

# SW Engineering CSC648/848 Fall 2022

## SFSU MEDIA STORE

### TEAM 3

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### Milestone 2

10/29/2022

### Revisions History

Date Submitted	Date Revised
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## **1) EXECUTIVE SUMMARY:**

When we joined this college, we needed to get access to the previous year recordings of the courses we had enrolled for. We went and checked on iLearn which is a go to platform for any course related contents. But unfortunately, it contains the content of the present semester only. We then had to ask my peers in college to share any recordings they had. In between all this painful process, we felt there was the need for a platform where any student could get access to any recordings for the courses they were looking for, as well as any other digital media useful for studying, without troubling others. This is when we decided to develop and launch a web platform "SFSU Media Store" for sharing media across SFSU students and faculty. Not only this, users can buy and sell any kind of digital media such as images, audios, videos, etc. on our web platform. It will be like a One Stop Store for all SFSU students and faculty to gain access to digital media. Our application will make searching for tutorials and class recordings/ presentations a lot easier since it will all be in one place. It will make the hassle of trying to find different information easier.

SFSU Media Store will let students and faculty browse through numerous digital media present on the web platform. Users can directly download the content if it is available for free. In case the content, is not available for free, the user can contact the seller by sending them a message via the application itself. To discuss moving forward with downloading the contents. Any student or faculty can upload the content and on submission they need to register on the application. To make sure no unsafe content goes live to the audience, every uploaded item will need the post approval for publishing from the admin.

To make browsing simpler, users will be provided with a search bar wherein they can search by title, course number, class, etc.. Also the contents on the web application are listed in different categories, which will help users navigate to the content easily. Users can also rate the content which will help other users in making wise decisions about buying that content in the future. Also, there will be a like and comment button on each content on the application. This will give users ideas on what topics are getting popular at SFSU.

We are a group of 6 SFSU students who started this Startup as a part of one of our course projects. Two of us are graduate students whereas the others are in their senior year of undergrad. Our expertise lies in diverse skills ranging from backend technologies like Python and Flask to front end technologies like Bootstrap and ReactJS. We have divided our group into three frontend engineers and three backend engineers. This way we have an equal work distribution within our group. Not only that but some have a lot of experience in one area but are curious about the other so this project gives us the opportunity to learn and explore different technologies. We also get to strengthen the skills we already have and create something unique.

## **2. LIST OF MAIN DATA ITEMS AND ENTITIES (EXPAND AS NECESSARY):**

- 1) Item (Any image or a video, etc)
  - Item\_id
  - Item\_title
  - Item\_blob
  - Item\_size
  - Item\_category (I.e. Audio, Video, Class, etc. Item category will be derived from this information)
  - Item\_created\_time
  - Item\_description
  - Item\_edited
  - Item\_rating
  - Item\_likes\_count
  - Item\_comments\_count
- 2) Item\_likes
  - Item\_id
  - User\_id
- 3) Item\_comments
  - Item\_id
  - User\_id
  - Comment\_text
- 4) Message
  - Message\_id
  - Message\_created
  - Message\_sender\_user\_id
  - Message\_recipient\_user\_id
- 5) Downloads
  - Download\_id
  - Item\_id
  - User\_id
- 6) Category
  - Item\_category
- 7) User\_records
  - User\_id
  - User\_type (Registered User, Admin)
  - User\_username
  - User\_first\_name
  - User\_last\_name
  - User\_email
  - User\_password
- 8) Rating
  - Item\_id

- User\_id
- Rating

### **3) FUNCTIONAL REQUIREMENTS - PRIORITIZED**

#### **- Priority 1**

##### Unregistered users:

1. Shall be able to browse items.
2. Shall be able to search items using media categories.
  1. Can search media using a category menu that will present media based on the type of content the media shows.
3. Shall be able to view item details.
4. Shall be able to search media using the author's name.
  1. The first and/or last name of an author can be searched.
5. Shall be able to search media using the item's title, class number, etc..
6. Shall be able to register to the website.

##### Registered Users

All of the above functionalities of unregistered users plus the following:

7. Shall be able to download the free item.
8. Shall be able to login into their personal account.
9. Shall be able to contact sellers to buy paid media item.
10. Shall be able to post an item.
11. Shall be able to view their dashboard.

