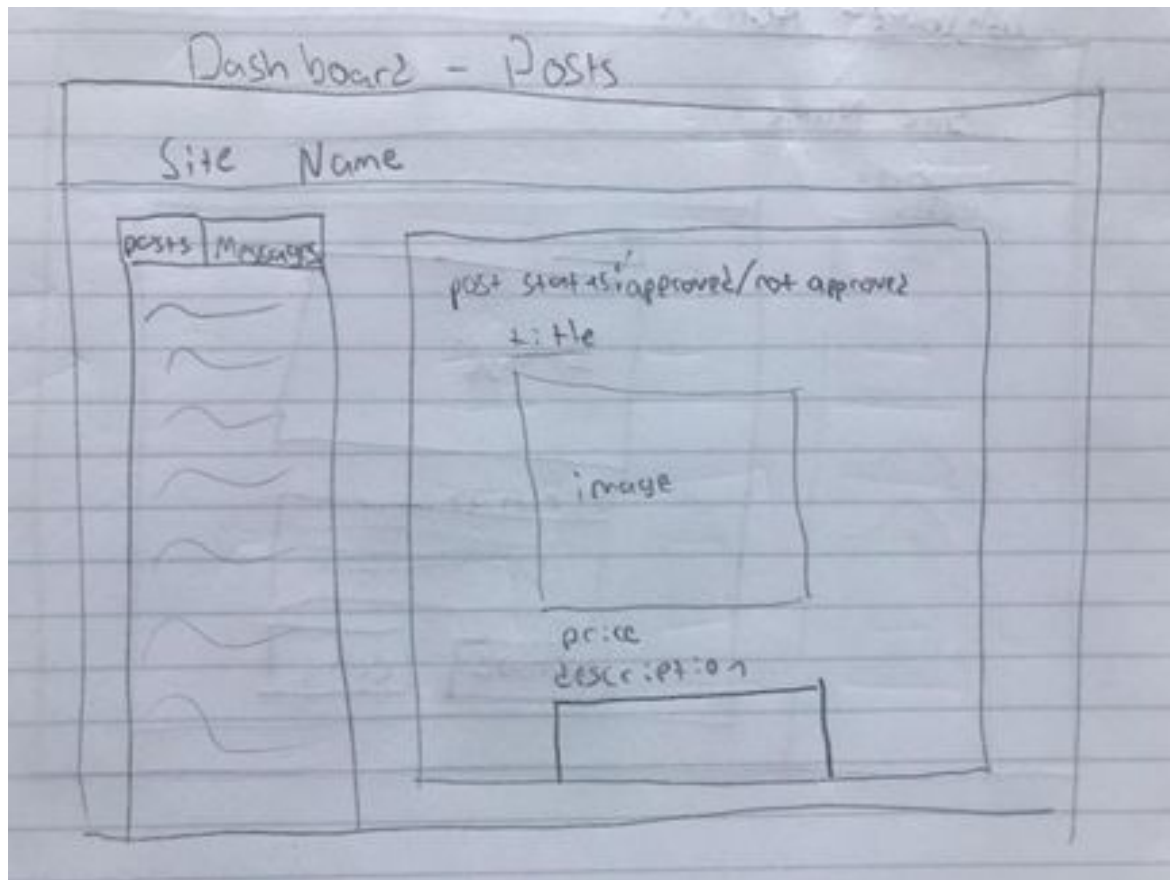
- Title :** A text input field.
- Category:** A dropdown menu, indicated by an arrow pointing to it with the label "drop down bar".
- price :** A text input field.
- description:** A larger text input area.
- Image:** A button labeled "upload".
- create post:** A button at the bottom of the form.

To the right of the "create post" button, there is a note: "*Note: posts take up to 24 hours to be approved!"

