San Francisco State University

SW Engineering CSC648/848 Spring 2020

Snapster

TEAM 06

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Thomas Yu, Front End Software Engineer

Avery Chen Back End Software Engineer

Milestone 2

March 20th, 2020

Date Submitted	Date Revised	Instructors Feedback
March 20th, 2020		

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1. **Functional Requirements**

1. **Priority 1 (Must have)**

1.1. Unregistered users

1.1.1. Users shall be able to search and browse digital media on Snapster.

1.1.2. Users shall be able to search and browse by digital media categories.

1.1.3. Users shall be able to search and browse by San Francisco State course numbers and course name/title.

1.1.4. Users shall be able to see digital media metadata.

1.1.5. Users shall be able to register with their email, password and username.

1.1.6. Users shall be required to register in order to sell, buy or share digital media.

1.2. Registered users

1.2.1. Satisfy all the functionality requirements of unregistered users listed in Priority 1.

1.2.2. Users shall be able to login in order to sell, buy or share digital media.

1.2.3. Users shall be able to message the seller to buy the digital media.

1.2.4. Users shall be able to download digital media after purchasing it.

1.3. Admin

1.3.1. Satisfy all the functionality requirements of unregistered users listed in Priority 1.

1.3.2. Admin shall be required to review and approve content posted.

2. **Priority 2 (Desired)**

2.1. Unregistered users

2.1.1. Users shall be able to search and browse with filters.

2.2. Registered users

2.2.1. Satisfy all the functionality requirements of unregistered users listed in Priority 2.

2.2.2. Users shall have transaction history on their profile.

2.3. Admin

2.3.1. Satisfy all the functionality requirements of unregistered users listed in Priority 2.

2.3.2. Admin shall be required to report illegal activities of the users.

2.3.3. Admin shall be required to block suspicious registered users.

3. Priority 3 (Opportunistic)

3.1. Unregistered users.

3.1.1. Users shall be able to see reviews on digital media posted by the author.

3.1.2. Users shall be able to see suggested items on the Snapsters home page.

3.2. Registered Users

3.2.1. Satisfy all the functionality requirements of unregistered users listed in Priority 3.

3.2.1. Users shall be able to write reviews after purchasing digital media.

3.2.2. Users shall be able to purchase with a veteran discount on digital items if they are served in the US military.

3.2.3. Users shall be able to send a gift to another registered user.

3.2.4. Users shall be able to add digital media on the wish list.

3.3. Admin

3.3.1. Satisfy all the functionality requirements of unregistered users listed in Priority 3.

3.3.2. Admin shall be able to track active users' and company's activities.

3.3.3. Admin shall be able to see the company's business dashboard.

3.3.4. Admin shall be able to see users in active session.

2. List of main data items and entities.

1. **Unregistered user**
   1.1. Can search and browse digital media on www without registration or logging in.
   1.2. Can register if he or she wants to sell, buy or share digital media.

2. **Registered user**
   2.1. A registered user can sell, buy or share digital media on www.
   2.2. Can login to sell, buy or share digital media, and see his or her private activity on the dashboard.
   2.3. Can message the author to buy digital media from another registered user who posts the item.
   2.4. Can own digital media copyrights and post them on www.

3. **Admin**
   3.1. Can access all the data and content, can modify the database, view companies income, needs to register/login
   3.2. Must approve the registration of users, posts, can blacklist or report the illegal activities, needs to register/login

4. **Categories**
   4.1. Items posted by the authors must be categorized by the author for easy and fast search; categories selected by the authors for the sale of their items need to be approved by the moderator.
   4.2. Users shall see suggested items.

5. **Digital Media**
   5.1. Digital Media must be categorized by the registered user in order to sell.
   5.2. Digital Media must have metadata such as owner id, description, price and pointer to raw media file.
   5.3. Digital Media must have an author's license in order to be posted for sale.
   5.4. Digital Media must have an image to be posted for sale.

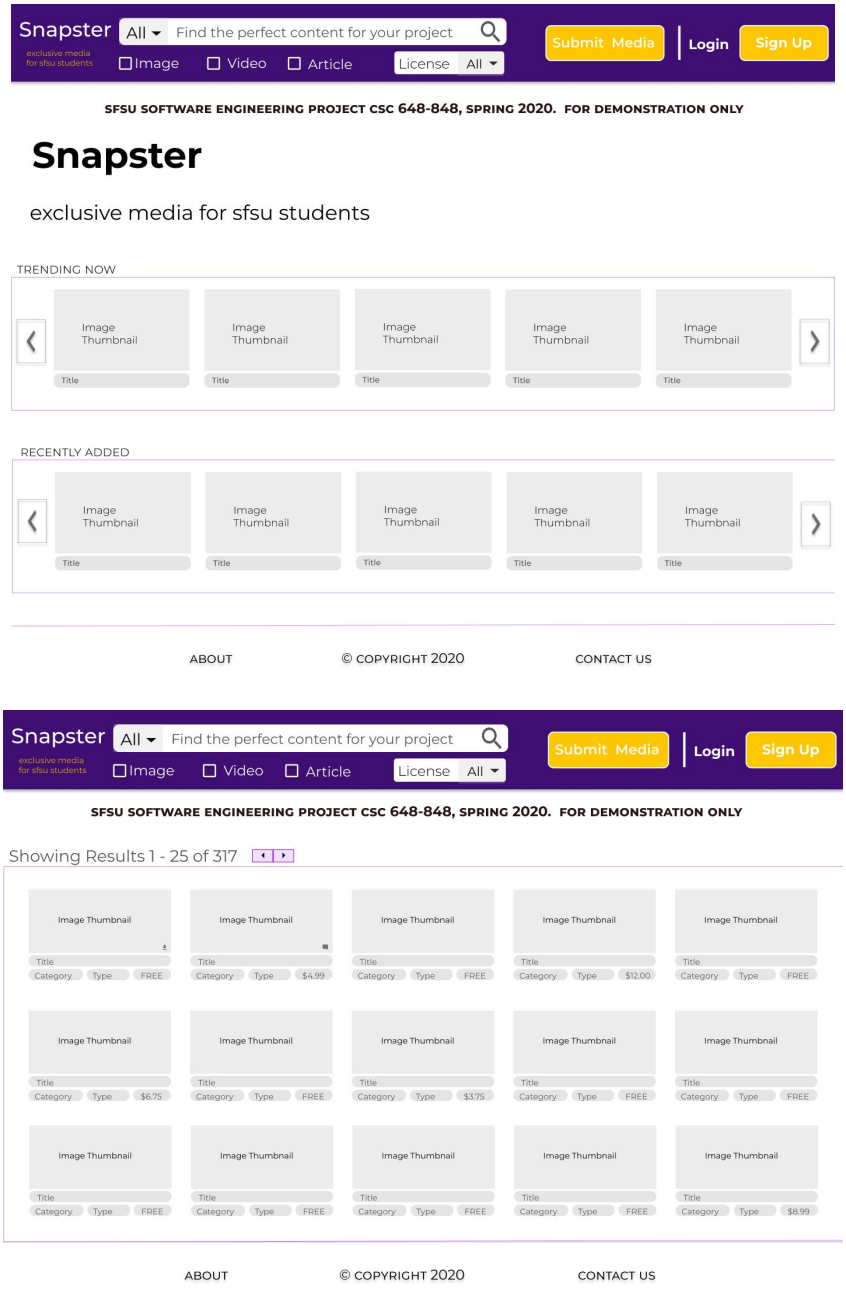
6. **Messaging**
   6.1. Message is the only way that users and buyers can connect with each other.