##### Admin

12. Admin is required to approve the posts (before they go live) which are appropriate.
13. Admin shall be able to reject the posts (from going live) which are inappropriate.

## **- Priority 2**

### Unregistered users:

14. Shall be able to view comments on posts.

15. Shall be able to view likes on posts.

16. Shall be able to view ratings on posts.

### Registered Users

All of the above functionalities of unregistered users plus the following:

17. Shall be able to post ratings on item.

18. Shall be able to comment on other user's posts.

19. Shall be able to like other user's posts.

### Admin

20. Admin shall have access to all registered users' data.

21. Admin shall be able to view users' data (Data including media downloaded, media rating given, etc.)

## **- Priority 3**

### Unregistered Users

22. Shall be able to preview media.

### Registered Users

All of the above functionalities of unregistered users plus the following:

23. Shall be able to delete item.

24. Shall be able to edit item.

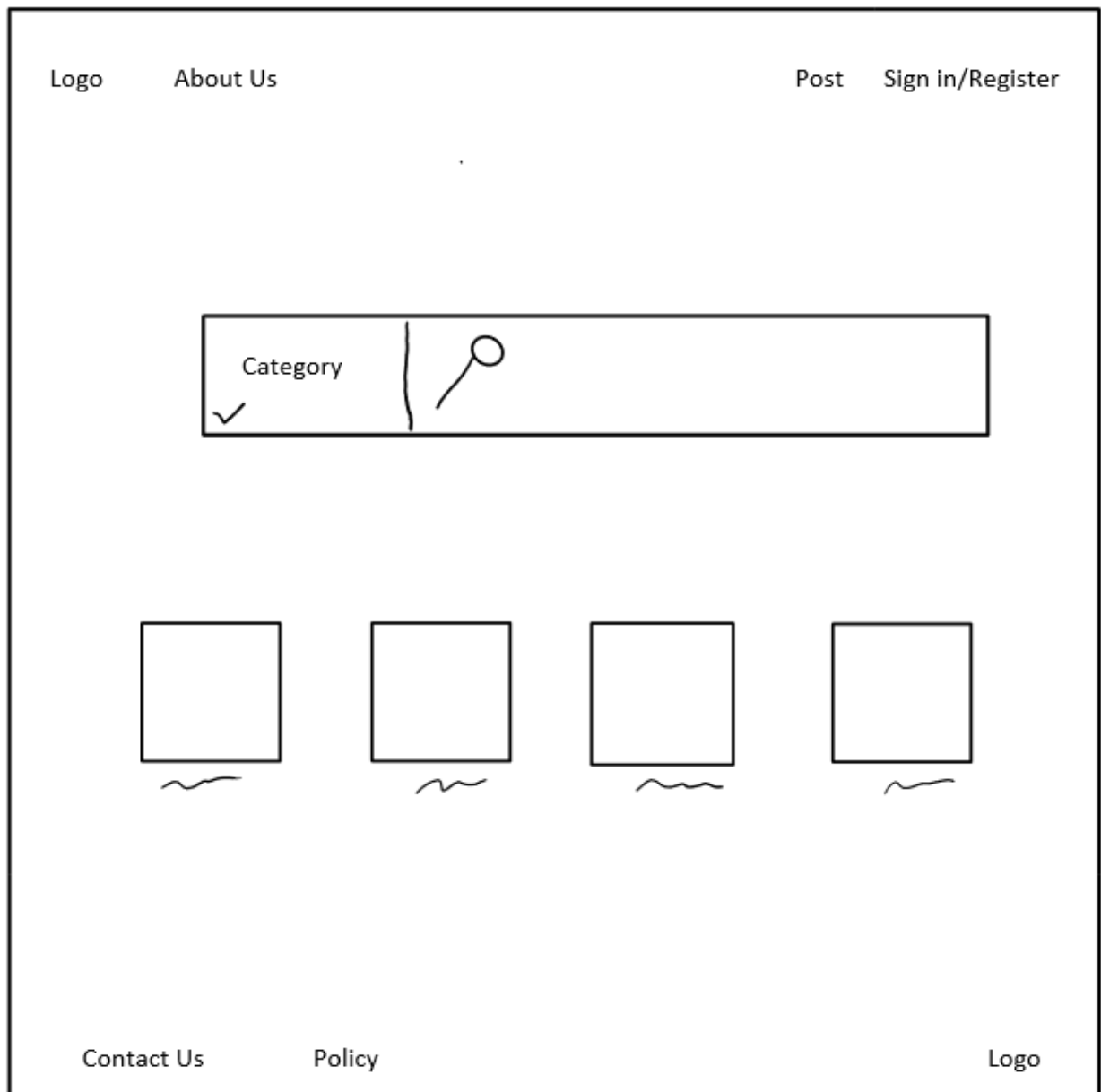
1. Users will be able to change the title of published media.
25. Shall be able to delete their account.
26. Shall be able to change their personal account settings.
  - a. This includes changing: password, user details.

