SW Engineering
CSC648/848 Spring 2020
Gator Trade

By:
Team 03
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Milestone 2

March 20, 2020	Milestone Version 1
March 24, 2020	Finalized Version

Table of Contents

1. Functional Requirements

Priority 1:

Unregistered User:

1.1 - Shall be able to browse media being posted or sold.

1.2 - Shall be able to browse for media.

1.3 - Shall be able to register.

1.4 - Shall be able to filter media by SFSU specific classes.

1.5 - Shall be able to search for media.

Registered User:

2.1 - Shall inherit everything an unregistered user can do.

2.3 - Shall be able to download free digital media.

2.4 - Shall be able to message another user for their contact info.

2.6 - Shall be able to accept a meetup location.

2.7 - Shall have a dashboard to view his/her postings and messages.

2.8 - Shall be able to upload digital media to the website.

2.12 - Shall be able to login.

2.13 - Shall have a dashboard to view the list of media they posted and messages.

Administrator:

3.1 - Shall inherit everything a Registered User can do.

3.2 - Shall be required to moderate(approve) all media posted on the site before they go live.

3.3 - Shall be able to delete any post on the site.

3.4 - Shall be able to ban users from the site.

Priority 2:

Unregistered User:

N/A

Registered User:

2.5 - Shall be able to ping for a meetup location.

2.9 - Shall be able to delete their digital media from the website.

Administrator:

3.5 - Shall have a login protected admin-panel to facilitate

Priority 3:

Unregistered User:

N/A

Registered User:

2.10 - Shall have a profile page showing their current listings.

2.11 - Shall be able to view purchased items.

Admin:

N/A

2. List of Main Data Items and Entries

Unregistered User:

- User who does not have an account on the website.
- They can register for an account.
- They are able to browse the website, search, and view any of the media being posted or sold.

Registered User:

- They have the same privileges of an unregistered user.
- User who has created an account on the website.
- They are able to purchase media and download free media
- They can create posts for free media or purchasable media.
- They can contact the seller.

Admin:

- User with full admin privileges.
- Admins must approve all posted content before it goes live on the website.
- Privileges include the ability to ban users and remove posts if it violates any rules.

Post:

- Post is an item media with the following information:
    - Owner ID such as username/email
    - Price if the item is not free
    - Download link if item is free
    - Category
    - Media Type (Video, photo, book, etc.)
    - Description (background information about the media)
- Pictures shall be low res.
- Download will be available if the media is free.

User Registration Record:

- Contains the following information of a registered user:
    - Email address
    - Password (Encrypted)
    - First Name
    - Middle Name (Optional)
    - Last Name
    - Student or Faculty

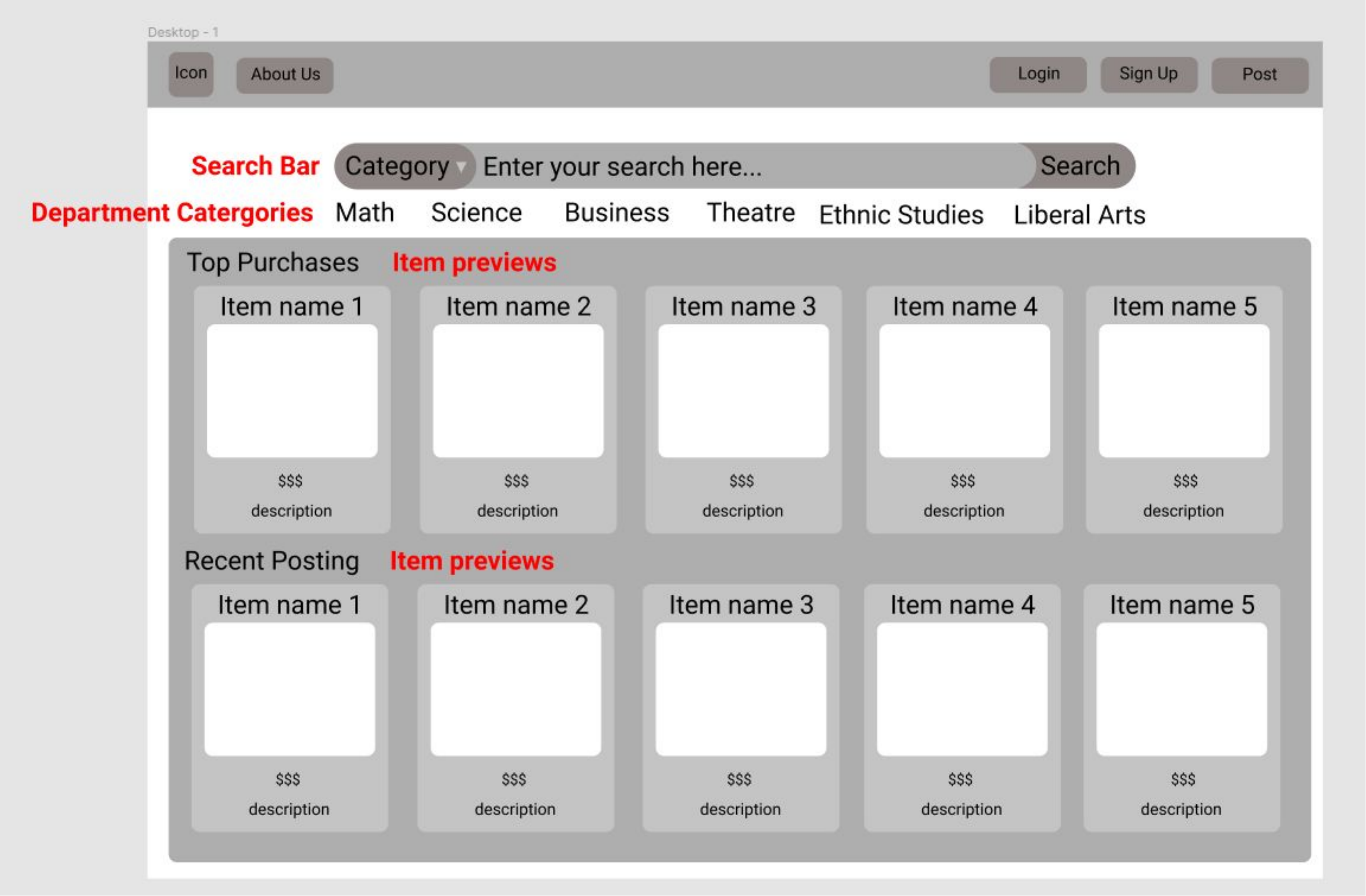
Message:

- Can be used by registered users.
- Contains text that a registered user can create to send to a seller.
- Contains the time the message is sent and the sender’s information such as their name.
- Sellers can send messages back to a registered user that contacted them.