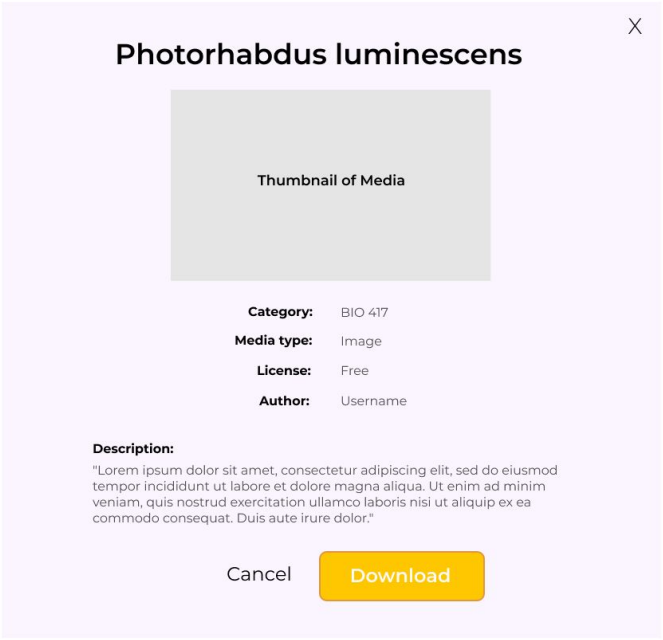
   6.2. At the very beginning of the message, there will be a little notification shown to both users that do not share their information with each other.

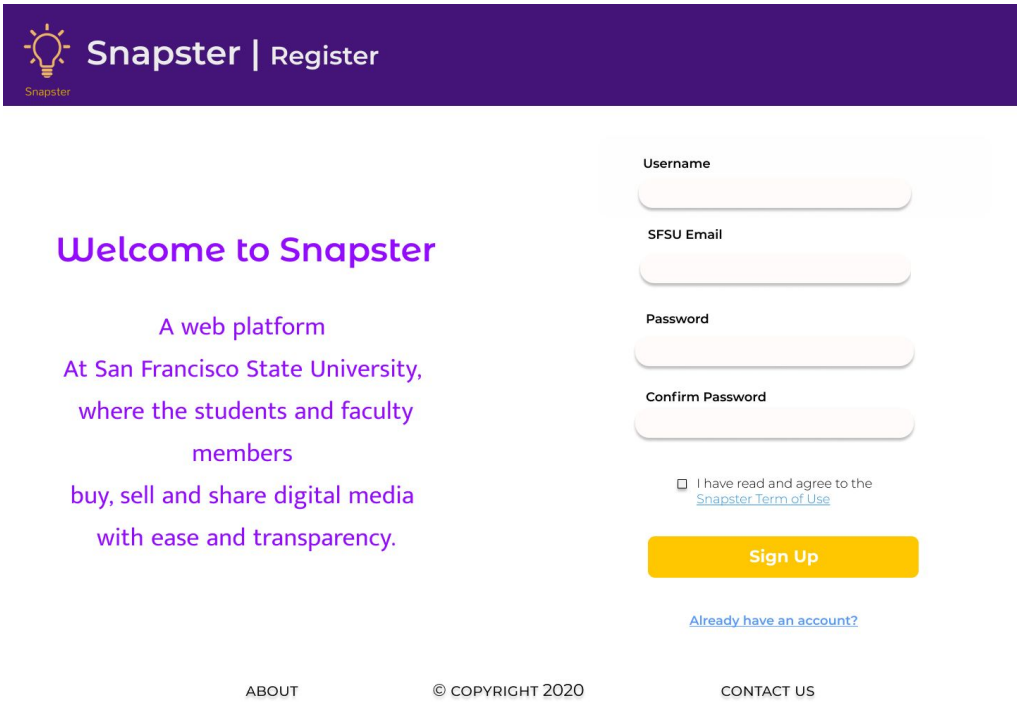
6.3. Messages must contain information about the Digital Media to be purchased, user information who wishes to buy and user entered text.

3. UI Mockups and Storyboards

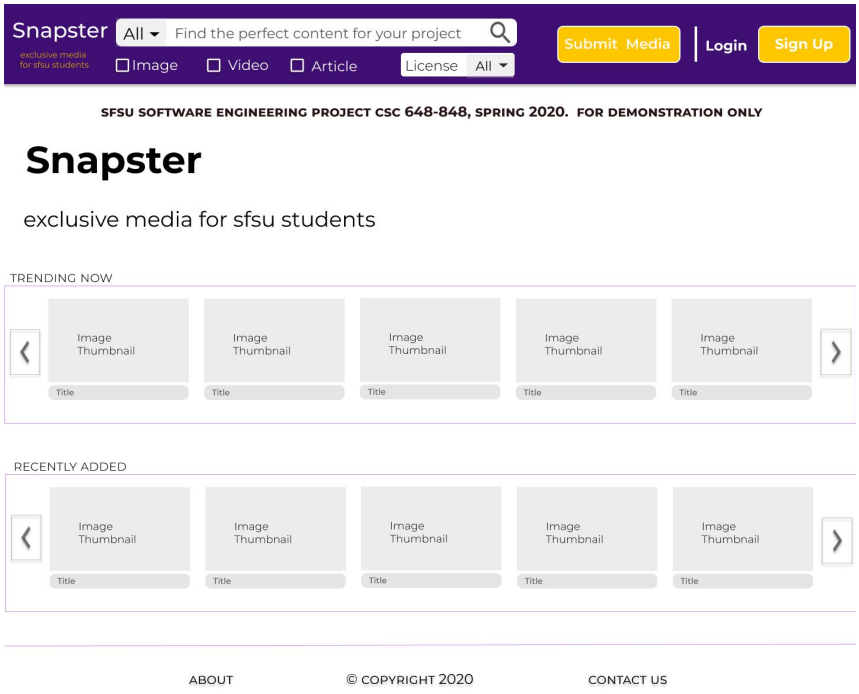
Vanessa visits our site and browses for images of cells. She is able to quickly locate suitable and free images perfect for her project. She finds ones she likes, and views the details in a pop-up screen. After quickly filling out the required registration form, she is able to download the free full resolution images.

