

## Milestone 2

SW Engineering CSC648/848 Fall 2022

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Team 7

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## **1. Executive Summary**

We at Team 7 believe that the exchange of ideas is a fundamental component to a thriving educational environment. The selling and sharing of media, including pictures, videos, audio, and digital documents, is an essential component of this exchange of ideas. Unfortunately, this is typically managed either by private ad-based social media or restrictive educational platforms. GaterTrader is built by and for the people that give life to the university. GaterTrader is a web platform exclusive for San Francisco State University (SFSU) students, staff, and faculty to sell and share content that may be useful to all.

GaterTrader will be accessible on smartphones, tablets, and personal computers via the web. It will offer exclusive access to students, staff, and faculty. Users will be able to freely share media or offer it for sale to the rest of the university. Anyone will be able to browse and search for media. Users will be able to reach out to creators in order to express interest in purchasing or accessing content. GaterTrader will offer functionality especially tailored to collegiate use.

GaterTrader will benefit all of SFSU, including students, staff, and faculty. We are believers in the power of the exchange of media. GaterTrader will facilitate this exchange and foster collaboration, university culture, and a closer community between staff, students, and faculty.

GaterTrader will launch with unique features to best serve the university community. Students and faculty will immediately see a benefit from the school-friendly categorization of media by course and field of study. Professors will be able to publish their syllabi, notes, and handouts in one place. Students, for example, will have the opportunity to be rewarded for their creativity by facilitating buying and selling of media. Users will have the ability to collect their favorite posts into different categories, including but not limited to courses.

Team 7 developed GaterTrader as part of the computer science major's capstone course, Software Engineering (CSC648-848) with Professor Dragutin Petkovic. We are a diverse team of software engineers striving to make our "dent in the universe," beginning with San Francisco State University. Our team is made up of members from Asia, Europe, Latin America, and California, including our local San Francisco Bay Area.

## 2. Data Entities

### 2.1 Users

1. **unregistered-users:** they shall be able to browse the posts' content, search for specific content, view posts made by registered-users, and draft messages before sending them.
2. **registered-users:** they shall do all the things that unregistered-users do plus post multimedia documents and send messages to other registered-users.
3. **admin:** they shall be required to approve/disapprove the content of a post, they shall ban registered-users for violation of the webapp content policy.

## 2.2 Data Entities

4. **posts:** these entities are created by registered-users and they are visible to all users.  
They shall have:
  - a. post\_id
  - b. author\_id
  - c. title
  - d. post\_category
  - e. post\_description
  - f. post\_path
  - g. post\_creation\_time
  - h. post\_thumbnail
  - i. price
5. **messages:** these entities represent text messages sent by registered-users to other registered-users in relation to a specific post. They shall have:
  - a. message\_id
  - b. post\_id
  - c. author\_id
  - d. receiver\_id
  - e. message\_text
  - f. creation\_time
6. **categories:** these entities constitute the set of possible categories that each post can be associated with, they are going to be used in the search bar and in the posting page as a list to be chosen from when you search a post or when you post multimedia content. They shall have:
  - a. Category\_id
  - b. Category\_name
7. **users:** these entities are created to store a file record of each registered-user. They shall have:
  - a. user\_id
  - b. username
  - c. email
  - d. password
  - e. creation\_time
  - f. active

### **3. Functional Requirements**

#### **3.1 Priority 1**

##### **1. unregistered-users**

- a. shall be able to browse posts of items for sale.
- b. shall be able to register if they meet registration requirements.
- a. shall be able to login if they have previously created a registered-user account.
- b. shall be required to register or login in order to access media from posted items in full resolution.
- c. shall be required to register or login in order to contact another registered-user who has posted an item.

##### **2. registered-users**

- a. shall have all the requirements of unregistered-users.
- b. shall be able to post digital media for sale or for free.
- c. shall be able to receive messages from other registered-users interested in posts.
- d. shall be able to reply to messages from other registered-users who have messaged them regarding .

##### **3. admin**

- a. admin shall have all requirements of unregistered-users and registered-users.
- b. shall be required to approve each media item before it can be publicly accessed in order to verify that it conforms to GaterTrader terms of use and content policies.
- c. shall be required to delete posts that violate the terms of use and content policy.
- d. shall be required to ban registered-users who violate the terms of use or content policies of GaterTrader.

#### **3.2 Priority 2**

##### **1. unregistered-users**

- a. shall be able to search posts using a query.
- b. shall be able to filter posts by categories:
  - i. free or paid.
  - ii. type of media.
  - iii. course.

##### **2. registered-users**

- a. shall be able to favorite posts.
- b. shall be able to view posts they have favorited.

##### **3. admin**

### **3.3 Priority 3**

#### **1. unregistered-users**

- a. shall be able to filter posts by:
  - i. professor.
  - ii. college.
  - iii. price brackets.

#### **2. registered-users**

- a. shall be able to create named lists to group favorited posts.

#### **3. admin**

- a. shall be able to accomplish administrative tasks using a dashboard on the website.