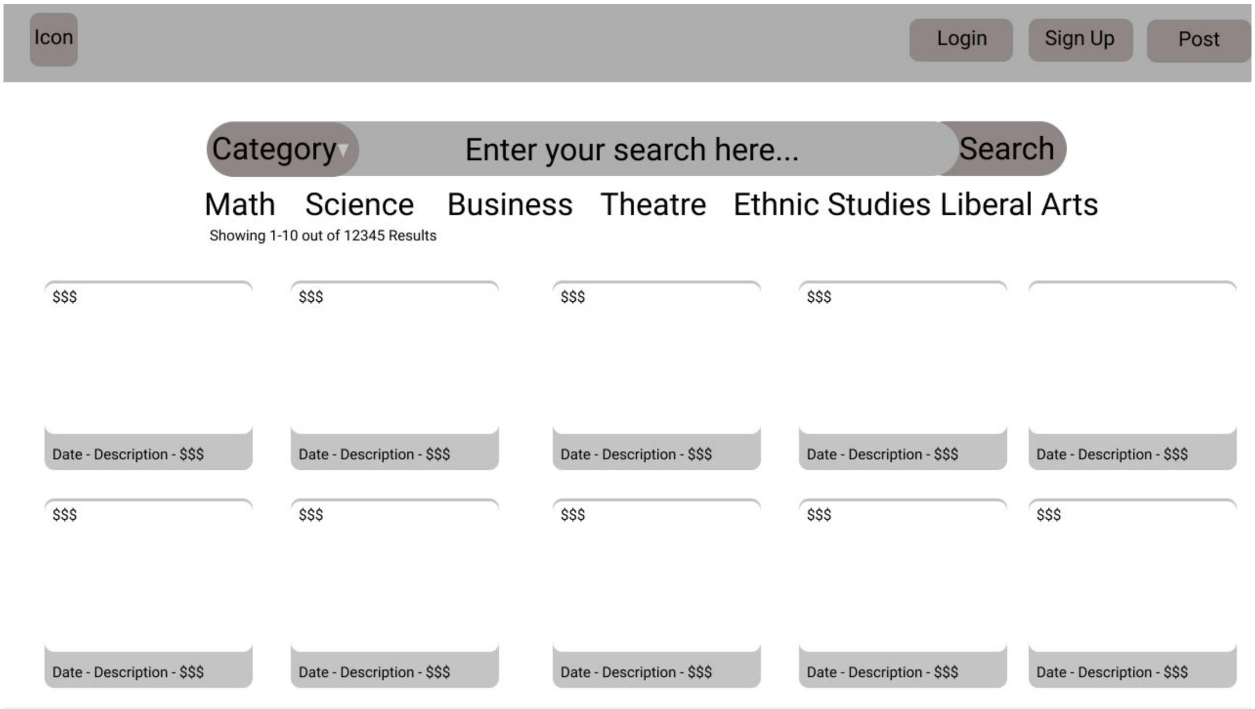
3. User Interface Mockups and Storyboards

Pages we need to make on FIGMA:

- **Home Page**
  - A search bar
  - Items, like a catalogue
  - Somewhere in the corner is register or login
  - Can browse