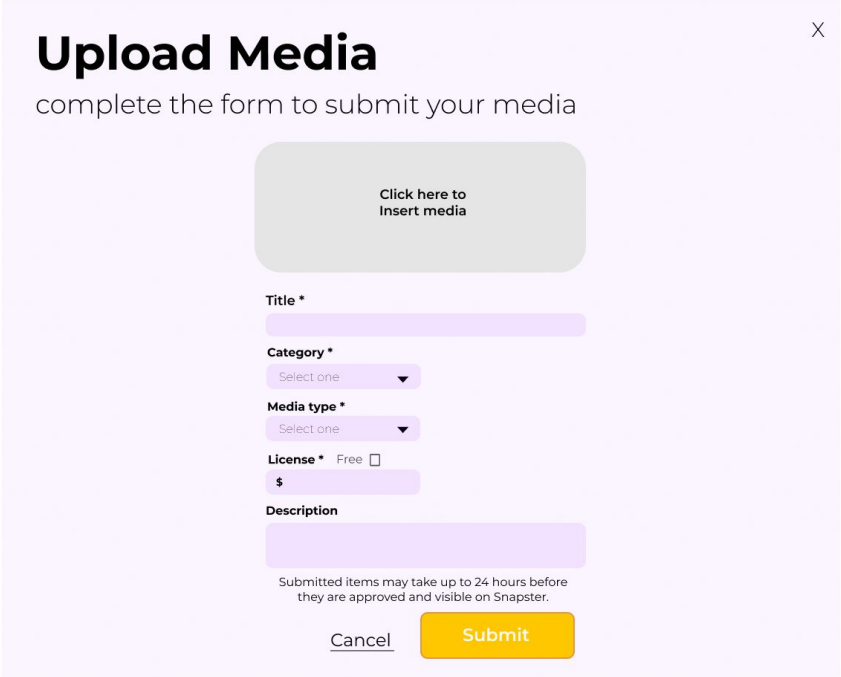


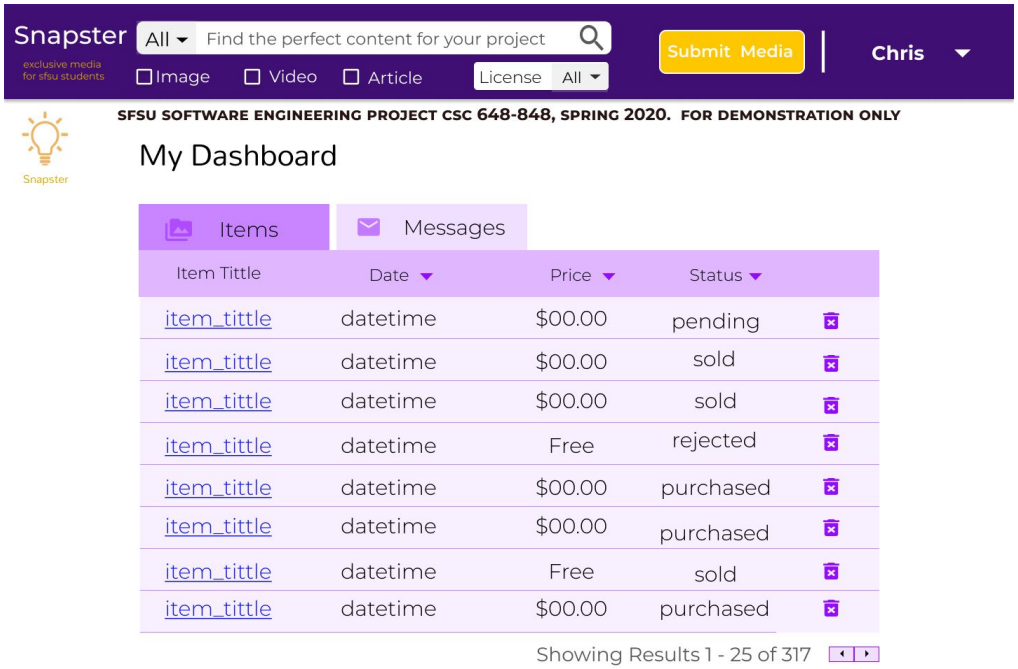

Photorhabdus luminescens
Thumbnail of Media
Category: BIO 417
Media type: Image
License: Free
Author: Username
Description:
"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor."
Cancel
Download


Snapster | Register
Snapster
Welcome to Snapster
A web platform
At San Francisco State University,
where the students and faculty members
buy, sell and share digital media
with ease and transparency.
Username
SFSU Email
Password
Confirm Password
I have read and agree to the Snapster Term of Use
Sign Up
Already have an account?
ABOUT
© COPYRIGHT 2020
CONTACT US

Chris visits the site and clicks a link to upload his content. He uploads his work and fills out a pop-up form describing his content and sets a price. Before he can post his work, Chris is prompted to either login or register an account. He fills out the brief registration form and submits his post. He is taken to his dashboard where he can see his post is pending administrator approval. From the dashboard, he is able to review any future items he may post to the site, as well as his items sold and messages he receives from potential buyers of his work.






Snapster
All
Find the perfect content for your project
exclusive media for sfsu students
Image
Video
Article
License
All
Submit Media
Chris
SFSU SOFTWARE ENGINEERING PROJECT CSC 648-848, SPRING 2020. FOR DEMONSTRATION ONLY
Snapster
My Dashboard
Items
Messages
Item Tittle
Date
Price
Status
item_tittle datetime $00.00 pending
item_tittle datetime $00.00 sold
item_tittle datetime $00.00 sold
item_tittle datetime Free rejected
item_tittle datetime $00.00 purchased
item_tittle datetime $00.00 purchased
item_tittle datetime Free sold
item_tittle datetime $00.00 purchased
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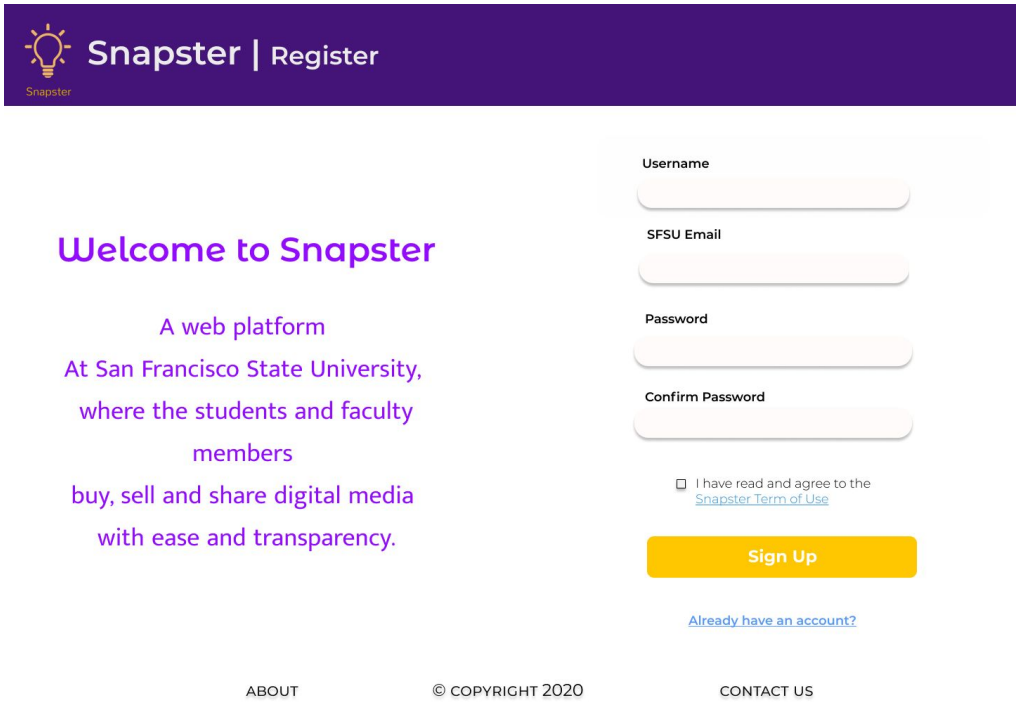
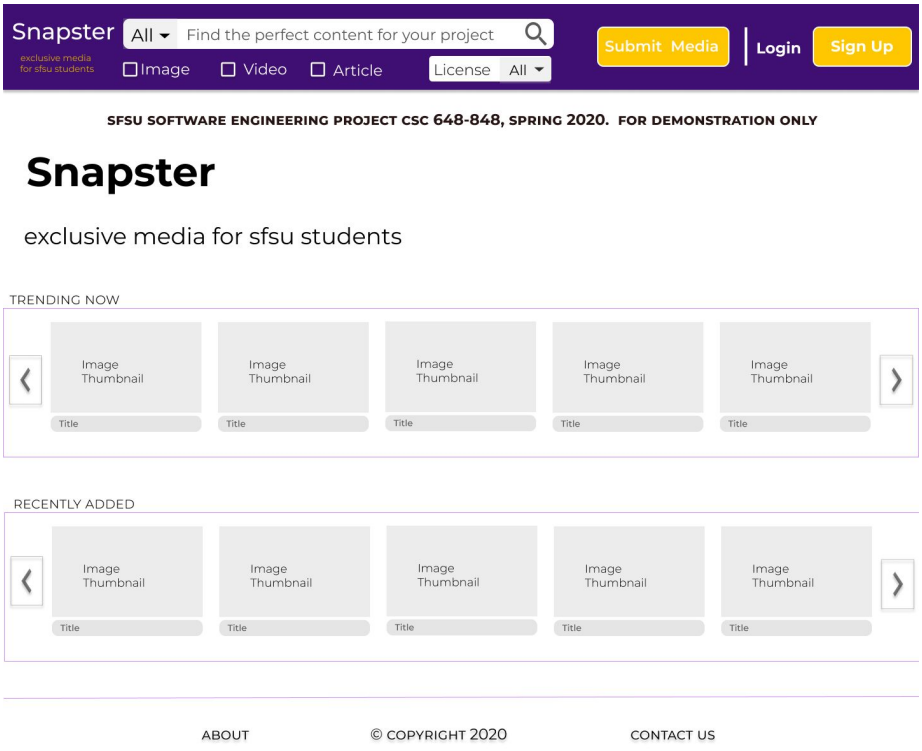
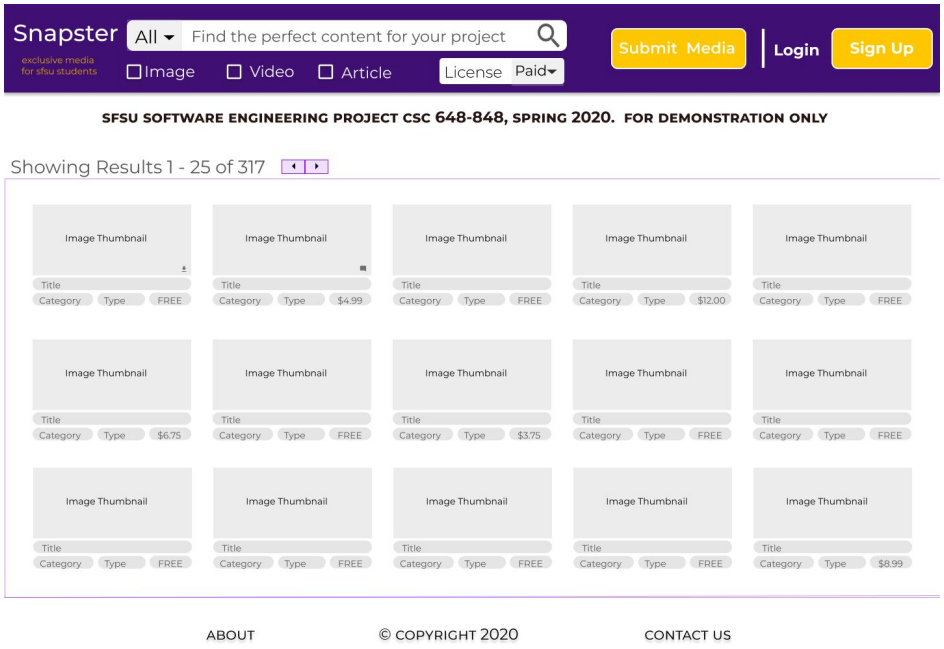
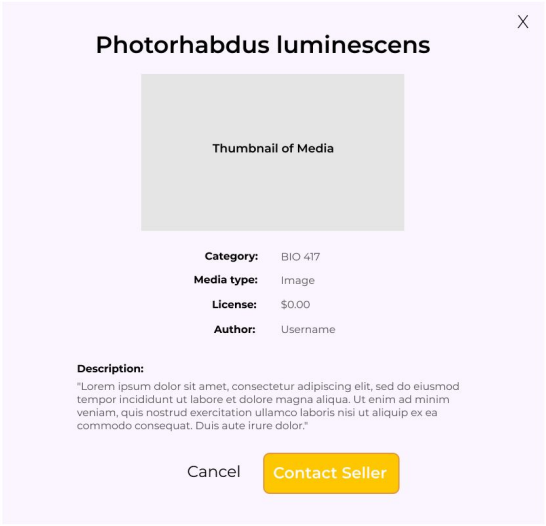
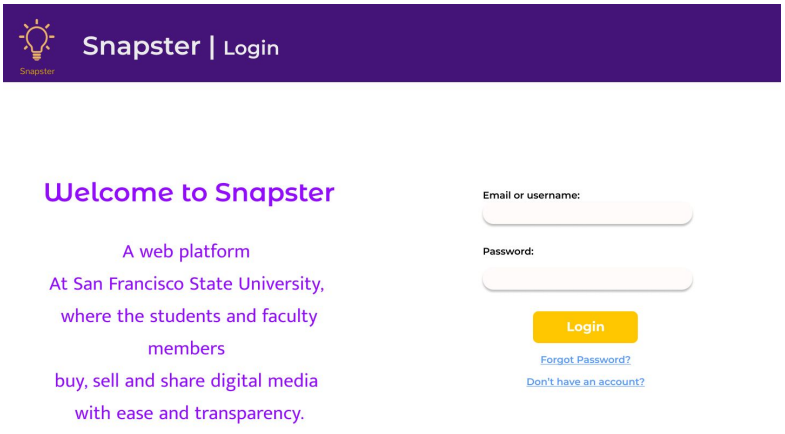