Case 3: Registered User Using the Dashboard

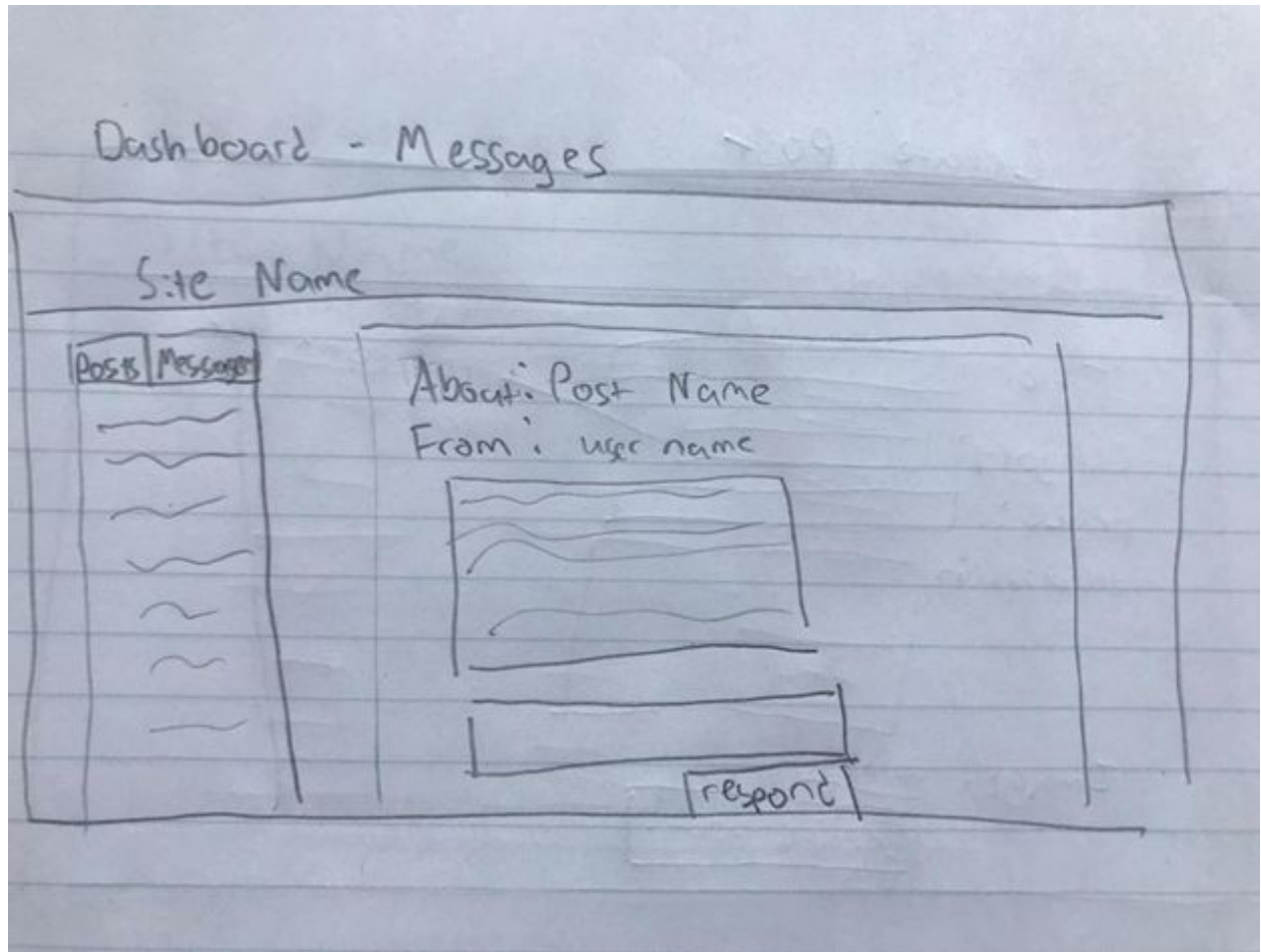
A registered visitor wants to view the approval status of a recent post they have made. They visit the website's homepage and click on the My Account link in the upper right corner. After logging in, they are brought to their dashboard where they can see the status of their posts.

The dashboard will display the post in the center of the screen similar to how a post is seen when browsing, but with the addition of the approval status of the post at the top. On the left, the registered user's posts are listed, so they can click on them to view the individual status of each post.



After viewing the status of their posts, the registered user wants to see if he or she has any messages about their posts. They click on the messages tab and read any new messages they have.