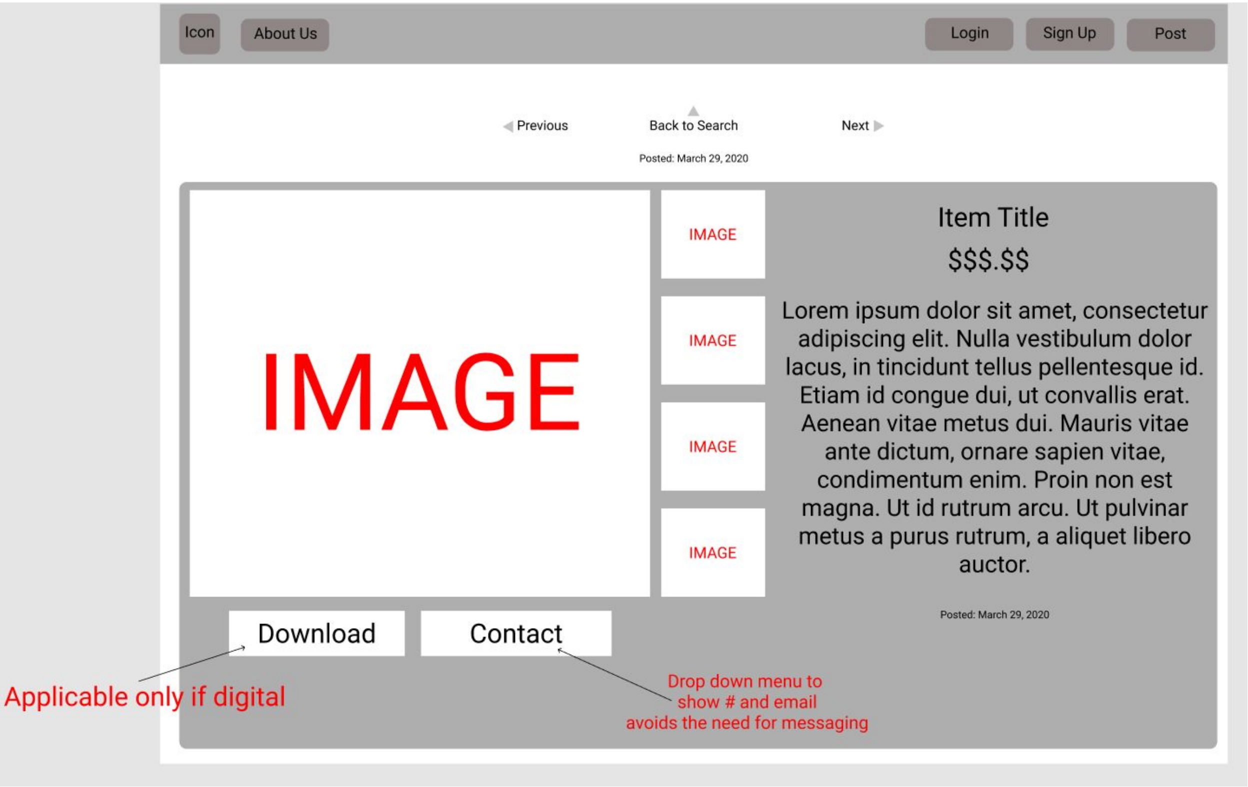


- **Search Results Page**
    - Main purpose is to browse



Showing 1-10 out of 12345 Results

- Item Detail Page



Posted: March 29, 2020

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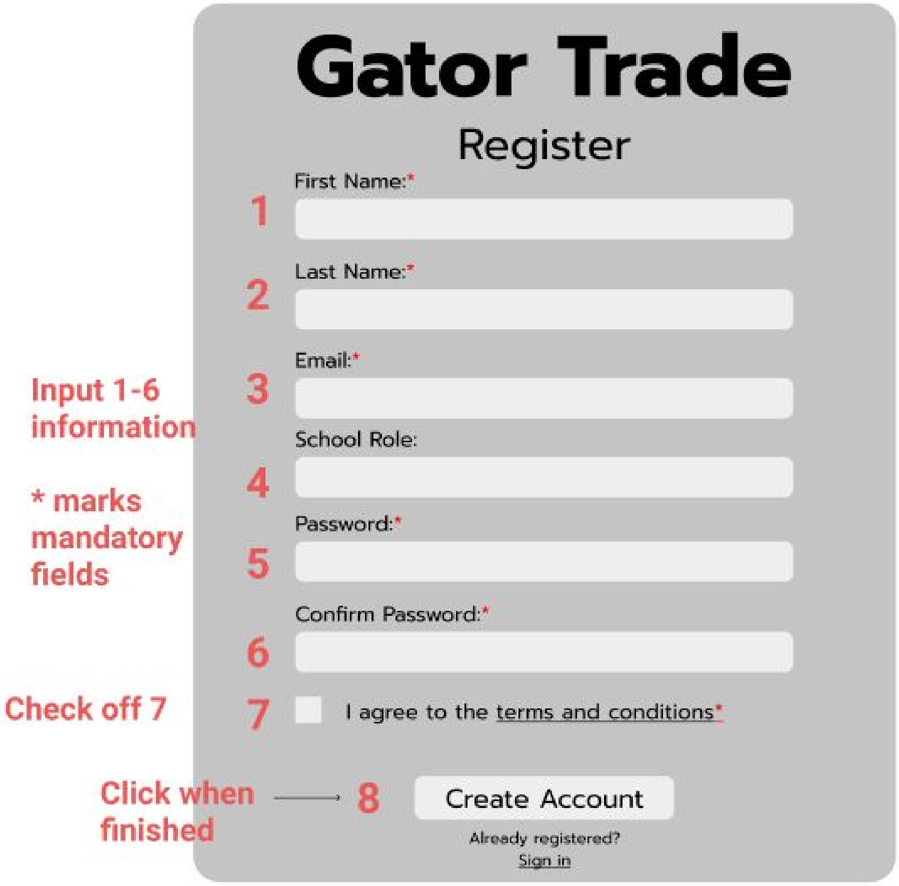
Posted: March 29, 2020

Applicable only if digital

Drop down menu to show # and email avoids the need for messaging

- **Register Page**



Gator Trade

Register

First Name:*

Last Name:*

Email:*

School Role:

Password:*

Confirm Password:*

□ I agree to the terms and conditions*

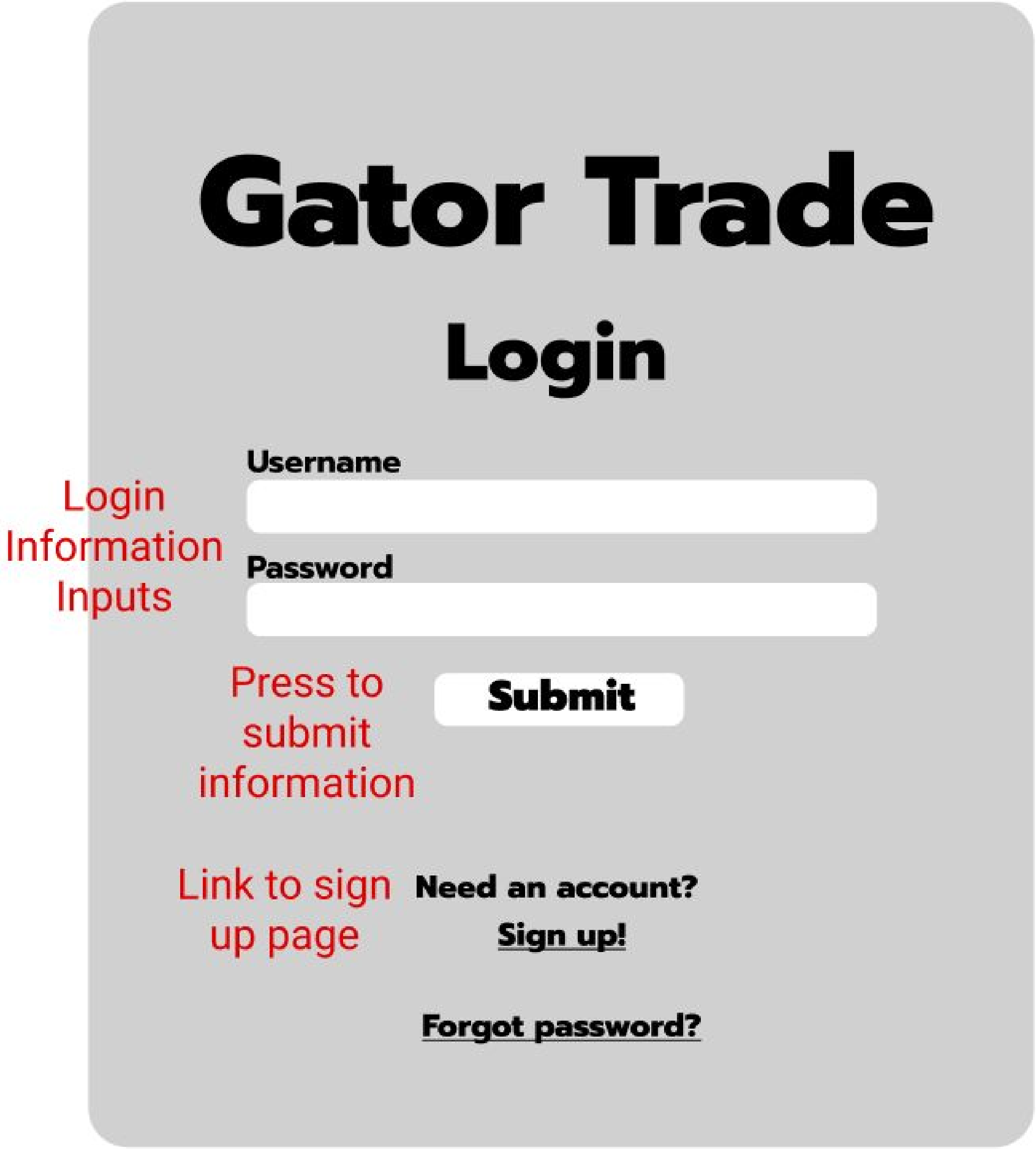
Input 1-6 information

* marks mandatory fields

Check off 7

Click when finished

- **Login Page**

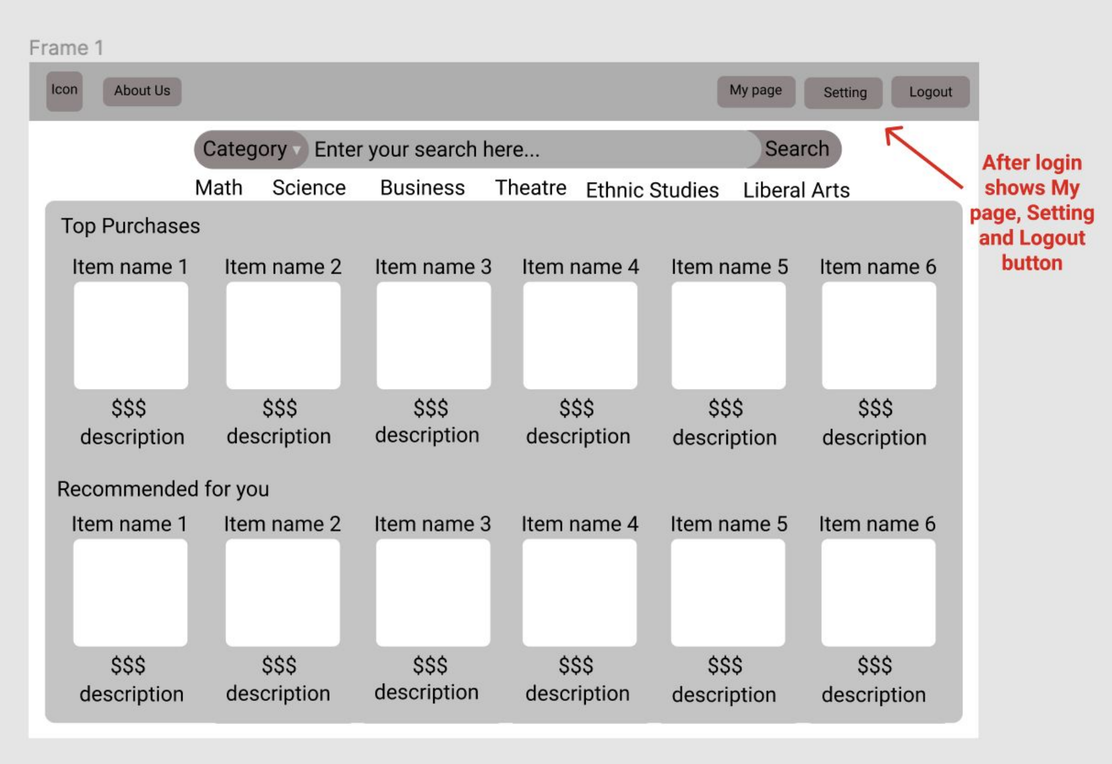


Login Information Inputs

Press to submit information

Link to sign up page

- **Account Page:**



Top Purchases

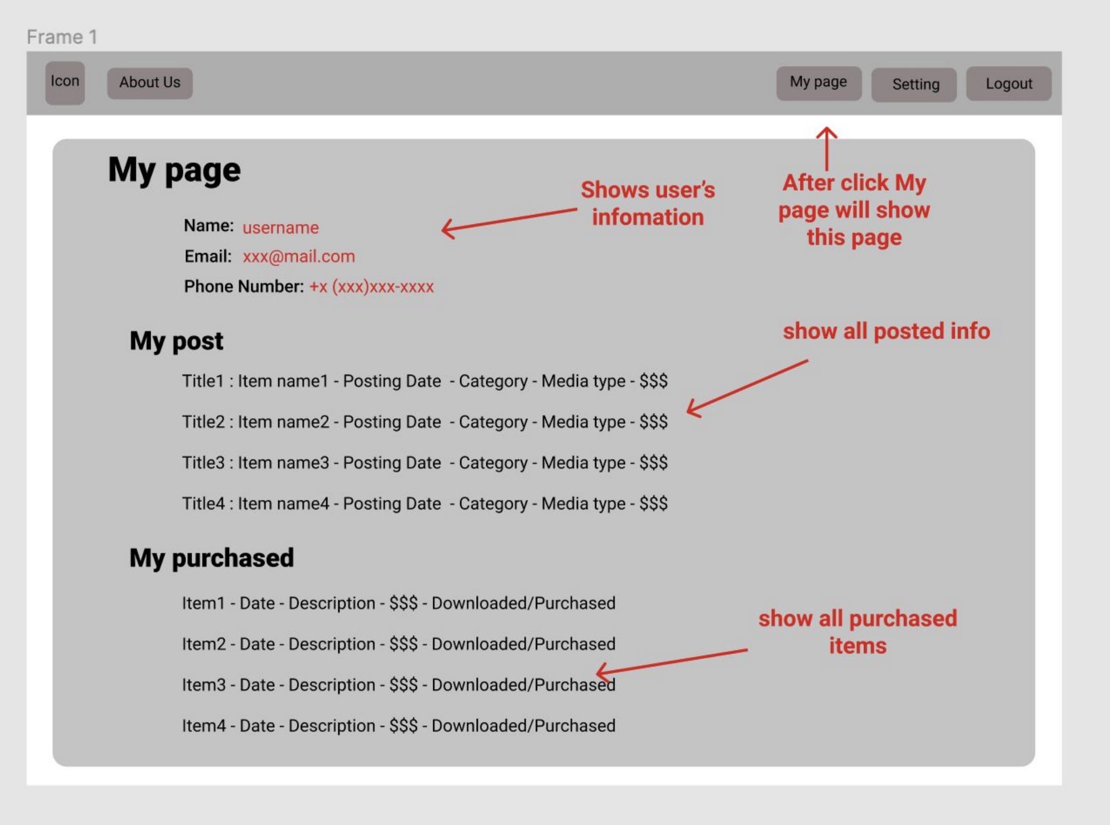
Item name 1	Item name 2	Item name 3	Item name 4	Item name 5	Item name 6
$$$	$$$	$$$	$$$	$$$	$$$
description	description	description	description	description	description

Recommended for you

Item name 1	Item name 2	Item name 3	Item name 4	Item name 5	Item name 6
$$$	$$$	$$$	$$$	$$$	$$$
description	description	description	description	description	description