Snapster | Register
Snapster
Welcome to Snapster
A web platform
At San Francisco State University,
where the students and faculty
members
buy, sell and share digital media
with ease and transparency.
Username
SFSU Email
Password
Confirm Password
I have read and agree to the
Snapster Term of Use
Sign Up
Already have an account?
ABOUT
© COPYRIGHT 2020
CONTACT US

Tina visits our site and browses the images by category, filters the search to show only the paid content. She finds an image she really likes, and after logging into the site sends a short message to the content creator expressing her interest in the image. The creator, who is also a registered user, logs in. and promptly responds and Tina sees the reply in her messages tab. They arrange for payment through Paypal. Tina is granted access to the full resolution image and is able to download it from her dashboard.






Photorhabdus luminescens
Thumbnail of Media
Category: BIO 417
Media type: Image
License: $0.00
Author: Username
Description:
"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor."
Cancel
Contact Seller


Snapster | Login
Snapster
Welcome to Snapster
A web platform
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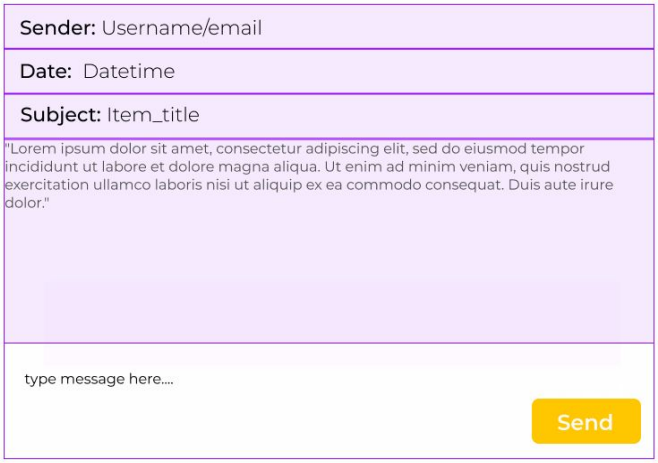
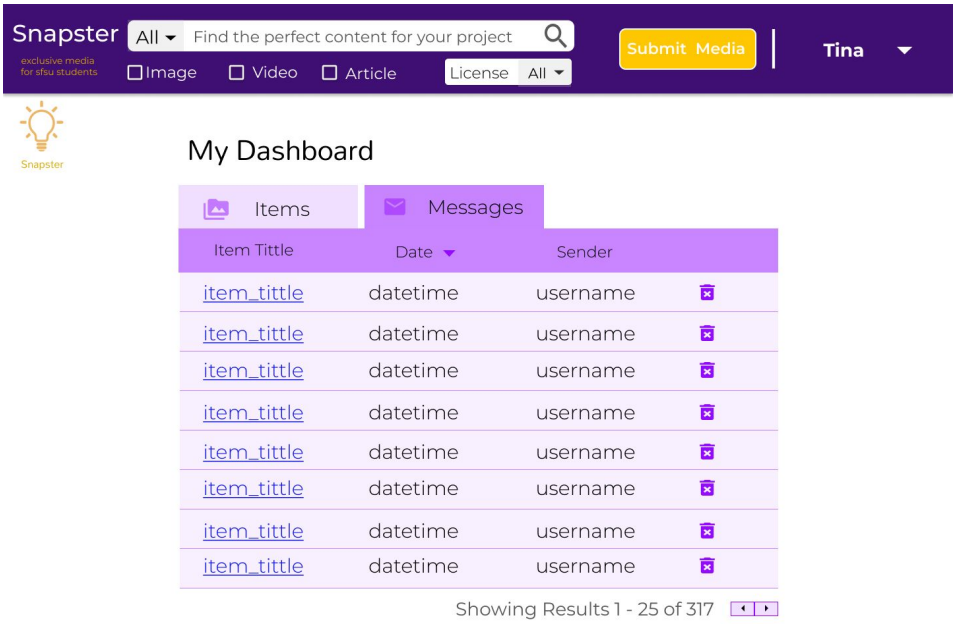
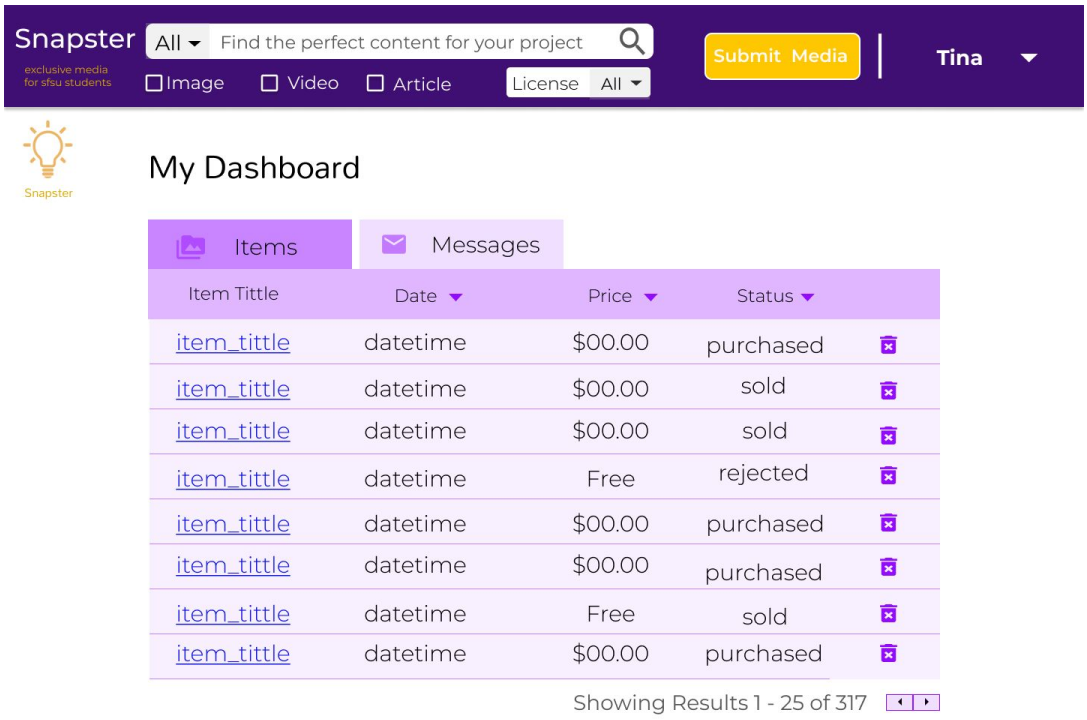
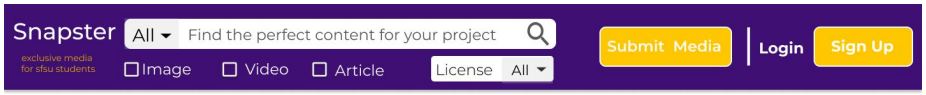
where the students and faculty
members
buy, sell and share digital media
with ease and transparency.
Email or username:
Password:
Login
Forgot Password?
Don't have an account?