## 4. UI Storyboards

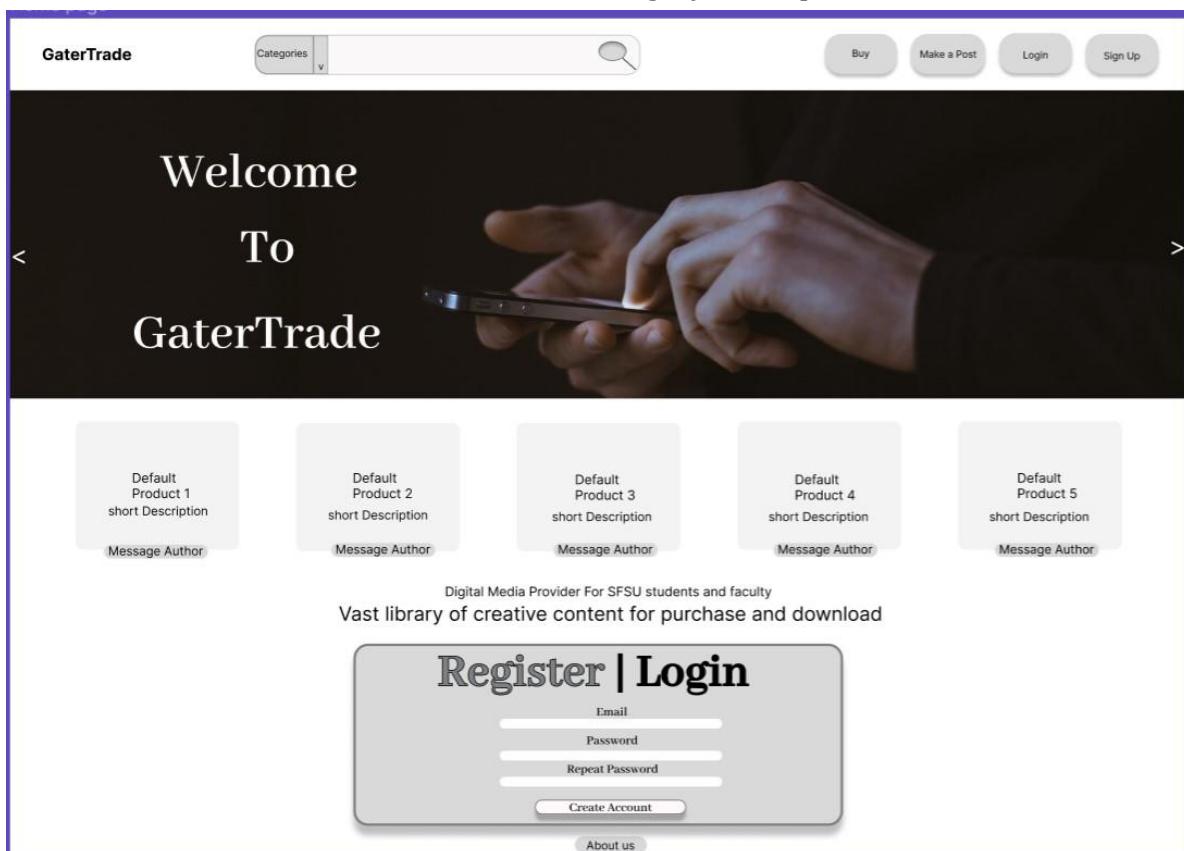
### 4.1 StoryBoard 1: Search

\*color is used to depict user selection or text input. Not the color choice for the site. Purple is the user chosen figma background (poor photo crop)\*

\*Shadows are for visual effect and have no final place in the implementation of the webpage.\*

**Use Case Description:** Fiona searches the site for media based on course classification.

1) Fiona types in the address which leads her to the site's home page. She aims to find an eBook based on her course. She selects the category and inputs her course name.



- 2) Fiona selects the category “Courses” from the dropdown menu and inputs “CSC 648.” She presses ‘enter’ and is greeted with a populated page with course materials.

The screenshot shows a web browser window for 'GaterTrade'. At the top, there's a navigation bar with 'Categories' (dropdown), 'CSC 648' (search input), a magnifying glass icon, and buttons for 'Buy', 'Make a Post', 'Login', and 'Sign Up'. Below the header is a large banner with the text 'Welcome To GaterTrade' and a background image of hands holding a smartphone. The main content area displays five product cards, each with a placeholder image, a title ('Default Product 1 short Description'), a 'Message Author' link, and a 'Digital Media Provider For SFSU students and faculty' message. Below the products is a 'Register | Login' form with fields for Email, Password, Repeat Password, and a 'Create Account' button. A small 'About us' link is visible at the bottom of the form.

GaterTrade

CSC 648

Welcome To GaterTrade

< >

Default Product 1 short Description  
Message Author

Default Product 2 short Description  
Message Author

Default Product 3 short Description  
Message Author

Default Product 4 short Description  
Message Author

Default Product 5 short Description  
Message Author

Digital Media Provider For SFSU students and faculty  
Vast library of creative content for purchase and download

Register | Login

Email  
Password  
Repeat Password  
Create Account

About us

**3a)** The search bar maintains the previous state. As Fiona continues to browse the site, Fiona notices an item which grabs her attention. She clicks on the content and is greeted by a content page with the selected content.

The screenshot shows a website interface for 'GaterTrade'. At the top, there is a navigation bar with 'Courses' (selected), 'CSC 648' (searched term), and a magnifying glass icon. To the right are buttons for 'Buy', 'Make a Post', 'Login', and 'Sign Up'. Below the navigation, the text 'Courses > CSC 648' and 'Showing 1 - 10 Results of 50' is displayed. The main area is titled 'Results' and contains ten items arranged in two rows of five. Each item card has a title ('Default Product 1' through 'Default Product 5'), a short description, and a 'Message Author' link. The third item in the first row is highlighted with a blue background. Below the cards is a 'Related Items' section with a button showing page numbers 1, 2, 3, 4, 5, and '>'. At the bottom left is an 'About us' link.

**Courses > CSC 648**

Showing 1 - 10 Results of 50

**Results**

Default Product 1  
short Description  
Message Author

Default Product 2  
short Description  
Message Author

**Default Product 3  
short Description  
Message Author**

Default Product 4  
short Description  
Message Author

Default Product 5  
short Description  
Message Author

Default Product 1  
short Description  
Message Author

Default Product 2  
short Description  
Message Author

Default Product 3  
short Description  
Message Author

Default Product 4  
short Description  
Message Author

Default Product 5  
short Description  
Message Author

**Related Items**

1 2 3 4 5 >

About us

- 4a)** The content page displays the author's name and content type, with the properties near an image of the media. Fiona notices the price and is excited to message the author of this eBook. Fiona clicks submit and is greeted with a “registration | login” page.

GaterTrade

Courses CSC 648

Buy Make a Post Login Sign Up

Courses > CSC 648

Showing 1 Result

George Hixler's eBook



**Legacy of the Midnight Marauders**

Description: This will be info on the book.  
Short description.

PRICE: FREE  
Popularity: High

FileSize: 3.23 MB FileType: eBook Category: Course Material Price: 0.00

Message Author . Max 150 characters.

Text Showing Interests in materials. This is a user message.

Clear Message Submit Message

About us

**5a)** Fiona is an unregistered user and must input her student information in order to message the author of this post. Her SFSU email and a password are required to use the site in full. Fiona fills out the registration form to become a registered user.

The screenshot shows a web browser window for the GaterTrade website. At the top, there is a navigation bar with links for 'Courses' (highlighted), 'CSC 648', a search icon, and buttons for 'Buy', 'Make a Post', 'Login', and 'Sign Up'. Below the navigation, the text 'Courses > CSC 648' and 'Showing 1 - 10 Results of 50' is displayed. A sidebar on the left shows a stack of books with the text 'FileSize: 3.23 MB FileType: eBook Category:'. In the center, a large modal window titled 'Register | Login' contains three input fields: 'Email', 'Password', and 'Repeat Password', each with a corresponding text input box. Below these fields is a 'Create Account' button. To the right of the modal, a section titled 'Midnight Marauders' displays a snippet of text: 'info on the book. cption.' At the bottom of the page, there are two buttons: 'Clear Message' and 'Submit Message'. A small 'About us' link is located at the very bottom center.

**Courses > CSC 648**  
Showing 1 - 10 Results of 50

FileSize: 3.23 MB FileType: eBook Category:

**Register | Login**

Email

Password

Repeat Password

Create Account

Midnight Marauders

info on the book. cption.

Message Author . Max 150 characters.

Text Showing Interests in materials. This is a user message.

About us

## Alternative Route

3b) Alternatively, Fiona can press the 'Message Author' button when she first encounters the material of interest from the search results. When Fiona clicks this, she is greeted with a pop up to create and send a message to the author of the post.

The screenshot shows a search results page for the course 'CSC 648'. At the top, there is a navigation bar with 'GaterTrade' logo, 'Courses' dropdown, 'CSC 648' search input, and buttons for 'Buy', 'Make a Post', 'Login', and 'Sign Up'. Below the navigation, the text 'Courses > CSC 648' and 'Showing 1 - 10 Results of 50' is displayed. The main area is titled 'Results' and contains ten search results items arranged in two rows of five. Each item has a thumbnail, a title ('Default Product 1' through 'Default Product 5'), a short description, and a 'Message Author' button. The third item in the top row has its 'Message Author' button highlighted with a yellow border. Below the results, a 'Related Items' section is visible, followed by a page navigation bar with numbers 1-5 and a 'Next' button. At the bottom, there is a 'About us' link.