After login shows My page, Setting and Logout button

Show's account info that shows posting and downloads



My page

Name: username

Email: xxx@mail.com

Phone Number: +x (xxx)xxx-xxxx

Shows user's infomation

After click My page will show this page

My post

Title1 : Item name1 - Posting Date - Category - Media type - $$$

Title2 : Item name2 - Posting Date - Category - Media type - $$$

Title3 : Item name3 - Posting Date - Category - Media type - $$$

Title4 : Item name4 - Posting Date - Category - Media type - $$$

show all posted info

My purchased

Item1 - Date - Description - $$$ - Downloaded/Purchased

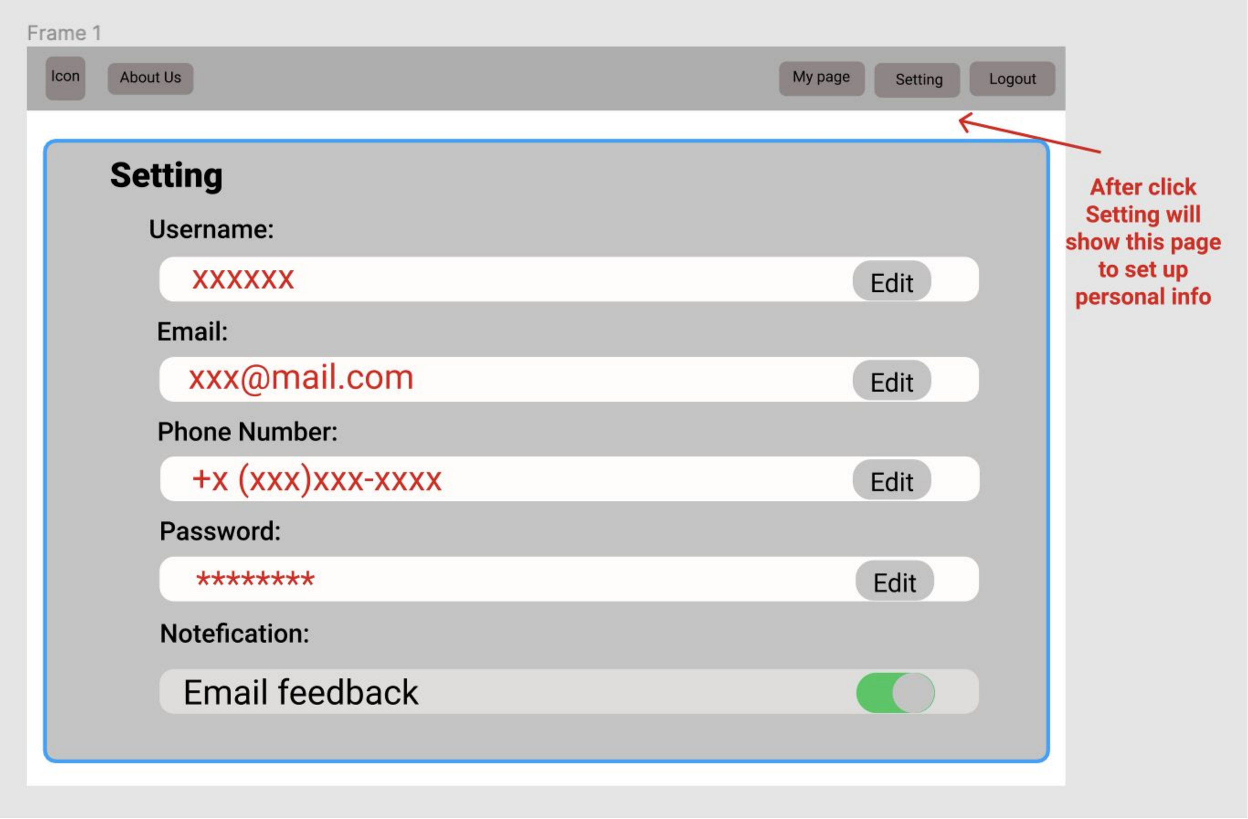
Item2 - Date - Description - $$$ - Downloaded/Purchased