Sender: Username/email
Date: Datetime
Subject: Item_title
"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor."
type message here....
Send





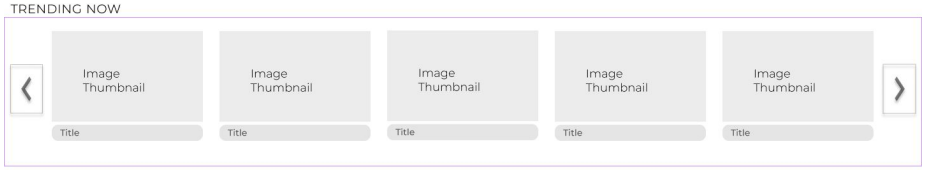
From the home page, **Johanne** (Admin) goes to the login screen and logs into the system through her administrator account. She examines the recent posts through her dashboard, and she sees a list of pending items posted by users the night before. She begins reviewing the posted content, making sure each post is appropriate for the site, and performs a sanity check on the labels provided by the users. Most of the posted items are acceptable and she approves them for the site. There is however one questionable post. She rejects the item and looks into the user's profile who posted the item. It seems this user has a history of posting questionable content. Johanne decides to ban the account.



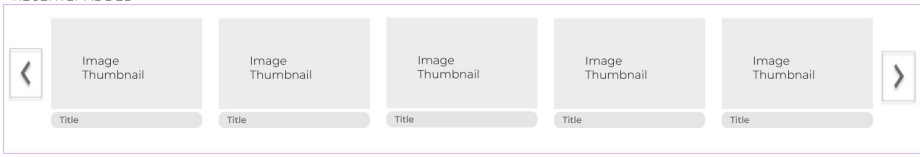
Snapster

exclusive media for sfsu students

TRENDING NOW



RECENTLY ADDED



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Welcome to Snapster

A web platform
At San Francisco State University,
where the students and faculty
members
buy, sell and share digital media
with ease and transparency.

Email or username:

Password:

Login

Forgot Password?

Don't have an account?

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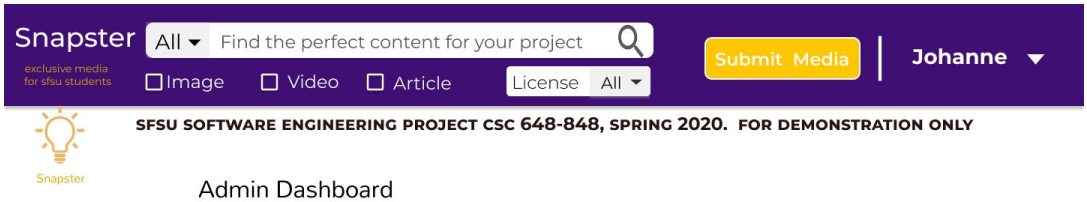

Admin Dashboard

Users | Posts | Pending

media_id	Date Reviewed	Status
item_id	datetime	approved
item_id	datetime	rejected
item_id	datetime	approved
item_id	datetime	approved
item_id	datetime	approved
item_id	datetime	approved
item_id	datetime	rejected
item_id	datetime	approved

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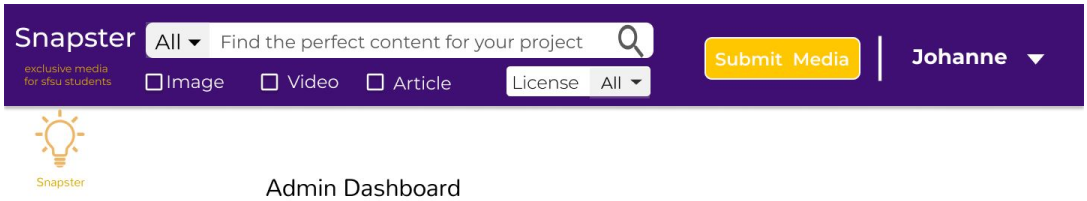

Admin Dashboard

Users | Posts | Pending

media_id	Date Requested
item_id	datetime
item_id	datetime
item_id	datetime
item_id	datetime
item_id	datetime
item_id	datetime
item_id	datetime
item_id	datetime