Admin:

27. Admin shall have the permission to suspend registered users accounts.

#### **4) UI STORYBOARDS FOR EACH MAIN USE CASE :**

- 1) User Browses the items on home page



2) User Search results using item title and then all items with that search string will come

Logo

About Us

✓

|

🔍

Product Name

Post

Sign in/Register

Sort By

Contact Us

Policy

Logo

3) Unregistered user shall register :



Sign Up

First name

Last name

SFSU Id

Email

Password

Sign Up

4) User can sign in :

Sign in.

Sign In

Email Address

Password

Submit

5) User shall view item details :

Logo

About Us

✓

|

🔍

Post

Sign in/Register

Name of Product

Category

Price

Want to buy "  "?

Contact Seller

Contact Us

Policy

Logo

6) User shall Contact Seller to buy product after signing in :  
User searches for the item

O

Logo	About Us	<div><div>✓</div><div> </div><div>🔍</div><div>Product Name</div></div>	Post	Sign in/Register
				Sort By
<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	
<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	
Contact Us	Policy	Logo		

Logo

About Us

✓

|

○

Post

Sign in/Register

Name of Product

Category

Price

Want to buy "  "?

Contact Seller

Contact Us

Policy

Logo

On click of Contact Seller he is asked to sign in

Sign in.

## Sign In

Email Address

joe@gmail.com

Password

\*\*\*\*\*

Cancel

Submit


Logo	About Us	<div><div>✓</div><div> </div><div>○</div></div>	Post	<div>User Initials</div>
<div></div>		<div>Name of Product</div>		
		<div>Category</div>		
		<div>Price</div> <div></div>		
<div>Want to buy " " ?</div>		<div>Send Message to: Seller Name</div>		
<div>Contact Seller</div>		<div>Title: Product Name</div>		
		<div>Message:</div> <div>Send</div>		
Contact Us	Policy	Logo		

7) Download free product:

User search and finds the item

Logo

About Us

☐ | 

Product Name

Post

Sign in/Register

Sort By



Contact Us

Policy

Logo



Logo

About Us

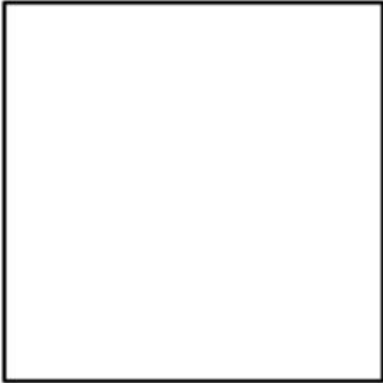
✓

|

🔍

Post

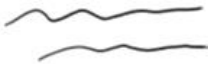
Sign in/Register



# Name of Product

Category

Free



Download

Contact Us

Policy

Logo

On click of download he is asked to sign in:

Sign in.