**4b)** Fiona is greeted with this pop up when she clicks to message the author of the content after searching by category and inputting her course name. Upon clicking ‘enter’ or “submit message” Fiona is greeted with the “registration | login” page.

The screenshot shows a web interface for a platform named "GaterTrade". At the top, there's a navigation bar with "Courses" (selected), "CSC 648" (highlighted in blue), and a magnifying glass icon. To the right are buttons for "Buy", "Make a Post", "Login", and "Sign Up".

The main content area is titled "Results" and displays five items, each labeled "Default Product 1" through "Default Product 5" with a "short Description" and a "Message Author" button.

A central modal dialog is open, prompting the user to "Text Showing Interests in materials. This is a user message." It includes a character limit of "Message Author 150 character max." and two buttons: "Clear Message" and "Submit Message".

Below the modal, a "Related Items" section is visible, showing the same five products listed earlier. At the bottom of the page, there are navigation links for "1 2 3 4 5 >" and a link to "About us".

**5b)** Fiona is an unregistered user and must input her student information in order to message the author of this post. Her SFSU email and a password are required to use the site in full. Fiona fills out the registration form to become a registered user.

The screenshot shows the GaterTrade website interface. At the top, there is a navigation bar with the logo "GaterTrade", a "Courses" dropdown menu, the course code "CSC 648", a search icon, and buttons for "Buy", "Make a Post", "Login", and "Sign Up". Below the navigation, the page title is "Courses > CSC 648" and it displays "Showing 1 - 10 Results of 50". The main content area features a large central modal titled "Register | Login". Inside the modal, there are three input fields: "Email", "Password", and "Repeat Password", each with a placeholder text "Default Product 1 short Description". Below these fields is a "Create Account" button. At the bottom of the modal are two buttons: "Clear Message" and "Submit Message". Outside the modal, there are five small product cards arranged in a grid. Each card has a "Message Author" button. At the very bottom of the page, there is a "Related Items" section and a page navigation bar with links 1, 2, 3, 4, 5, and a right arrow.

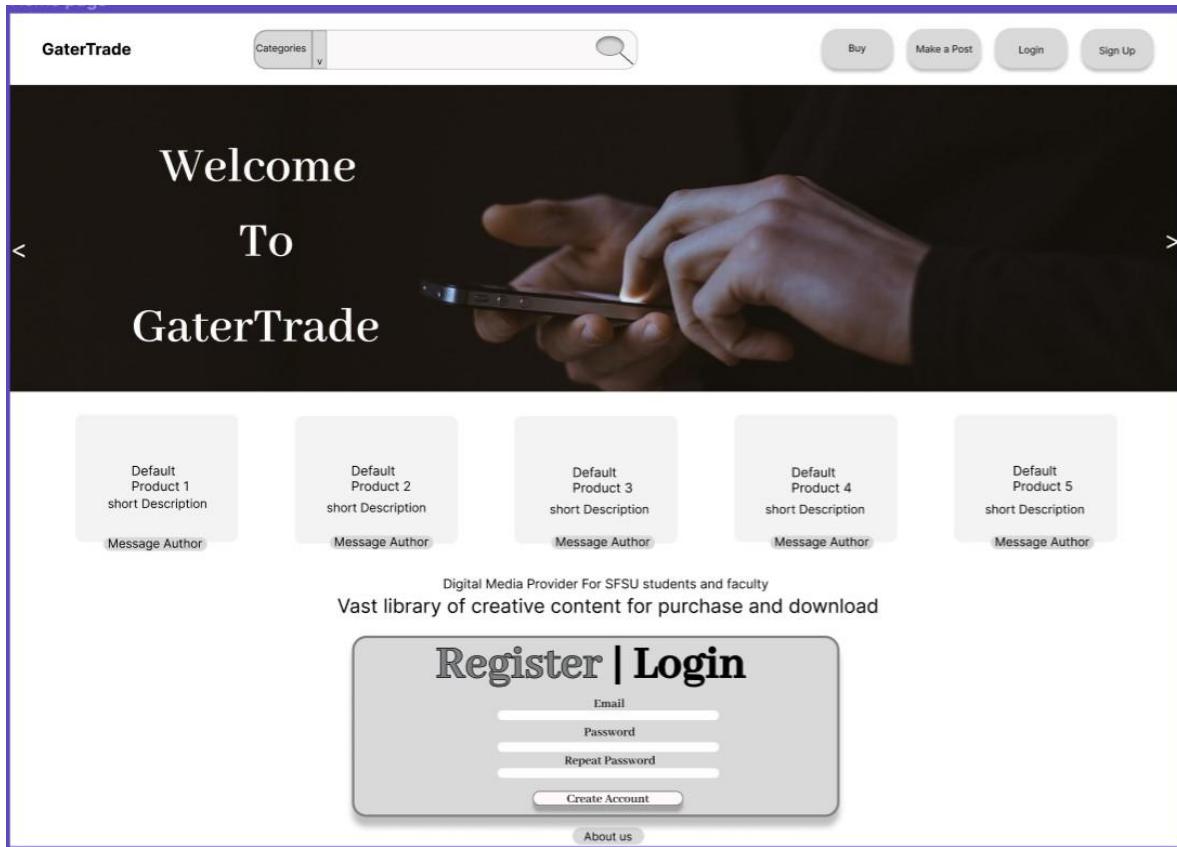
## 4.2 StoryBoard 2: Posting

\*color is used to depict user selection or text input. Not the color choice for the site. Purple is the user chosen figma background (poor photo crop)\*

\*Shadows are for visual effect and have no final place in the implementation of the webpage.\*

**Use Case Description:** Frank uses GaterTrade to make a post for his course materials.

- 1) Frank is greeted with the home page of GaterTrade and locates the “Make a Post” button.



2) Frank finds what he needs and clicks the “make a post button”.

The screenshot shows the homepage of GaterTrade. At the top, there is a navigation bar with the site name "GaterTrade" on the left, a "Categories" dropdown menu, a search bar containing the placeholder "eg: 'CSC 648'" with a magnifying glass icon, and four buttons on the right: "Buy", "Make a Post" (which is highlighted in yellow), "Login", and "Sign Up".

The main header features the text "Welcome To GaterTrade" in a large, serif font, with a background image of a person's hands holding a smartphone.

Below the header, there are five product cards, each with a thumbnail image, a title ("Default Product 1" through "Default Product 5"), a short description, and a "Message Author" link.

Centered below the products is a promotional message: "Digital Media Provider For SFSU students and faculty" and "Vast library of creative content for purchase and download".

At the bottom center is a large, rounded rectangular button labeled "Register | Login". Inside this button, there are input fields for "Email", "Password", and "Repeat Password", along with a "Create Account" button at the bottom and an "About us" link at the very bottom.

- 3) Frank locates the “Course Materials” option and selects this in order to upload his content.