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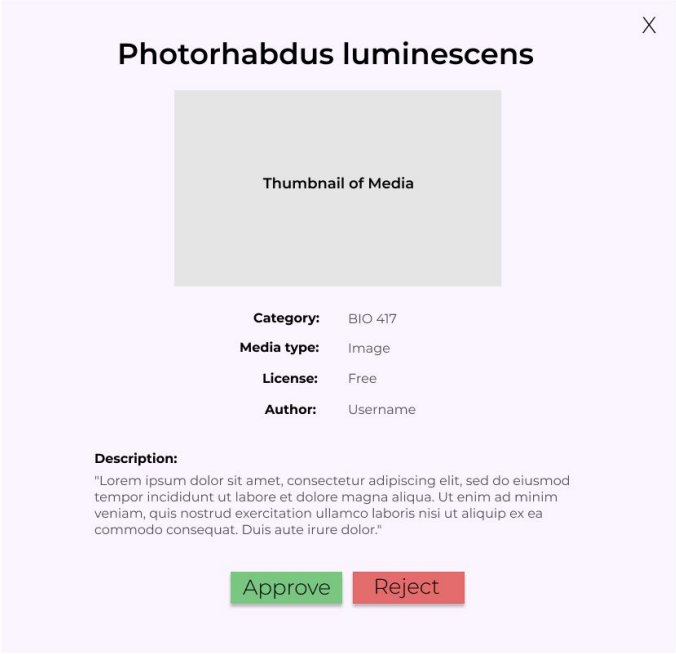
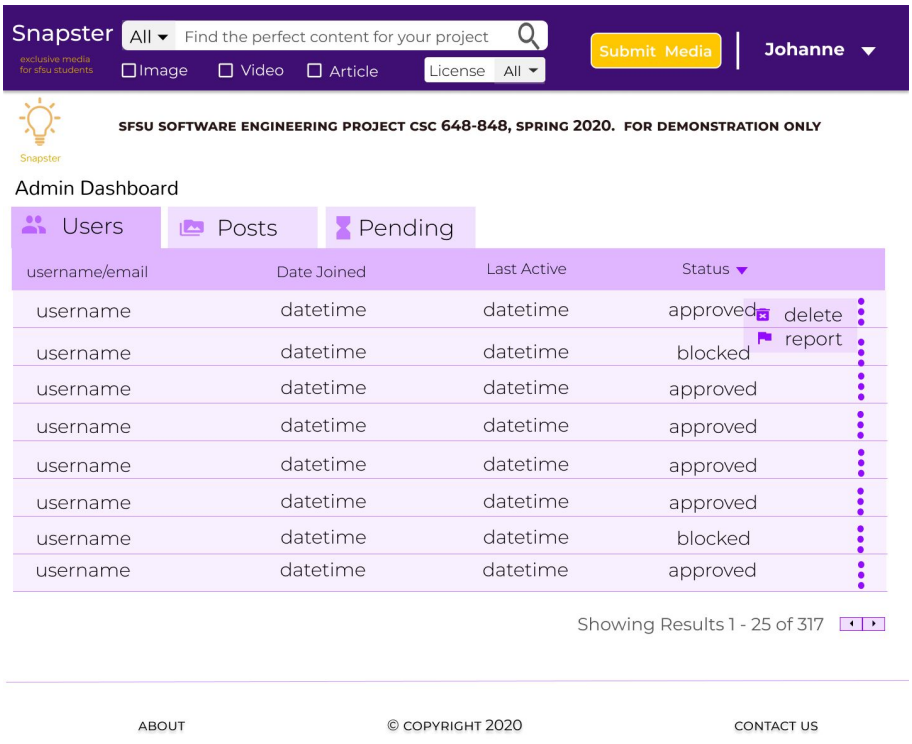

X
Photorhabdus luminescens
Thumbnail of Media
Category: BIO 417
Media type: Image
License: Free
Author: Username
Description:
"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor."
Approve
Reject


Snapster
exclusive media for sfsu students
All
Find the perfect content for your project
Image
Video
Article
License All
Submit Media
Johanne
Snapster
SFSU SOFTWARE ENGINEERING PROJECT CSC 648-848, SPRING 2020. FOR DEMONSTRATION ONLY
Admin Dashboard
Users
Posts
Pending
username/email
Date Joined
Last Active
Status
username datetime datetime approved
delete
report
username datetime datetime blocked
username datetime datetime approved
username datetime datetime approved
username datetime datetime approved
username datetime datetime approved
username datetime datetime blocked
username datetime datetime approved
Showing Results 1 - 25 of 317
ABOUT
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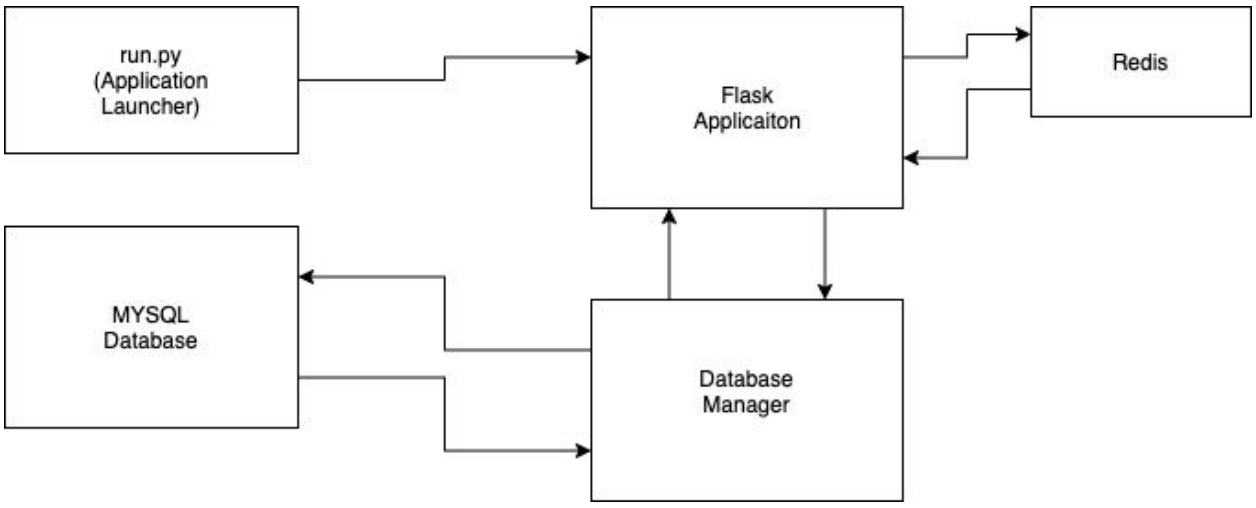
4. NEW High level Architecture, Database Organization



DB organization:

Users:

- User_id (primary key)
- email
- Username
- Hash of password
- Profile_photo_path

Digital_media:

- Media_id (primary key)
- Name
- Description
- Price
- Category (foreign key)
- Relative path
- Approved (bool)
- Owner_id (foreign key)

Transactions:

- Trans_id (primary key)
- Buyer (user_id (foreign key))
- Seller (user_id (foreign key))
- Item (media_id (foreign key))

- Price
- TimeStamp of transaction

Log:

- Log_id (primary key)
- Account (user_id (foreign key))
- TimeStamp

Message:

- Msg_id (primary key)
- Sender (user_id (foreign key))
- Receiver (user_id (foreign key))
- Message
- TimeStamp

Category:

- Cat_id (primary key)
- category

Media storage:

Digital_media will be stored statically in a file system, relative file paths will be saved to the database.

Search/filter architecture and implementation:

DB search will be done using SQL %LIKE, and then the results will be filtered by category/sub-category

Our API's:

All interactions with the database will be done through a module called the database_manager. The Flask application will own an instance of this database_manager. The database_manager will own the connection and cursor to the MYSQL database. When a query is requested, the database_manager will have an API called by the flask routing function. That function will then handle the intricacies of communicating with the database such as queries, commits, and closing the connection.