## Sign In

Email Address

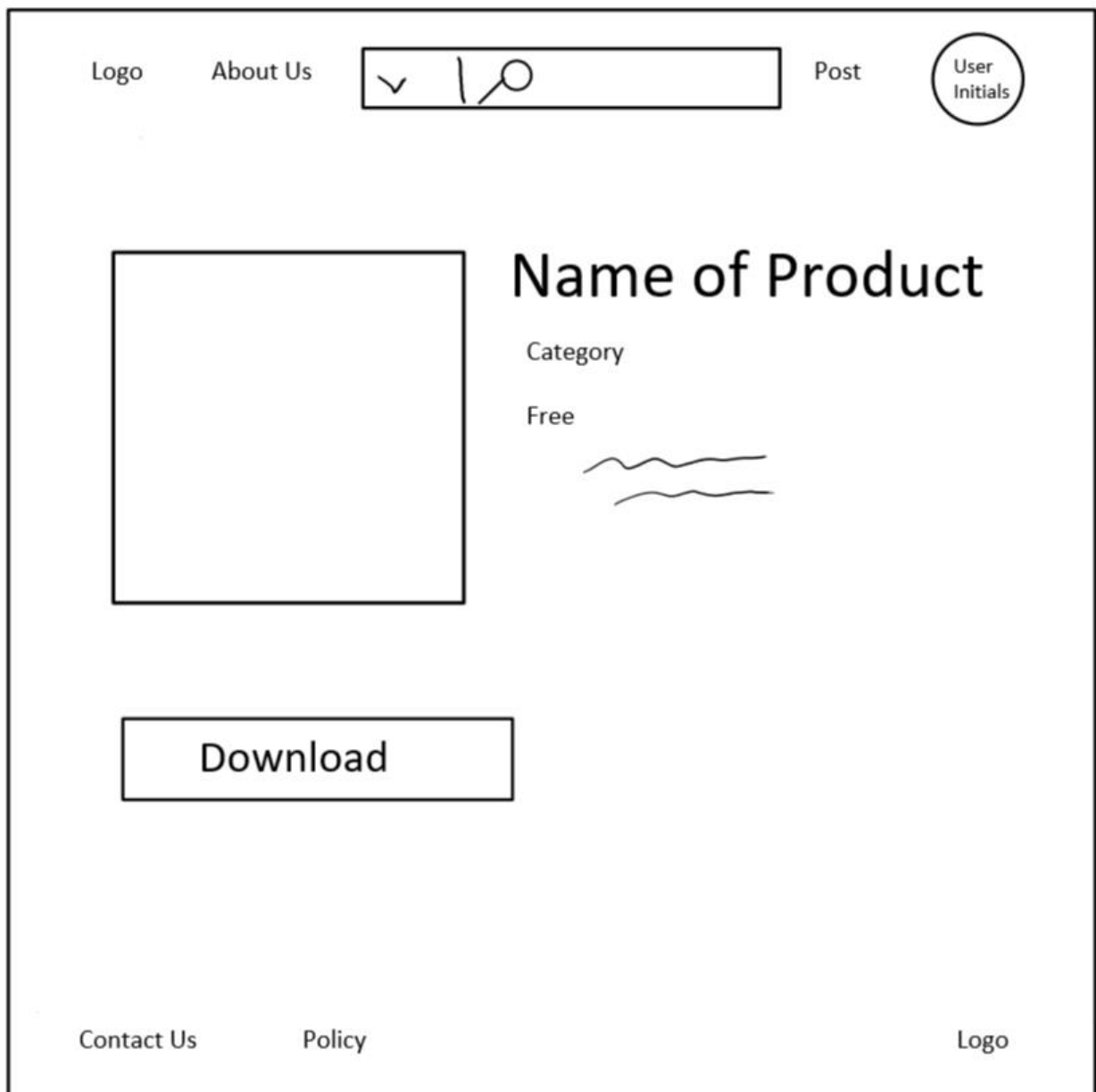
joe@gmail.com

Password

\*\*\*\*\*

Cancel

Submit



8)Dashboard:

Logo

About Us

✓

|

🔍

Post

User Initials

Hello Name !

My Messages

My Posts

Edit profile

First Name

Last Name

Contact Us

Policy

Logo

Dashboard my messages:

Logo

About Us

✓

|

○

Post

User Initials

Hello Name !

My Messages	My Messages	Sort By
	Message 1	
My Posts	Message 2	
	Message 3	
Edit profile		

Contact Us

Policy

Logo

Dashboard my posts:

Logo

About Us

✓

|

🔍

Post



Hello Name !

My Messages	My Posts		Sort By
	Post Name	Status	Date
My Posts	Post Name	Status	Date
Edit profile			

Contact Us

Policy

Logo

9)Post an Item :  
User opens the home page

The wireframe depicts a web page layout. At the top, a navigation bar contains the text 'Logo', 'About Us', 'Post', and 'Sign in/Register'. Below this is a large rectangular search bar. Inside the search bar, on the left, is a dropdown menu labeled 'Category' with a checkmark icon. To the right of the dropdown is a magnifying glass icon. Below the search bar, there are four square boxes arranged horizontally, each representing a product listing. Underneath each square box is a wavy line. At the bottom of the page, a footer contains the text 'Contact Us', 'Policy', and 'Logo'.