Item3 - Date - Description - $$$ - Downloaded/Purchased

Item4 - Date - Description - $$$ - Downloaded/Purchased

show all purchased items

- **Priority 3: Settings Page**



Setting

Username: xxxxxx

Email: xxx@mail.com

Phone Number: +x (xxx)xxx-xxxx

Password: ********

Notefication:

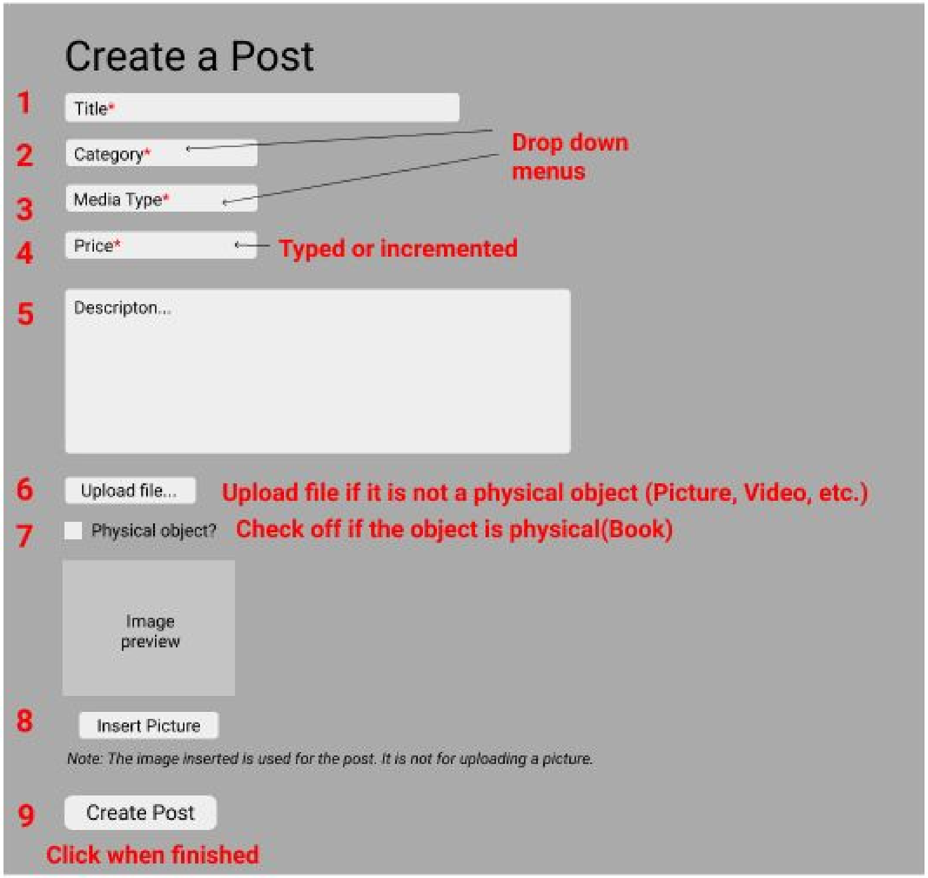
Email feedback

After click Setting will show this page to set up personal info

- **Create a Posting Page**

Input all information (1-4) required

5-8 are optional



Drop down menus

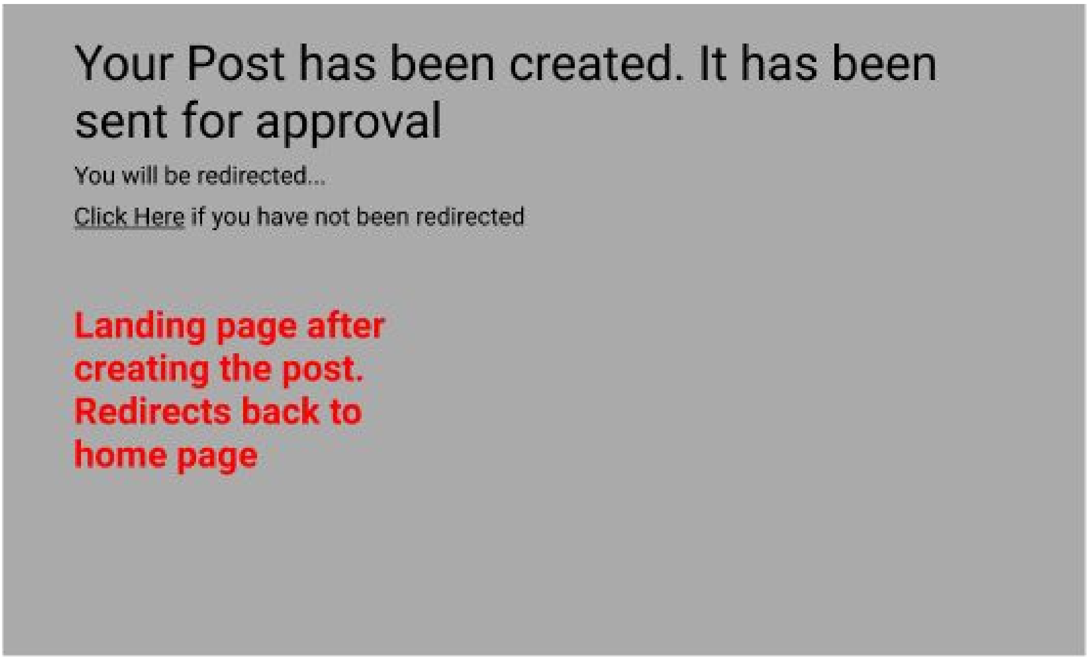
Typed or incremented

Upload file if it is not a physical object (Picture, Video, etc.)