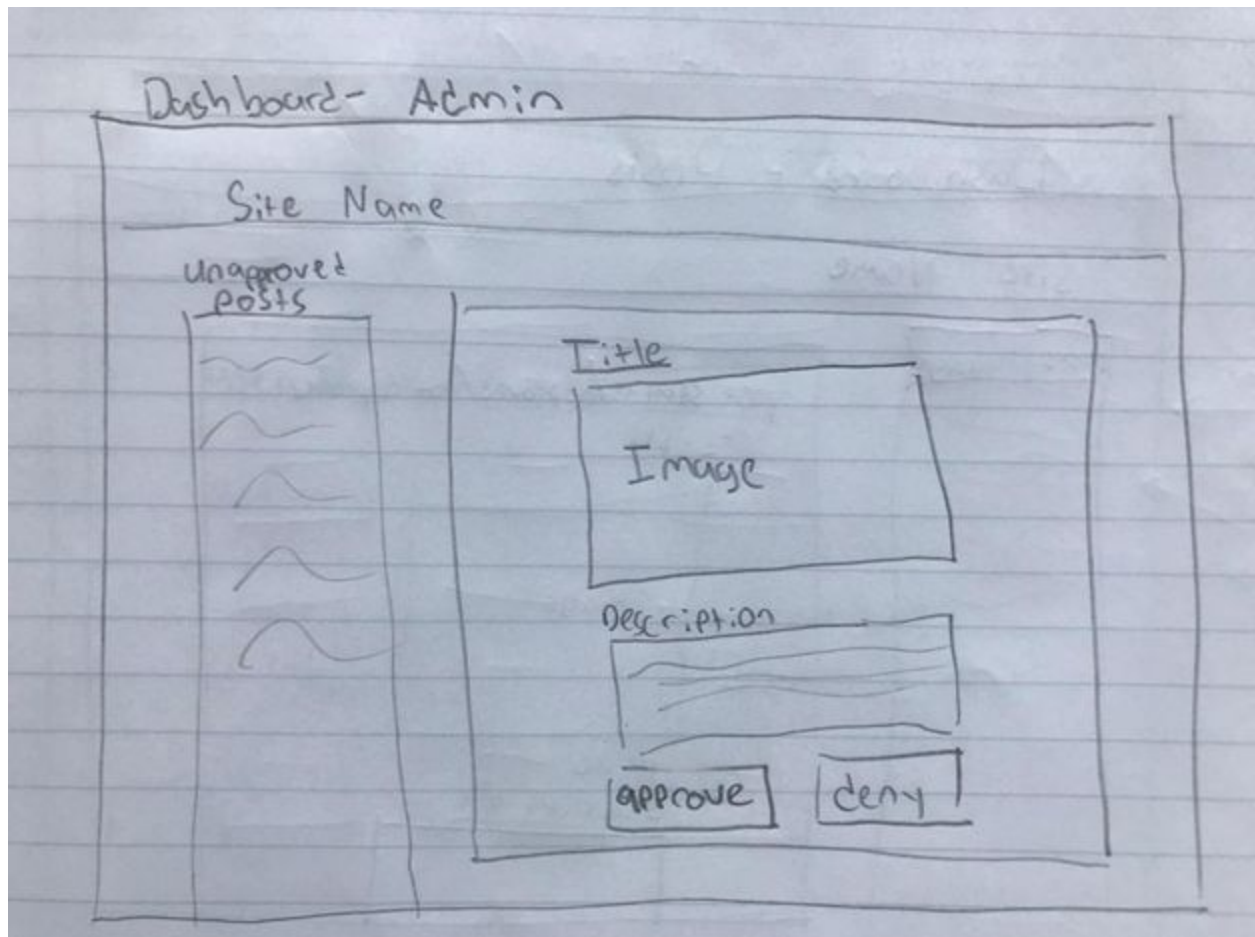
The messages dashboard will display messages on the left similar to the posts dashboard. On the center of the screen, the message will display the name of the specific post the message is about, and the text body of the message. Below that will be an empty text field for the registered user to write a response to the message sender.



Case 4: Administrator Approving/Denying Posts

An administrator logs onto the website to approve or deny posts. They log onto the administrator dashboard to sift through new posts, and approve appropriate posts and deny inappropriate posts.

The administrator dashboard will look similar to the registered user's dashboards. It will have new approval pending posts on the left of the screen and the post's content on the middle of the screen in the normal post format. Below the post will be an approve or deny button for the administrator to approve or deny posts.