GaterTrade

Courses v eg: "CSC 64S" 

Buy Make a Post Login Sign Up

**Posting**

**Make a Post**

**Photos**   
Click to add photos  
Accepted types: JPEG, SVG, GIF, PNG, PDF

**Audio**   
Click to add audio  
Accepted files: WAV, MP3, WMA, AIFF

**Video**   
Click to add video  
Accepted types: MOV, MP4, WMV, MKV

**E-Book**   
Click to add E-book  
Accepted types: PDF, EPUB, KINDLE FILE FORMAT

**Course Material**   
Click to add course material  
Accepted types: JPEG, PDF, MP3, EPUB, WAV

About us

- 4) Frank fills out the form for his course material and uploads his file. He then clicks the option to add the post.



### Posting

#### Make a Post: Course Material

**Course Material**



Accepted types: JPEG, PDF, MP3, EPUB, WAV

**Author**

**Title**

**Category**

**Description**

**Price**

**Click to add Post**

About us

5) Login or register pops up, he fills out the form and he selects login.

The screenshot shows a user interface for a website called "GaterTrade". At the top, there is a navigation bar with links for "Courses", a search bar containing "eg: "CSC 648"" and a magnifying glass icon, and buttons for "Buy", "Make a Post", "Login", and "Sign Up". Below the navigation bar, the word "Posting" is displayed. A main title "Make a Post: Course Material" is centered above a large rectangular input area. This input area has a header "Course Material" and contains a small icon of a person at a desk. Inside the input area, there is a file upload section with the text "lovelyday.pdf" and a "Upload" button, along with a note "Accepted types: JPEG, PDF, MP3, EPUB, WAV". Overlaid on the bottom right of this input area is a modal window titled "Register | Login". The modal has fields for "Email" (containing "fRank12@sfsu.edu"), "Password" (containing "\*\*\*\*\*"), "Repeat Password" (containing "\*\*\*\*\*"), and a "Login" button. Below the modal is a button labeled "Click to add Post". At the very bottom of the page, there is a link "About us".

- 6) The pop up disappears, the page is populated with the account option(top), the signup and login option disappears(top), and franks clicks the button to add the post.



## Posting

### Make a Post: Course Material

**Course Material**



lovelyday.pdf

Accepted types: JPEG, PDF, MP3, EPUB, WAV

**Author**

Author Name

**Title**

Title of content

**Category**

Category of Content

**Description**

Content Description

**Price**

Price in \$

**Click to add Post**

[About us](#)

7) Frank is greeted with a message from the GaterTrade admin team which thanks him for making a post, and states that it may take up to 24 hours to approve the post. Frank is also greeted with the option to view more posts.

The screenshot shows a user interface for a platform called GaterTrade. At the top, there is a navigation bar with links for 'Courses' (selected), a search bar containing 'eg: "CSC 64S"', and buttons for 'Buy', 'Make a Post', 'Login', and 'Sign Up'. Below the navigation, the word 'Posting' is displayed, followed by a large button labeled 'Review Post'. A central message box displays the text 'Post Submitted' and 'Thank you! Post is Awaiting Review!'. Below this, a note from the admin team reads: 'Hi there, thank you for submitting your post. Our admin are busy at work. It may take up to 24 hours for your post to be approved.' At the bottom of this message, it says '-Sincerely, GaterTrade Admin Team'. Below the message box, there is a section titled 'Browse Posts from other Creators' featuring three placeholder cards for products. Each card has the text 'Default Product 1 short Description' and 'Message Author'. At the bottom of this section are two buttons: 'View more posts' and 'Home'. A small 'About us' link is visible at the very bottom of the page.

GaterTrade

Courses v eg: "CSC 64S"

Buy Make a Post Login Sign Up

Posting

Review Post

Post Submitted

Thank you! Post is Awaiting Review!

Hi there, thank you for submitting your post.  
Our admin are busy at work. It may take  
up to 24 hours for your post to be approved.

-Sincerely, GaterTrade Admin Team

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Browse Posts from other Creators

Default Product 1 short Description  
Message Author

Default Product 2 short Description  
Message Author

Default Product 3 short Description  
Message Author

View more posts Home

About us

### 4.3 StoryBoard 3: Admin

**Use case description:** Liam the admin of GatorTrade logs into his admin account where he finds there are new pending posts waiting for approval. He goes through the new posts and checks to make sure they are in the correct category and appropriate. After he determines that the post is ready to go he will then approve it and a message will be sent to the seller.

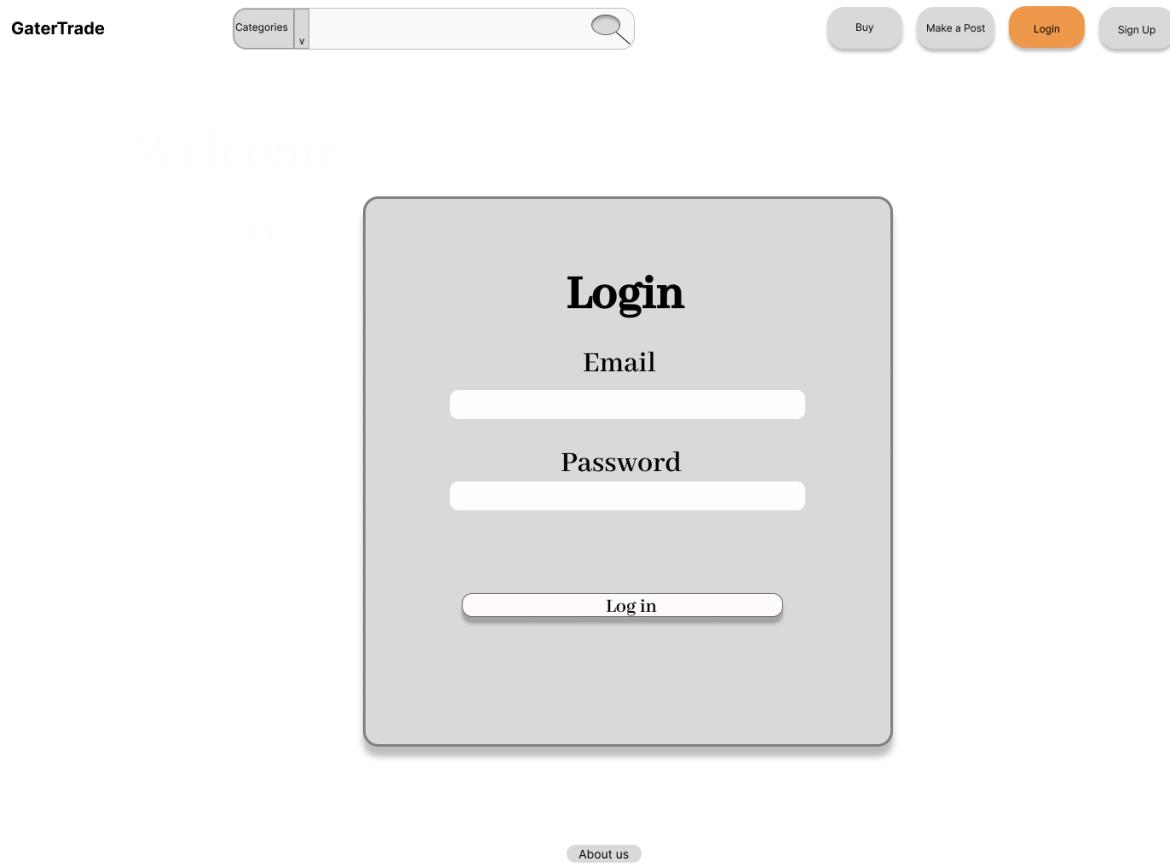
- 1) The home page is displayed.