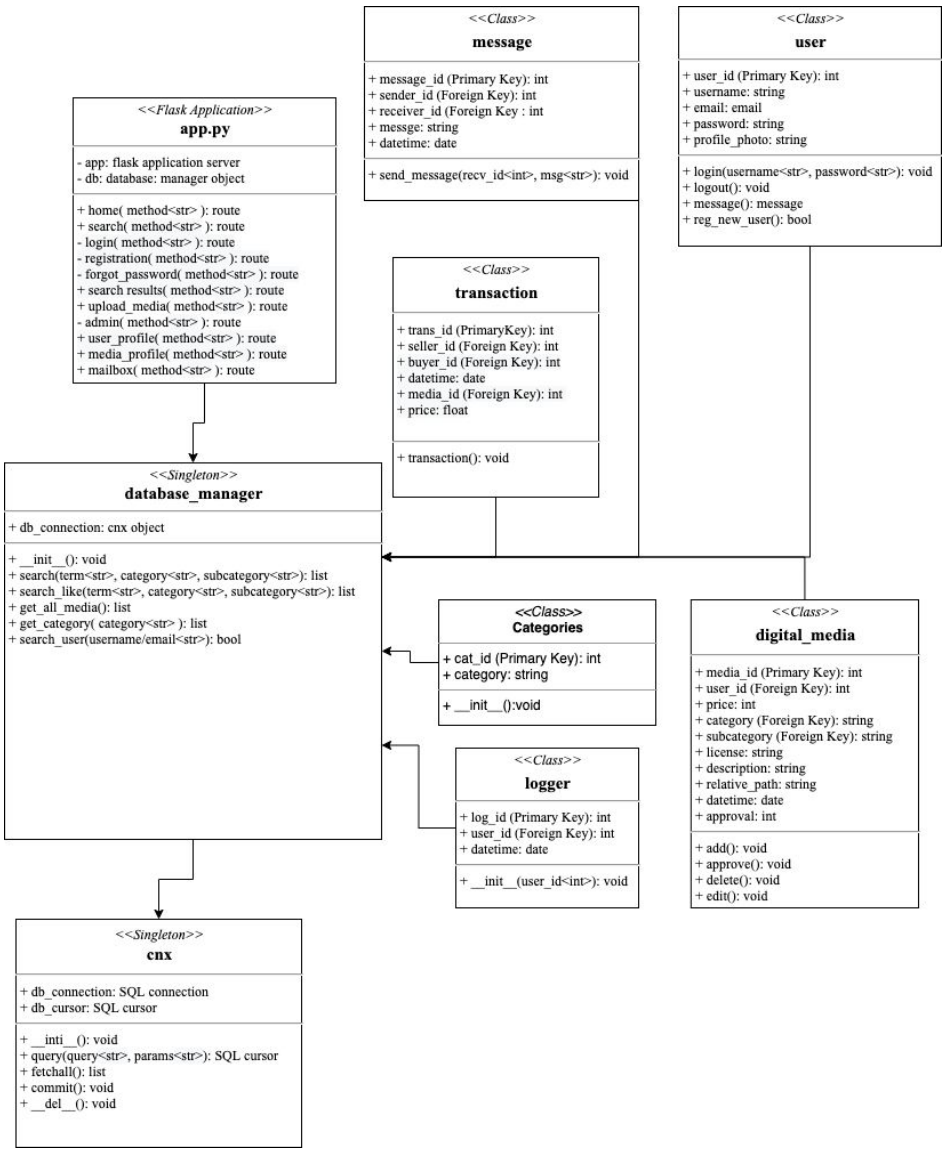
Significant algorithms:

We have plans to implement a transaction rating system that will allow purchasers of digital_media to rate the seller. However, this is not high on our list of priorities and details of this implementation are TBD.

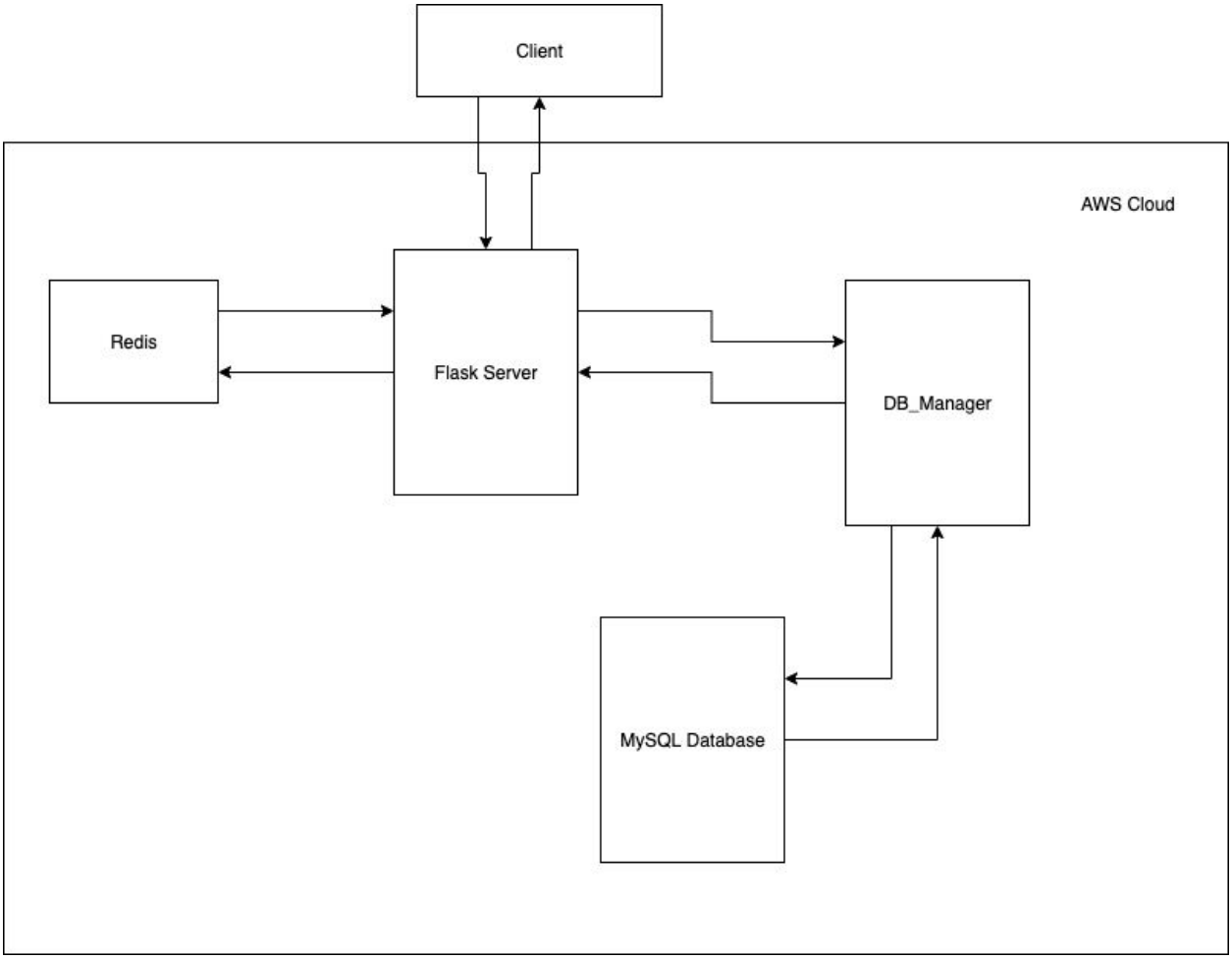
New frameworks or software tools:

We have decided to not use SQLAlchemy (an SQL ORM), instead we will use the standard python SQL connector library.

5. NEW High Level UML Diagrams



UML Component and deployment diagrams



6. Risk Identification and Analysis.

Actual key risks for our project at this time	
Skills risks	Low Probability
Schedule risks	High Probability
Technical risks	Low Probability
Teamwork risks	Low Probability
Legal/content risks	High Probability

All projects have risks. In our company we identify the risk categories during our project.

Risk Category: Schedule

1. Current COVID-19 pandemic made the San Francisco State University faculty and students move to online class meeting sessions that delayed the productivity of team members since everyone is adjusting to the current situation.
2. COVID-19 might cause a force-majeure situation that might delay not only our project, but the whole economic and political situation in the country.
3. Team members will be working from home thus it might be not as efficient as working in person.

Solution: Each team member is doing their best to adapt to the new situation and attend all the scheduled online meetings with the team and report the work progress. Based on the schedule priorities change on the existing program.