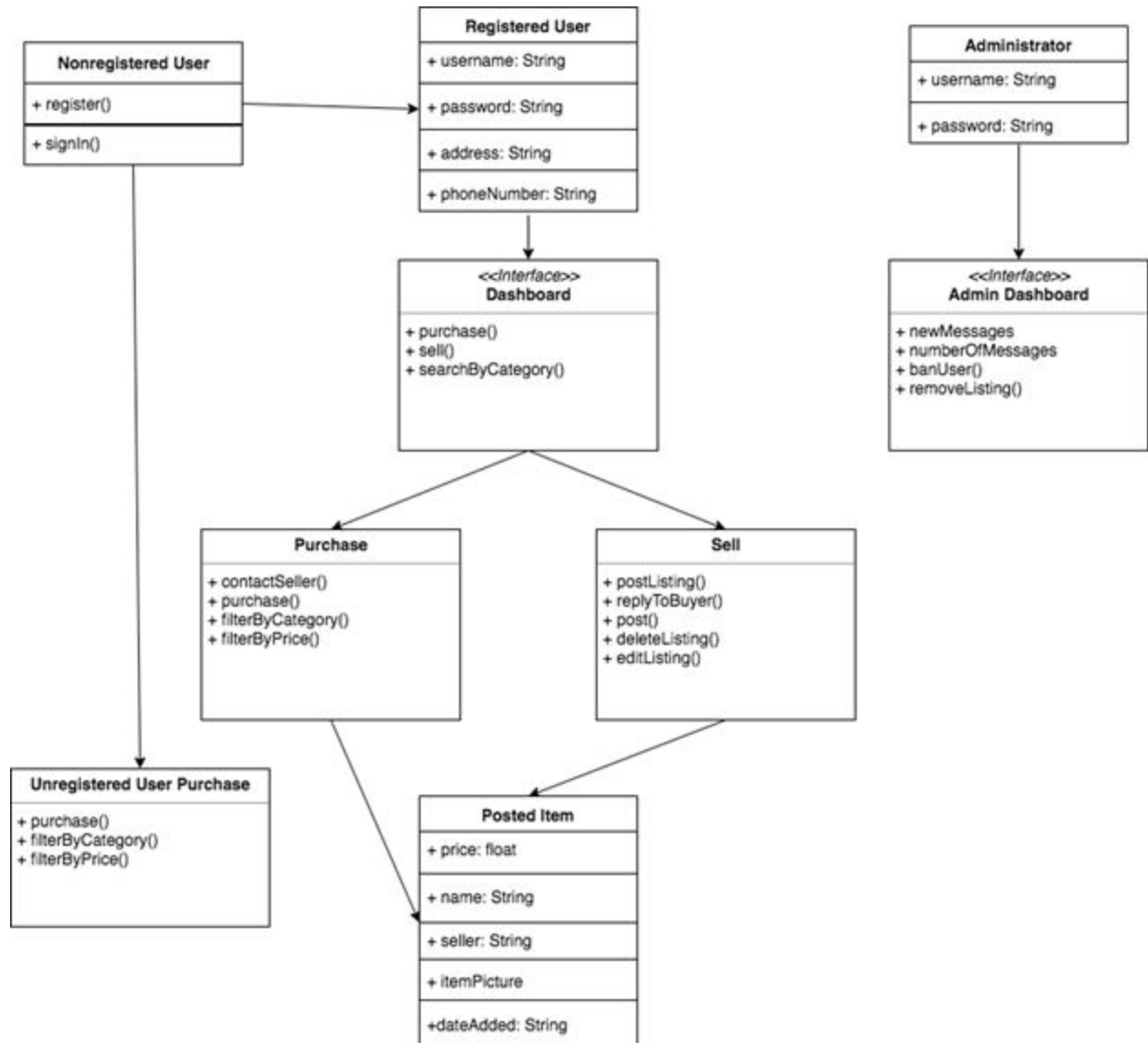
4. High Level Architecture, Database Organization

Database Organization: We will have multiple schemas in our database, which will be used to contain specific objects in our application. One schema will contain the information of registered users, which will be contained in an Accounts table. We will have another schema, named Categories, to contain the different categories that we will have on our website, which are: Books, Electronics, Furniture, etc. In those tables, we will hold the information of the items that users are going to posts, such as the pictures, price, item name, etc.