User can then post an item

[Logo](#)[About Us](#)

✓

|

○

[Sign in/Register](#)

Product Name:

Category:

Select category ✓

Price:

\$

Description:

Upload File

Post

[Contact Us](#)[Policy](#)[Logo](#)

On click of Post he is asked to Sign In



Sign in.

## Sign In

Email Address

joe@gmail.com

Password

\*\*\*\*\*

Cancel

Submit

Logo

About Us

✓

|

○

Post

User Initials

Product Name:

Category:

Select category ✓

Price:

\$

Description:

Upload File

Post

Contact Us

Policy

Logo

User is informed that post is pending for approval

Thank you your post is pending for approval!

[Continue Shopping](#)

For admin use cases we will be using workbench.

## **5) HIGH LEVEL ARCHITECTURE, DATABASE ORGANIZATION SUMMARY**

- *DB Organization* – Our MySQL db will have following tables (high level):
  - 9) Item (Any image or a video, etc)
    - Item\_id
    - Item\_title
    - Item\_blob
    - Item\_size
    - Item\_category (I.e. Audio, Video, Class, etc. Item category will be derived from this information)
    - Item\_created\_time
    - Item\_description
    - Item\_edited
    - Item\_rating
    - Item\_likes\_count
    - Item\_comments\_count
  - 10) Item\_likes
    - Item\_id
    - User\_id
  - 11) Item\_comments
    - Item\_id
    - User\_id
    - Comment\_text
  - 12) Message
    - Message\_id
    - Message\_created
    - Message\_sender\_user\_id
    - Message\_recipient\_user\_id
  - 13) Downloads
    - Download\_id
    - Item\_id
    - User\_id
  - 14) Category
    - Item\_category
  - 15) User\_records
    - User\_id
    - User\_type (Registered User, Admin)
    - User\_username

- User\_first\_name
- User\_last\_name
- User\_email
- User\_password

#### 16) Rating

- Item\_id
  - User\_id
  - Rating
- *Media Storage* – We will be storing our media as BLOB data types in MYSQL database. We will be using standard file types for each like mp4 for videos, mp3 for audios, and so on.
  - *Search filter and architecture* – Item category will be used to filter search results. We will be using SQL precise search for categories from DB column called Item\_category anded with MYSQL “%LIKE” search on text field like item\_description, item\_title, etc. In case our MYSQL query returns 0 search results we will be displaying a page of items with 6 popular items.

### **6) ACTUAL KEY RISKS FOR PROJECT AT THIS TIME:**

- **Skills risks:** The team is not very strong in front end development as no one from the team had earlier worked on any of the front-end frameworks. That being said, the team front end developers are learning front end frameworks like React and Bootstrap, as well as trying hands on React before the actual website development.
- **Schedule risks:** Given this covid times, there is a risk associated of being a team member getting infected which may impact his/ her deliverables. However, everyone is asked to let team lead know about this situation at the earliest so that lead can re-assign the tasks to other team members based on bandwidth.
- **Technical risks:** The team is not very familiar with the deployment part on AWS. However, team is learning how to deploy websites on AWS using tutorials.
- **Teamwork risks:** As of now we don't see any risk associated with team work. Team has found time other than the class meetings to collaborate and update on tasks.

### **7) PROJECT MANAGEMENT :**

We have been assigning tasks in our class team meetings and using discord and ZOOM meetings to update our progress on tasks up until now. For keeping record of who is doing which task, the team lead assigns the tasks to each team member based on their preferences and skills. Team keeps track of it using Google Spreadsheet. The team lead then shares a Google doc which is used by the team to work on their task. The work of each task member can be seen by everyone else using this Google doc. However, we will be soon moving to Trello (from next team meeting) to manage tasks as it will provide a more accurate and up to date account of the progress of each task and who is responsible for what. With Trello we can see who is responsible for what task, their progress on said task, and what tasks are completed or have yet to be started.