2) Click login to go into admin account

The screenshot shows the GaterTrade website homepage. At the top, there is a navigation bar with the brand name "GaterTrade" on the left, a "Categories" dropdown menu, a search bar with a magnifying glass icon, and four buttons: "Buy", "Make a Post", "Login" (which is highlighted in orange), and "Sign Up". Below the navigation bar is a large banner with the text "Welcome To GaterTrade" and a background image of a person's hands holding a smartphone. Underneath the banner, there are five small product cards, each with a placeholder text: "Default Product 1 short Description" and "Message Author". Below these cards, the text "Digital Media Provider For SFSU students and faculty" and "Vast library of creative content for purchase and download" is displayed. At the bottom center is a large, rounded rectangular button labeled "Register | Login" in bold, dark font. Inside this button, there are three input fields labeled "Email", "Password", and "Repeat Password", followed by a "Create Account" button at the bottom right. A small "About us" link is located just below the "Create Account" button.

3) Admin Liam types in his credentials to get logged in.



- 4) Liam sees that there are pending posts to view.

The screenshot shows the CaterTrade software interface. At the top, there is a navigation bar with the 'CaterTrade' logo, a 'Courses' dropdown menu, a search bar with a magnifying glass icon, and three buttons: 'Make a Post', 'Hi, Liam', and 'Inbox'. Below the navigation bar, the text 'Posts > Pending' is displayed, followed by 'Results -- Showing 1 - 10 of 50'. The main area is titled 'Pending Postings' and contains two rows of five items each. Each item card has a red circular badge in the top right corner. The items are labeled 'Default Product 1' through 'Default Product 5', each with a short description and a 'Message Author' button. Below the cards, a 'Related Items' button is visible, followed by a page navigation bar with numbers 1, 2, 3, 4, 5, and a greater than symbol (>). At the bottom of the screen, there are 'Dashboard' and 'About us' buttons.

CaterTrade

Courses

Make a Post

Hi, Liam

Inbox

Posts > Pending

Results -- Showing 1 - 10 of 50

Pending Postings

Default Product 1  
short Description  
Message Author

Default Product 2  
short Description  
Message Author

Default Product 3  
short Description  
Message Author

Default Product 4  
short Description  
Message Author

Default Product 5  
short Description  
Message Author

Default Product 1  
short Description  
Message Author

Default Product 4  
short Description  
Message Author

Default Product 4  
short Description  
Message Author

Default Product 4  
short Description  
Message Author

Default Product 5  
short Description  
Message Author

Related Items

1 2 3 4 5 >

Dashboard

About us

- 5) Liam clicks on the first post and reviews to make sure everything is correct and appropriate

GaterTrade Courses v 

Make a Post Hi, Liam Inbox

Pending Posts > CSC 648

Results- Showing 1 of 1

George Hixler's eBook



**Legacy of the Midnight Marauders**

Description: This will be info on the book.  
Short description.

PRICE: FREE

FileSize: 3.23 MB FileType: eBook Category: Course Material Price: 0.00

Message Author . Max 150 characters.

Deny Post Approve Post

Dashboard About us

---

- 6) Liam then approves the post and a message is sent to the seller.

GaterTrade

Courses

Pending Posts > CSC 648

Results- Showing 1 of 1

George Hixler's eBook

Legacy of the Midnight Marauders

Description: This will be info on the book.  
Short description.

This post has been reviewed and approved.  
A confirmation will be sent to the seller.

Thank you!

Exit

FileSize: 3.23 MB FileType: eBook Category: Course N

Message Author . Max 150 characters.

Approved

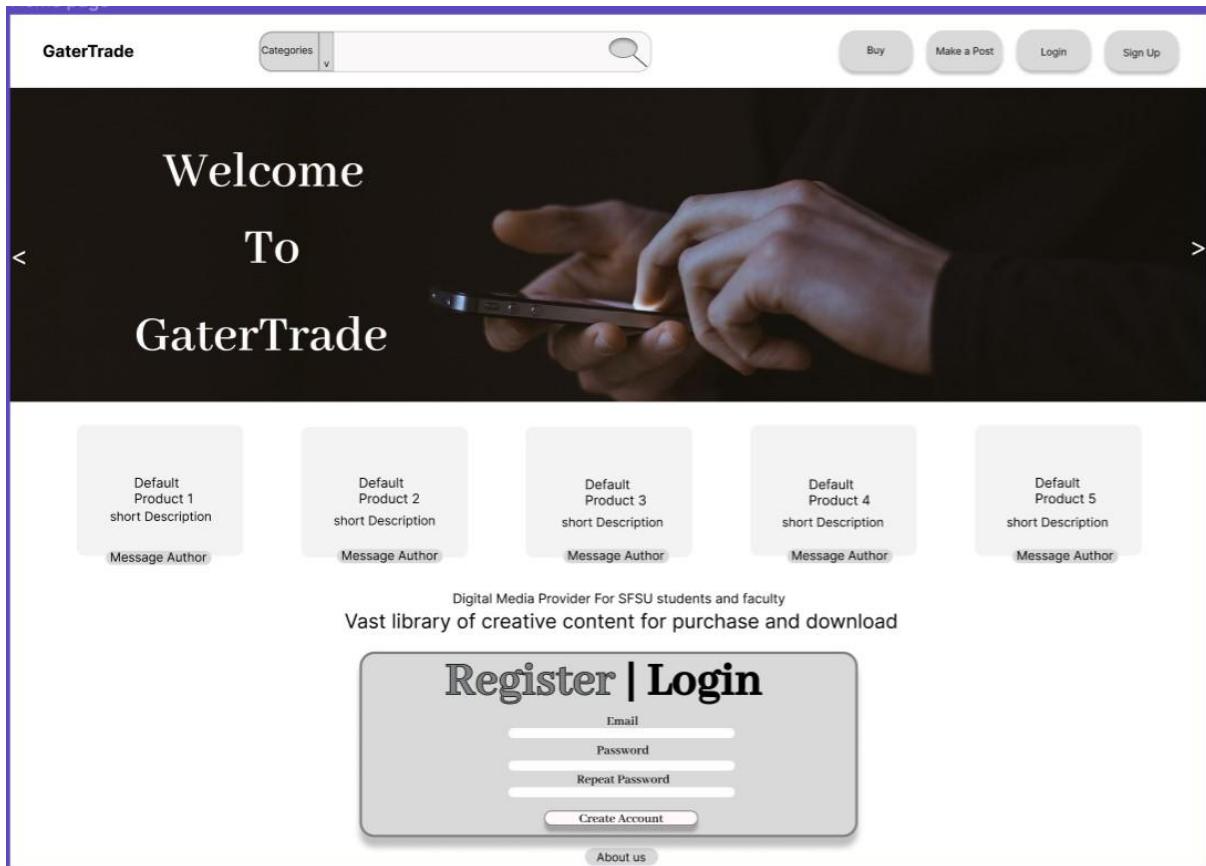
Dashboard

About us

#### 4.4 StoryBoard 4- Admin - Checking on Post

**Use Case Description:** Liam, finds a pending post that infringes upon copyrighted material and has the potential to lead to a potential lawsuit. He denies the post immediately. The user is then notified of the denial and reasoning.