Risk Category: Legal/content Risks

1. Verifying the origin of the works of the author or copyright holder.

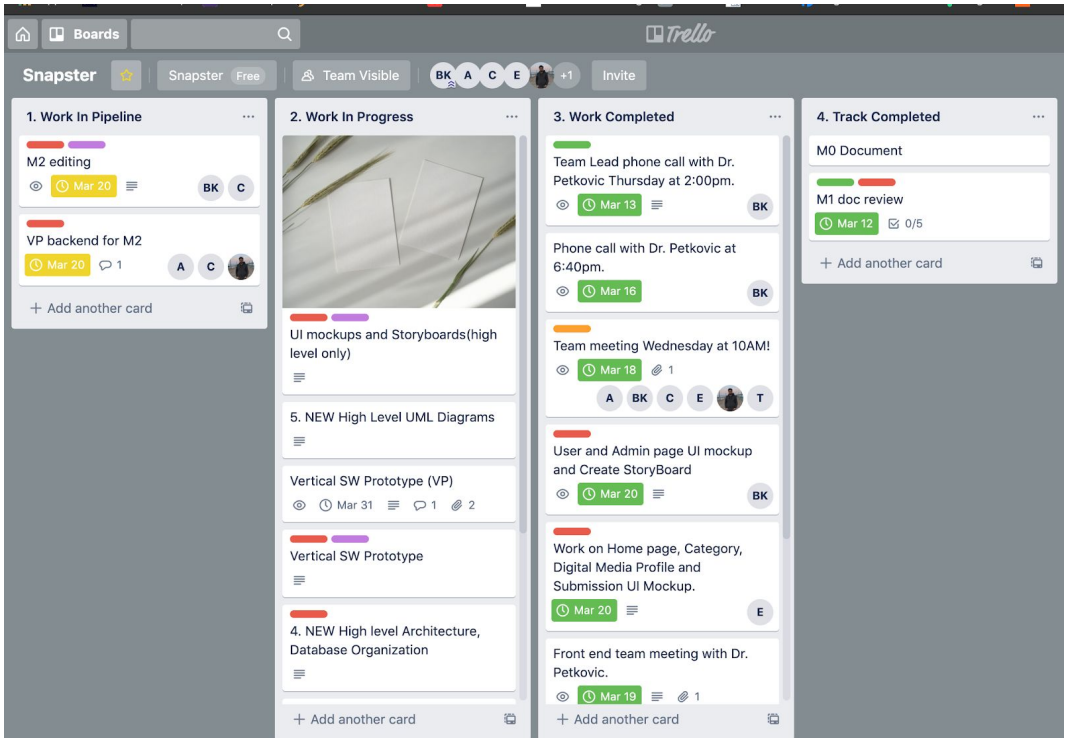
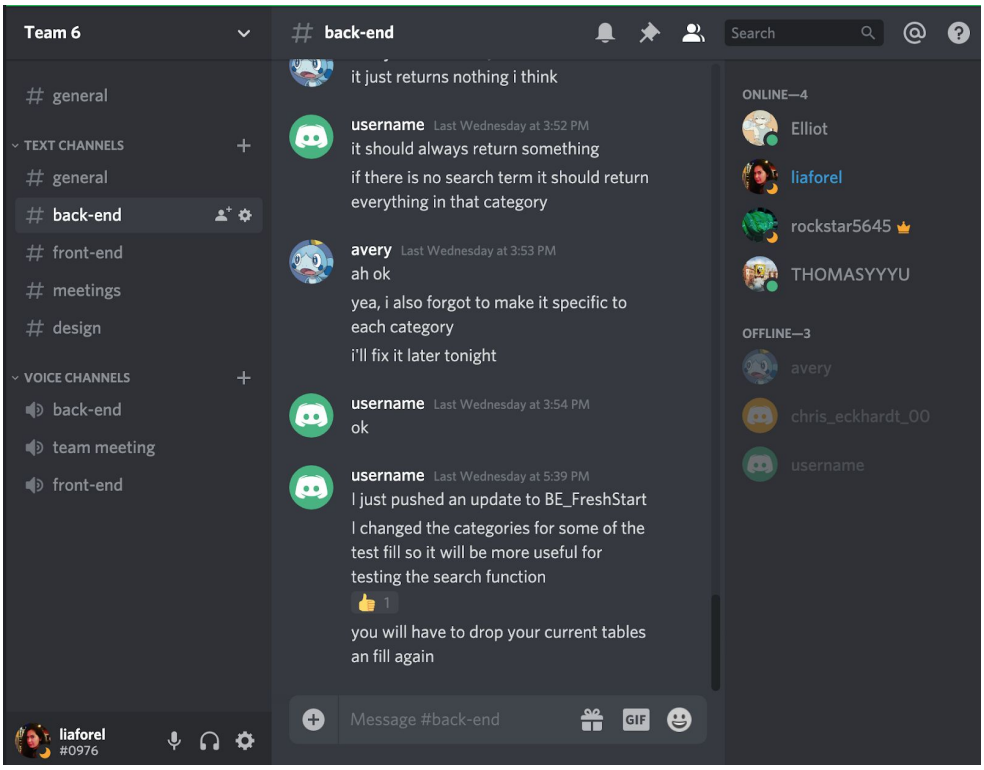
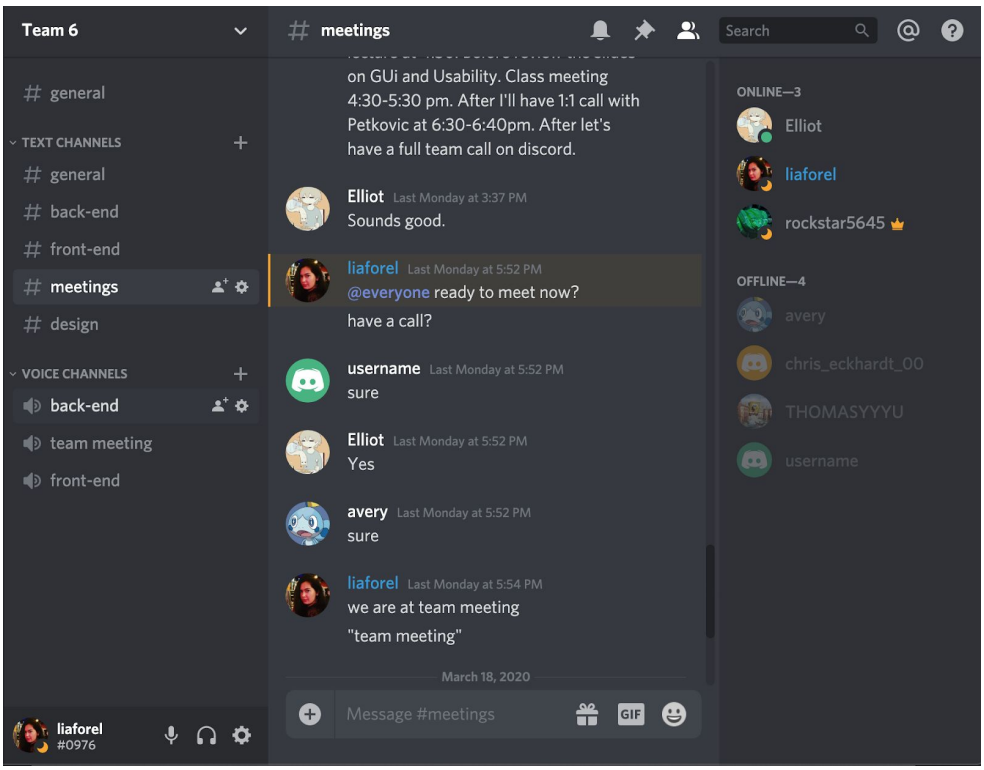
   Solution: Implement a written procedure on obtaining copyright permissions and keep the records of agreement between Snapster and copyright/license holder and keep them updated.

7. Project management

In order to operate more efficiently, we created two sub-teams; the front-end, and back-end team. Both teams operate independently while also agreeing on common interfaces that makes the team more efficient to launch the product. Every team member is assigned individual tasks and will report his or her progress during team meeting sessions.

Front-End Team	Back-End Team
Elliot Yardley	Christopher Eckhardt
Thomas Yu	Akhil Gandu
Bakulia Kurmant	Avery Chen

Our team is using the **Trello** software application for task management and tracking the development of our project where each team member is assigned tasks.



We are using the **Discord** VOIP application for text, voice, and video communications. Each team member has been accessible and present at all of the team meetings. The following screenshot is an example of our back-end team's communication using this platform.