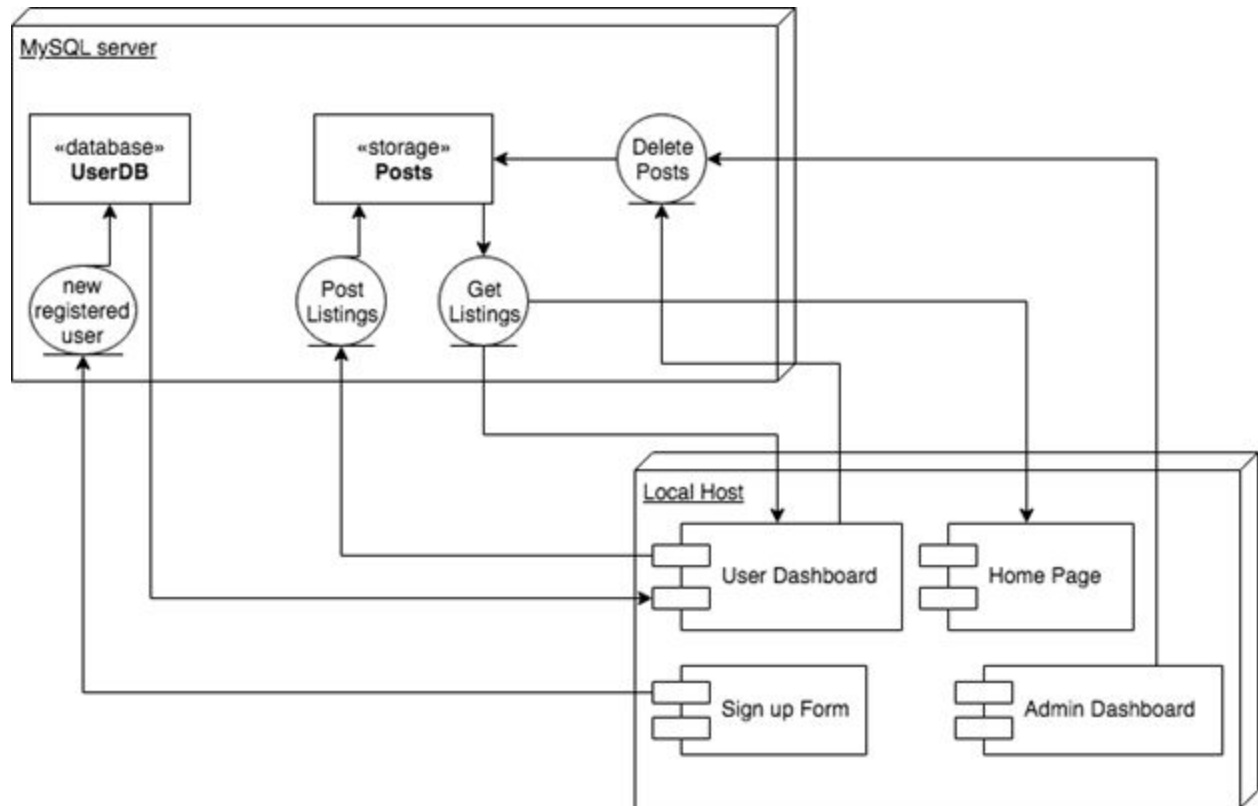
Images will mainly be kept of file systems because we will only need to store static items such as photos and user input.

We will organize search items by the different categories, then we will user %like to find the result that is closest to the user's input. We will also implement a sorting feature, which will sort items by price or alphabetically.

5. High Level UML Class Diagrams



Deployment Diagram



6. Key Risks

Our Project Faces Two Key Risks:

1 - Our group has little experience with using python, and the bulk of our project needs to be written in python. Our group has been using tutorials to learn and practice using python so that we will be prepared for our project.

2 - Our team has a small time window where we can all meet at once. As such, it is unlikely that we will be able to work as an entire team to work on our project, and we will instead need to work on individual pieces and divide our meeting times so that the front end and back end teams will be able to work with their respective team members.