- 1) Liam logs in with Admin credentials



2) Liam views the pending posts.

The screenshot shows the GaterTrade website interface. At the top, there is a navigation bar with the site name "GaterTrade" on the left, a search bar containing "CSC 648" with a magnifying glass icon, and three buttons on the right: "Buy", "Make a Post", and "Hi, Liam". Below the navigation bar is a large banner with the text "Welcome To GaterTrade" and a background image of a hand holding a smartphone. The main content area features five small product cards, each with a placeholder image, a title like "Default Product 1", a short description, and a "Message Author" button. Below these cards is a promotional message: "Digital Media Provider For SFSU students and faculty" and "Vast library of creative content for purchase and download". A "Welcome Back, Liam" message is displayed, along with a "Go to Dashboard" button.

GaterTrade

CSC 648

Buy Make a Post Hi, Liam

Welcome To GaterTrade

Default Product 1  
short Description  
Message Author

Default Product 2  
short Description  
Message Author

Default Product 3  
short Description  
Message Author

Default Product 4  
short Description  
Message Author

Default Product 5  
short Description  
Message Author

Digital Media Provider For SFSU students and faculty  
Vast library of creative content for purchase and download

Welcome Back, Liam

Go to Dashboard

- 3) Liam spots a post that poses a potential copyright problem.

GaterTrade

Courses CSC 648

Pending Posts > CSC 648

Posts Pending

Default Product 2

Default Product 2

Default Product 3

short Description

short Description

short Description

Message Author

Message Author

Message Author

Dashboard

About us

4) Liam denies publication of the post.

GaterTrade Courses CSC 648  Make a Post Hi, Liam Inbox

Pending Posts > CSC 648

Results- Showing 1 of 1

George Hixler's eBook



Legacy of the Midnight Marauders

Description: This will be info on the book.  
Short description.

PRICE: FREE

FileSize: 3.23 MB FileType: eBook Category: Course Material Price: 0.00

(Optional) - Message for why this post was denied. Attached is the admin's email for appeal process which could take 5-7 business days to process.

Message Author . Max 150 characters.

Deny Post Approve Post

Dashboard About us

5) The user is notified whether the post was approved or denied.

The screenshot shows a user interface for a course titled "CSC 648". At the top, there are navigation links for "Courses", "Make a Post", "Hi, User", and "Inbox". Below the header, the course title "CSC 648" is displayed with a search icon. The main content area is titled "Postings" and shows five items, each representing a "Default Product" with a "short Description" and "Message Author". Item 3 is highlighted with a yellow border around its "Message Author" link. A modal window is open over the items, containing a message about a posting being denied due to copyrighted material. The message reads: "After thorough review, the admin has denied your posting 'Legacy of the Midnight Crusader' due to the reasoning of Copyrighted material. Contact our admin at liam.admin@sfsu.edu for questions." A "Close" button is at the bottom of the modal. Below the modal, a "Related Items" section is visible, along with page navigation numbers (1-5) and links for "Dashboard" and "About us".

GaterTrade Courses CSC 648 Make a Post Hi, User Inbox

Courses > CSC 648 Results -- Showing 1 - 10 of 50

Postings

Default Product 1 short Description Message Author

Default Product 2 short Description Message Author

Default Product 3 short Description **Message Author**

Default Product 4 short Description Message Author

Default Product 5 short Description Message Author

Default Product 1 short Description Message Author

Default Product 4 short Description Message Author

Default Product 5 short Description Message Author

After thorough review, the admin has denied your posting "Legacy of the Midnight Crusader" due to the reasoning of Copyrighted material.  
Contact our admin at liam.admin@sfsu.edu for questions.

Close

Related Items

1 2 3 4 5 >

Dashboard About us

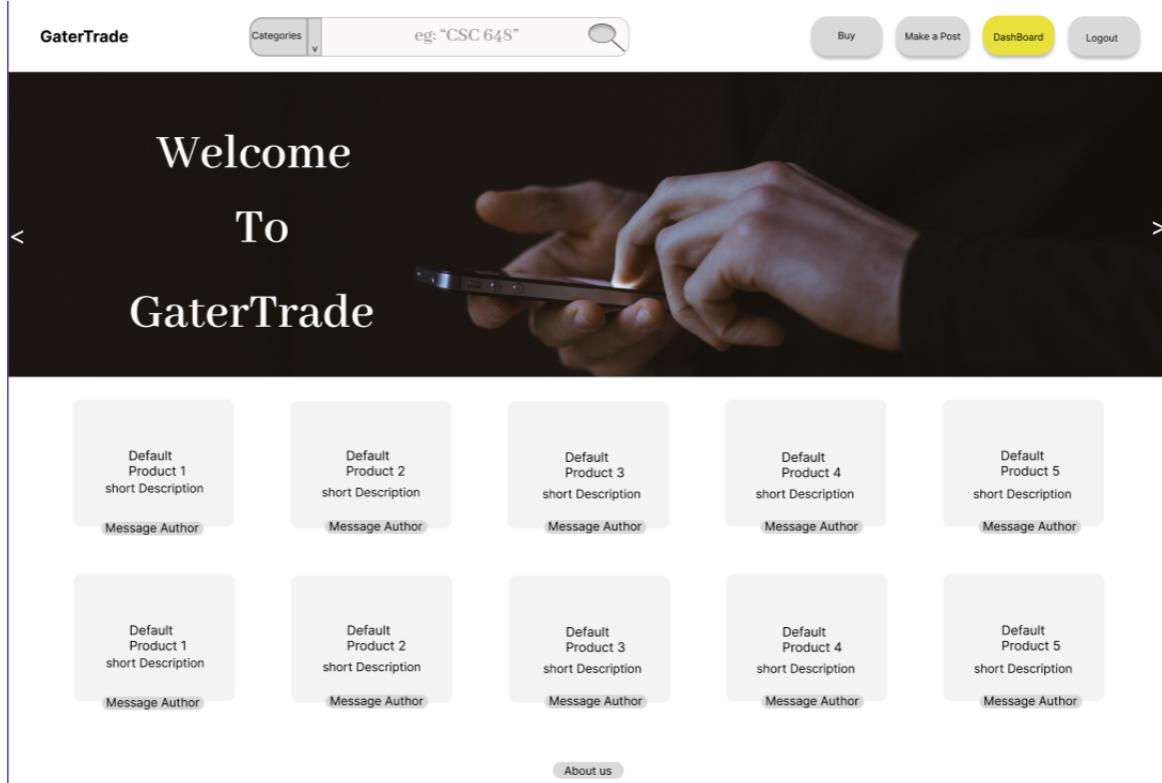
## 4.5 Storyboard 5: registered-user checking on post

\*color is used to depict user selection or text input. Not the color choice for the site. Purple is the user chosen figma background (poor photo crop)\*

\*Shadows are for visual effect and have no final place in the implementation of the webpage.\*

**Use Case Description:** Registered User Accessing Dashboard

- 1) Logged in view of Registered User. Registered user clicks on the dashboard to see their messages, posts, and pending posts.



2) When a Registered user clicks the dashboard, the page is populated with a dashboard view. The posts, messages, and pending posts can be selected from the side panel or top section. The description and data of the post will be displayed. Page will welcome reg. User based on account name.