Check off if the object is physical(Book)

Note: The image inserted is used for the post. It is not for uploading a picture.

Click when finished



Your Post has been created. It has been sent for approval

You will be redirected...

Click Here if you have not been redirected

Landing page after creating the post. Redirects back to home page

4. High Level Architecture, Database Organization

DB Organization:

User table: Contains information of registered users as well as administrators.

Column	**Type**	**Default**
ID	ObjectId	
First Name	String	
Last Name	String	
Email Address	String	
School Role	String (either “student” or “faculty”)	Student
Admin	Boolean(T is Admin, F, not admin)	False
Password	String	
Phone Number	String	“”

Post Table: Contains information of posts

Column	**Type**	
ID	ObjectId	
Author ID	ObjectId (foreign key by User)	
Title	String	
Media Preview	BLOB	None
Media Path	String (filepath)	
Media Type	String	
Physical	Boolean	
Cost	Float	Dollar amount. 0.00

Approver ID	ObjectId (foreign key by User)	
Description	Text	“”
Status (approved or not yet approved)	Boolean	False

Purchases Table: contain logs of individual’s access to post’s media

Column	**Type**	
user_email	String(foreign key by Users)	
post ID	ObjectId (foreign key by Posts)	

Post Category Table: contains individual post’s categorizations

Column	**Type**	
post ID	ObjectId (foreign key by Posts)	
category	String	

Media Storage:

- Keep maintenance simple by using DB BLOBs.

Search/filter architecture and implementation:

- Use SQL to perform search queries.
- Do simple search for browse by classes and free text (title) search (typeahead).
- Search items can be ordered alphabetically or by date.

APIs: APIs will follow REST patterns

Users API:

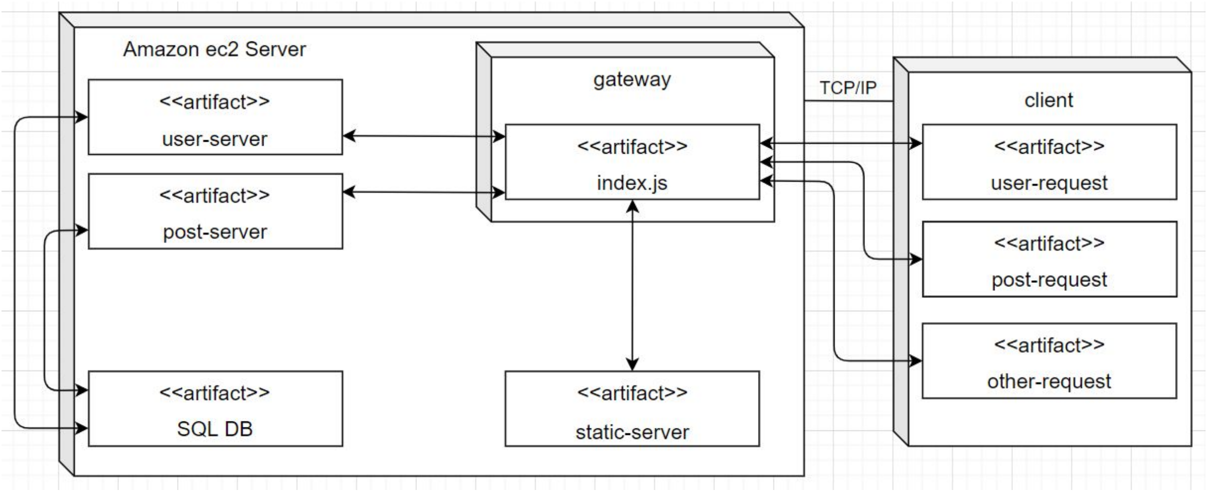
- GET /user : Get user information
- GET /user/posts : Get user’s authored posts
- GET /user/posts/purchased : Returns an array of user’s purchased posts.
-
- POST /user : Create new user
    - Body: {Firstname, LastName, email, password, school role}

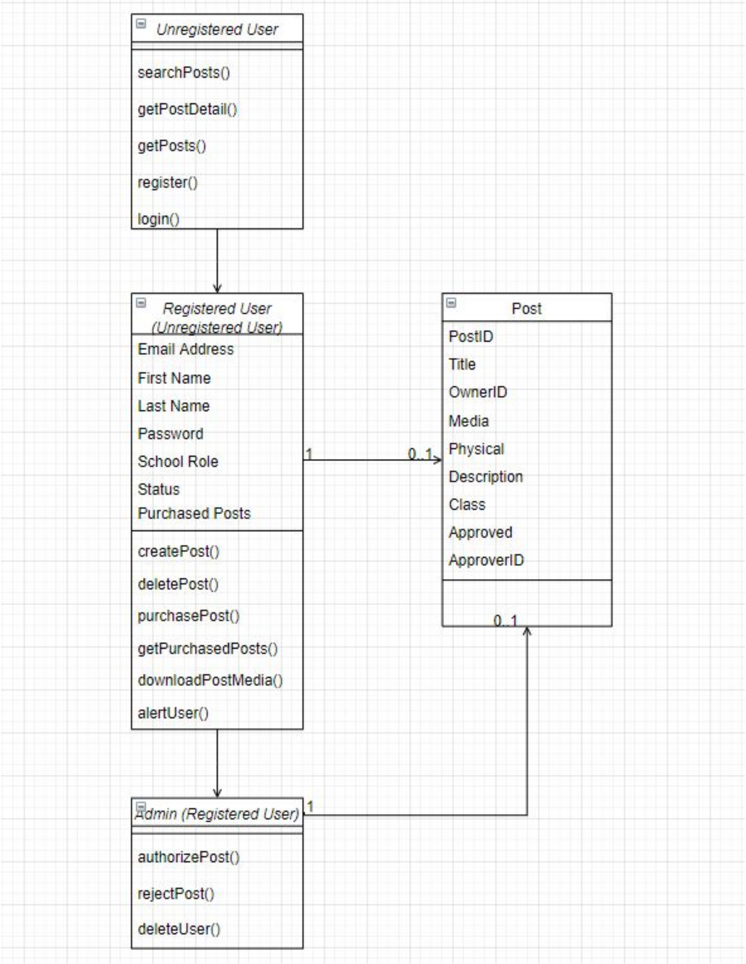
- PUT /user : Update user information
- DELETE /user: Delete user