The dashboard interface includes a header with 'GaterTrade' logo, 'Categories' dropdown, search bar ('eg: "CSC 648"'), and buttons for 'Buy', 'Make a Post', 'DashBoard', and 'Logout'.

**User Profile:** Shows a placeholder 'Image of User' and an 'Icon'.

**Side Panel:** Features a sidebar with 'Welcome, User' message, 'Image of User' placeholder, and three buttons: 'Messages' (with icon), 'Posts' (highlighted in yellow with icon), and 'Pending Posts' (with icon).

**Main Content Area:** Titled '[Name of User]'s Dashboard'. It contains a navigation bar with tabs: '[Name of User]'s Post (highlighted in yellow), Messages, and Pending Posts.

**[Name of User]'s Post Tab Content:** Displays four items, each labeled 'Default Product 5'. Each item has a description block containing:

- Post Description: Short description about post
- Post Category : Short description about post
- Post Filetype and size : Short description about post
- Post Statistics: Quantity of purchases / downloads

**Pagination:** Shows page numbers 1, 2, 3, 4, 5, and a ' > ' button at the bottom.

**Footer:** Includes an 'About us' link.

3) registered-user clicks on messages in the side panel to see old and new messages. Reg. Users have the option to reply or delete the messages.

The screenshot shows the GaterTrade platform's user dashboard. At the top, there is a navigation bar with the brand name "GaterTrade", a search bar containing the placeholder "eg: "CSC 64S"" with a magnifying glass icon, and several buttons for "Buy", "Make a Post", "Dashboard", and "Logout".

The main content area is titled "[Name of User]'s Dashboard". On the left, a sidebar displays a user profile picture, the text "Welcome, User", and three menu items: "Messages" (highlighted in yellow), "Posts", and "Pending Posts".

The central area is titled "[Name of User]'s Post" and contains a tabbed navigation for "Messages" (highlighted in yellow), "Pending Posts", and "New Messages" / "Old Messages". Below this, four message entries are listed, each with a user profile picture, message content, receive date, and "Reply" and "Delete" buttons.

At the bottom of the message list, there are page navigation links: 1, 2, 3, 4, 5, >.

A small "About us" link is visible at the bottom center of the dashboard area.

- 4) registered-user selects the reply option in the new messages tab. The reply option is highlighted and populates the page with a message feed.

The screenshot shows the GaterTrade user interface. At the top, there is a navigation bar with links for 'Categories', a search bar containing 'eg: "CSC 64S"', and buttons for 'Buy', 'Make a Post', 'DashBoard', and 'Logout'. Below the navigation bar is a user profile icon and the text '[Name of User]’s Dashboard'.

The main content area features a navigation bar with three tabs: '[Name of User]’s Post', 'Messages' (which is highlighted in yellow), and 'Pending Posts'. Below this is a section titled 'New Messages | Old Messages'.

The 'Messages' section displays four message items, each consisting of a user profile picture, the message content ('Message content from interested user to the seller'), the 'Received Date', and two buttons: 'Reply' and 'Delete'. The third message item's 'Reply' button is highlighted in yellow.

At the bottom of the message list is a pagination control with numbers 1 through 5 and a 'next' arrow.

On the left side of the dashboard, there is a sidebar with the following items:

- Welcome, User
- Image of User
- Icon
- Messages
- Icon
- Posts
- Icon
- Pending Posts

At the bottom center of the dashboard is a small 'About us' link.

- 5) The page is populated with “conversation with [user name of sender]” and the message feed is populated as well.

The screenshot shows the GaterTrade platform's user dashboard. At the top, there is a navigation bar with links for 'Categories', a search bar containing 'eg: "CSC 648"', and buttons for 'Buy', 'Make a Post', 'DashBoard', and 'Logout'. Below the navigation is a large profile icon of a person. The main title is '[Name of User]'s Dashboard'. On the left, a sidebar contains a welcome message 'Welcome, User' with an 'Image of User' placeholder, and links for 'Messages', 'Posts', and 'Pending Posts', each with an associated icon. The central area displays a conversation titled 'Your Conversation with [User Name of Sender]'. It lists four messages from an interested user to the seller, each with an 'Image of User' placeholder, the message content, the 'Received Date', and 'Reply' and 'Delete' buttons. The third message's 'Reply' button is highlighted with a yellow background. At the bottom of the conversation area, there are page navigation buttons labeled 1, 2, 3, 4, 5, and '>'. A small 'About us' link is located at the very bottom of the page.

- 6) The registered-user has the option to reply to received messages and the conversation is displayed chronologically. The image side flips depending on sender/receiver. Received/Sent date is placed on message feed.

The screenshot shows the GaterTrade platform's user interface. At the top, there is a navigation bar with links for 'Buy', 'Make a Post', 'Dashboard', and 'Logout'. Below the navigation bar is a search bar with placeholder text 'eg: "CSC 64S"' and a magnifying glass icon. On the left, there is a sidebar with a user profile icon and the text 'Welcome, User'. The sidebar contains four items: 'Messages' (selected), 'Posts', and 'Pending Posts', each with an associated icon. The main content area is titled '[Name of User]'s Dashboard' and features a tabbed menu with 'Messages' selected. Below the tabs, it says 'Reply to [User] Conversation started on [Date]'. The 'Messages' tab displays a 'Message feed' with two messages. The first message is from an 'interested user to the seller' and includes a timestamp 'Sent [date/time]', an image of the user, and the message content. The second message is to the user and includes a timestamp 'Received [date/time]', an image of the user, and the message content. At the bottom of the message feed is a text input field 'Write your reply...' and a yellow 'Send' button. Navigation arrows at the bottom indicate page 1 of 5.

- 7) The registered-user presses `send` and a popup confirms the message was sent. This is a short pop up and does not remain on the page.

The screenshot shows the GaterTrade user dashboard. At the top, there is a navigation bar with 'GaterTrade' logo, 'Categories' dropdown, a search bar containing 'e.g.: "CSC 648"', and buttons for 'Buy', 'Make a Post', 'Dashboard', and 'Logout'. Below the navigation is a sidebar on the left with a user icon and four menu items: 'Welcome, User' (with an image placeholder), 'Messages' (with an icon placeholder), 'Posts' (with an icon placeholder), and 'Pending Posts' (with an icon placeholder). The main content area is titled '[Name of User]’s Dashboard' and contains a tabbed section for '[Name of User]’s Post', 'Messages' (which is highlighted in yellow), and 'Pending Posts'. A sub-section titled 'Reply to [User] Conversation started on [Date]' is shown, featuring a 'Message feed' with a blue button labeled 'Message Sent!'. Below the feed, two messages are listed: one from the user ('Sent [date/time]') and one to the user ('Message content from interested user to the seller'). At the bottom of the feed is a text input field 'Write your reply...' and a yellow 'Send' button. Navigation arrows at the bottom indicate page 1 of 5.

## **5. High-level Architecture & Database**

The database shall store all the information in relation to the registered-users, the posts and their categories, and the exchanged messages among registered-users.

The posts entities shall include an attribute that refers to the file system where the actual multimedia object will be kept. That attribute will be a file path in the form of a string.

### **5.1 Database Tables**

1. users
2. categories
3. posts
4. messages

### **5.2 Users Table Columns**

1. user\_id: an auto incrementing integer, this shall be the primary key;
2. username: a unique string that identifies the user;
3. email: a unique string used to login;
4. password: a string used to login;
5. creation\_time: timestamp generated when the user is created;
6. active: a binary value to signal if the user is active or not.

### **5.3 Categories Table Columns**

1. category\_id: an auto incrementing integer, this shall be the primary key;
2. category\_name: a unique string that identifies the category.

## **5.4 Posts Table Columns**

1. post\_id: an auto incrementing integer, this shall be the primary key;
2. author\_id: an integer that identifies the author of the post, foreign key to users table;
3. post\_category: an integer that associates the post to the category, foreign key to categories table;
4. title: a string that briefly describes the multimedia object to be sold;
5. post\_description: a string that describes the multimedia object to be sold;
6. post\_path: a string that identifies the path to the file system that contains the multimedia object;
7. post\_thumbnail: a string to the thumbnail file that refers to the multimedia object;
8. price: a decimal value that represents the price of the multimedia object;
9. post\_creation\_time: timestamp generated when the user is created;
10. approved: a binary value to signal if the post has been approved or not by the admin;
11. active: a binary value to signal if the post is active or not.

## **5.5 Message Table Columns**

1. message\_id: an auto-incrementing integer that uniquely identifies the message, this shall be the primary key;
2. post\_id: an integer that uniquely identifies the post that the message refers to, this shall be the a foreign key to the posts table;
3. author\_id: an integer that identifies the message's author, this shall be a foreign key to the users table;
4. receiver\_id: an integer that identifies the message's receiver, this shall be a foreign key to the users table;
5. message\_text: a string that represents the content of the message;
6. creation\_time: timestamp generated when the user is created;

## **5.6 Media Format Requirements**

We have decided to accept the following format data:

1. video: .mp4, .mov, .avi
2. audio: .mp3, .wav, .aiff, .flac
3. image: .jpeg, .png, .gif, .heic
4. slides: .pptx
5. ebook: .epub
6. other documents: .pdf

If the data format is invalid it shall not be accepted and a pop-up message shows up to recommend the user to convert the data into a valid format.

## **5.7 Search**

The search bar shall take an input in the form of a string and it shall be concatenated with a percent sign '%' and then used as an input in the SQL command. The SQL command will use the format of `SELECT posts.id FROM posts WHERE posts_description LIKE '%input_string%' OR posts_title LIKE '%input_string%' OR author_id LIKE '%input_string%';`

This format is designed to maximize the matching result with a given input string. There could be a match in the description, in the title or in the author of the post. In case the query will return no matching result, a page should inform the unregistered-users or registered-users that there was zero matching result but it shall show the latest  $n$  posts to offer some possible alternatives to be considered by the users.

## **5.8 Software Framework**

The SW framework that we are going to use is the same indicated in the submission for Mileston\_0. No changes occurred at the moment.

We are not planning to implement any API in addition to the ones coming with the various modules that we have already installed. Those modules include : Bcrypt, Cors, Debug, Express-flash, Express-handlebars, Express-mysql-session, express-session, http-errors, Morgan, Multer, Nodemon, Sharp.

At this stage we are not planning to include any function related to rating, ranking, or automatic prioritizing of items.

## **6. Key Risks**

### **6.1 Skills**

1. Back-end
  - a. Risks:
    - i. potential lack of proficiency with structuring databases and relationships between entities.
    - ii. difficulties integrating back-end with front-end with controller.
  - b. Mitigation:
    - i. We will clearly define data entities and structure the relationships between them.
    - ii. Along with data entities and their relationships, we will map necessary functions and relationships needed to interface between front and back-end.
2. Front-end:
  - a. Risks:
    - i. potential lack of proficiency with APIs and front-end software stack.
    - ii. difficulty implementing front-end structure in a logical and consistent fashion.
  - b. Mitigation:
    - i. The team will share educational resources necessary to complete assigned tasks.
    - ii. The team will plan and discuss logical structures before implementation. Code review will be performed to ensure pull requests have followed best practices.

### **6.2 Schedule**

1. Risks:
  - a. Inefficient team organization can contribute to delays.
  - b. Lack of clear communication with regard to unfinished tasks could result in missed deadlines. Unexpected delays due to team member absences from illness, such as COVID-19, or other reasons will potentially cause delays.
2. Mitigation:
  - a. The team will adhere to assigned positions and responsibilities.
  - b. Team members will take ownership of tasks and be required to communicate with the rest of the team on progress and difficulties, including technical roadblocks or absences.

## 6.3 Technical

1. Risks:
  - a. Codebase safety with regards to GitHub use and deployment errors.
  - b. Implementation and maintenance difficulties with software stack, especially with MySQL and AWS.
2. Mitigation:
  - a. GitHub repository uses permissions to ensure that GitHub and/or other leads must approve branch merges after performing code reviews.
  - b. We will study how to use MySQL workbench and review documentation to figure out how to properly structure, deploy, and maintain the site.

## 6.4 Teamwork

1. *Risks*
  - a. Team members have conflicting schedules and are not able to meet synchronously with all or a majority of the team available.
  - b. Team members may have difficulty taking on their roles or specific tasks, communicating their difficulties, and collaborating to succeed.
2. Mitigation
  - a. We will use WhenToMeet and other tools to facilitate scheduling. Team leads or members working on front-end, back-end, and other related tasks can meet synchronously in smaller groups. Small group meetings can then be summarized and reported to the rest of the team asynchronously using Discord, Google Docs, and Trello.
  - b. Communication and check-ins between team leadership and other team members will be maintained as a near-daily routine. Team members will be required to share progress and encouraged to discuss roadblocks on tasks so the team may collaborate on solutions. Team members will take ownership of specific tasks to ensure accountability.

## **6.5 Legal/Content**

### **1. Risks**

- a. Users may attempt to post content which breaks copyright or content rules.
- b. Unlicensed material could be used by team members in an attempt to complete tasks.

### **2. Mitigation**

- a. Admins shall be required to approve or deny posts based on website terms of use. Repeat offenders may be banned.
- b. During code reviews, team members will be required to include documentation and give attribution or citations for any outside resources used.

## **7. Project Management**

Team 7 has communicated asynchronously primarily via a private Discord server. A text message group has been created for important or urgent communications.

When2Meet.com has been utilized in order to provide options for synchronous team meeting scheduling. A Trello board, using a Kanban template, has been adopted for project management. Tasks are organized based on status. Tasks are given ownership to team members who are then responsible for keeping task status up-to-date. Tasks are labeled according to Milestone and nature of work (e.g., Front-end or Back-end). Trello allows tracking of task completion so other members can review and work on dependent or related features. The team lead has recorded a short overview/tutorial of the Trello board for the team to have as reference (<https://www.youtube.com/watch?v=E1TRgWq0zJ0>). Required in-class team meetings are used in order to discuss milestone requirements, tasks, progress, and deadlines. Team members are given the opportunity to volunteer for tasks or are otherwise assigned tasks by team leadership. Deadlines are discussed and assigned verbally during meetings and/or given by team leadership via Discord and Trello. A shared team Google Drive folder is used to provide access to meeting recordings, project and meeting notes, and other shared resources.