Post API:

- GET /post/all : Return all approved posts
- GET /post?id={id} : Return a post's information.
- GET /post/approval : returns a list of posts to be approved (used by admin).
- GET /post/requests : returns a list of buyers/post pairs for current user/seller to approve (purchase confirmation).
- POST /post : Create a new post
    - BODY: Multipart data format containing {title,media preview,media BLOB(if applicable),description,physical, class}
- POST /post/purchase : Update user's purchased items. If post is not free, requests confirmation from user.
    - BODY: {post_id, purchase:true/false, approve:true/false.
- POST /post/requests : Allows seller to approve a buyer's purchase
    - BODY: {buyer_id, post_id}
- PUT /post/approval : Admin to approves or rejects a post.
    - BODY: {post_id, approve: true/false}.
- DELETE /post?id={id} : Deletes a post

5. High Level UML Diagrams





6. Identifying key risks

Skills risks: We have no skill risks. As a preventative measure we have discussed the idea of everyone doing a quick boot camp to understand the languages we are using.

Schedule risks: We currently have no schedule risks, everyone is meeting their goals discussed in our meetings. We hold three meetings per week practicing Scrum. In the future I plan to move into an Agile team development.

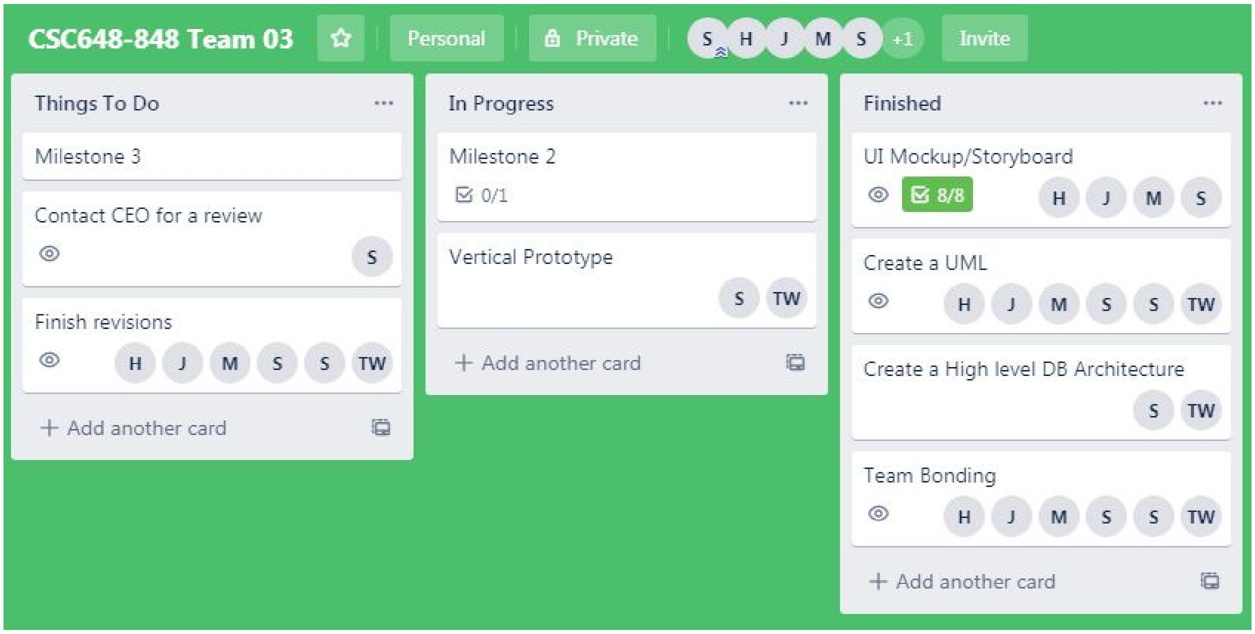
Technical risks: As far as any technical issues, we seem to be well off. Eric is a great asset to our team. Having industry experience, as well as, knowing good programming practices he is a source we will look towards for any technical risks.

Teamwork risks: In the beginning we had issues with team members not showing up to meetings. As of now we have ironed out those wrinkles and are proceeding without any issues. We had our first team bonding experience after our meeting on March 20th.

Legal/content risks: As far as any legal risks there are none. We do not plan to take any copyrighted materials and use it in our project.

7. Product Management

For product management, I used Trello to show the current flow of work that needed to be done. It helps to have a team that's very active and involved with the whole project. We had a rocky start with Milestone 1, but things quickly shifted after we began Milestone 2. We're currently dealing with the COVID-19 pandemic, but this has actually turned into a positive for us. Our previous Milestone we were only meeting once a week. Our weekly scrum meetings have tripled and I feel that has increased our productivity. These three scrum meetings per week turn into miniature checkpoints before we hit the Milestone.



Things To Do

- Milestone 3
- Contact CEO for a review — S
- Finish revisions — H J M S S TW

In Progress

- Milestone 2 — ☑ 0/1
- Vertical Prototype — S TW

Finished

- UI Mockup/Storyboard — ☑ 8/8 — H J M S
- Create a UML — H J M S S TW
- Create a High level DB Architecture — S TW
- Team Bonding — H J M S S TW