SWAMP

SW Engineering CSC648/848 Spring 2020

TEAM 04 Global - Milestone 02

March 19, 2020

Team Lead: Benjamin Lewis - email:
benjaminlewis984@gmail.com
Git Master: Weerachai Poorakkiat
Front-End Lead: Dang Le
Back-End Lead: William Lew
Front-End Dev: Onubulachi-Abigail Wami
Back-End Dev: Kevin Huynh

Milestone 1

Submitted - 03/05/2020

Revised - 03/12/2020

1. Functional Requirements

-Priority 1-

1. Unregistered users **shall**:
    I. Be able to register
    II. Be able to browse site content
2. Registered users **shall**:
    I. Be able to remove listing
    II. Be able to post media for sale
    III. Be able to logout
    IV. Be able to login
    V. Be able to message media seller
    VI. Be able to request to purchase
    VII. Be able to approve purchase request
    VIII. Be able to deny purchase request
3. Administrative users **shall**:
    I. Be able to login
    II. Be able to logout
    III. Be required to approve posting
    IV. Be able to delete posting
    V. Be required to view user reports
    VI. Be able to ban user
    VII. Be able to unban user

-Priority 2-

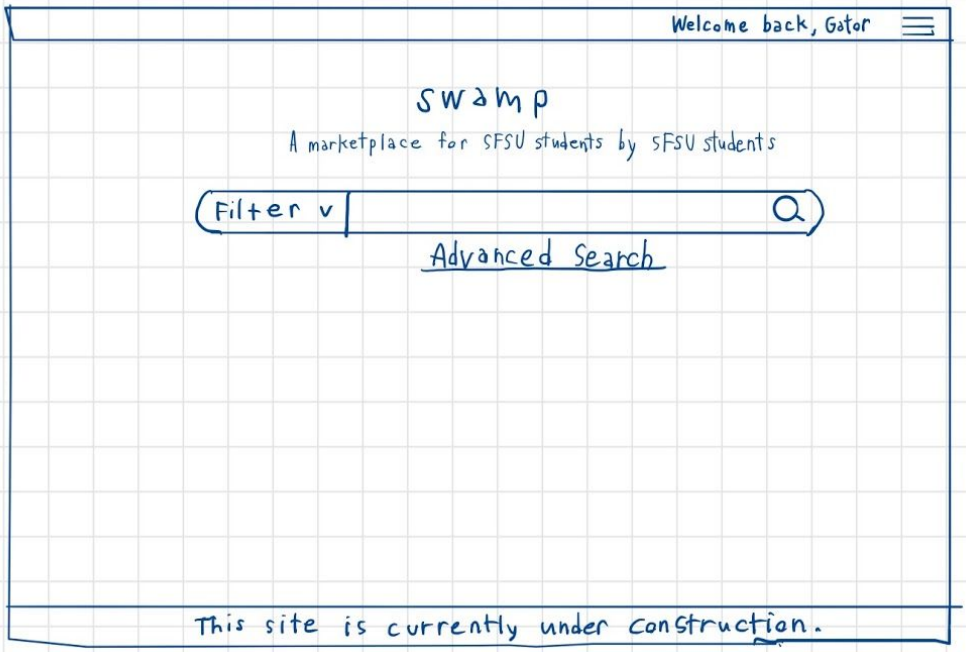
4. Unregistered users **shall**:
    I. Be able to search for Swamp data
    II. Be able to filter their searches
    III. Be able to add item to cart
5. Registered users **shall**:
    I. Be able to do everything unregistered user can except for being able to register
    II. Be able to edit password
    III. Be able to edit their own existing listing
    IV. Be able to view their own listings, requests, approvals
    V. Be able to report listing

2. Main data items and entities

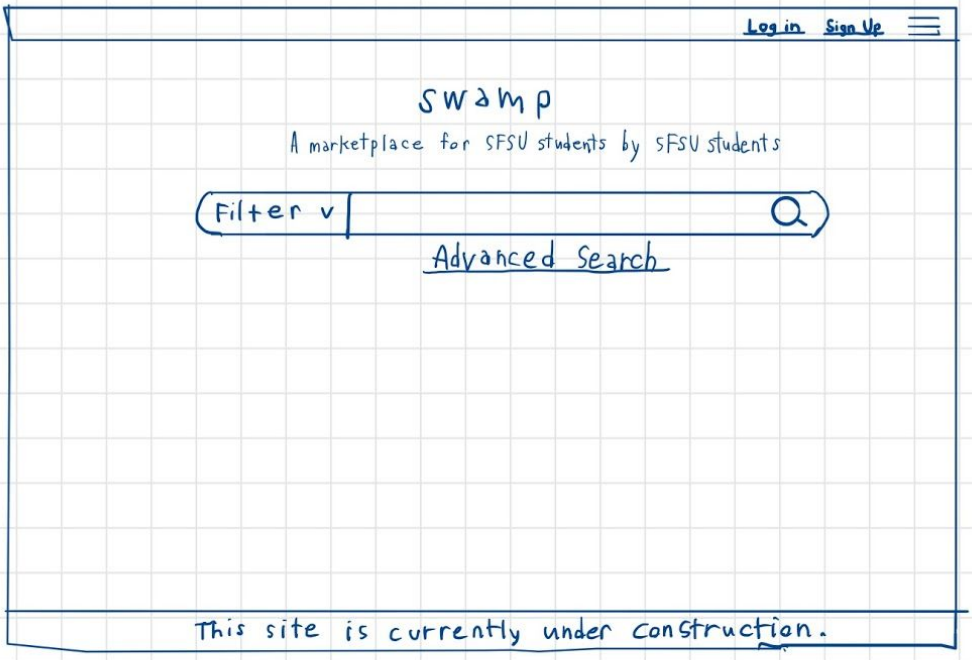
Registered user	Users that own account and are able to log in	Able to buy & sell products
Admin	Administrative account that acts as a filter for listings	Approve or reject listings to ensure appropriate marketplace; ban users
Unregistered user	Users that do not own an account and but are able to registar	Only able to browse all listings
Item listing	Listed item that can be an image, audio, video, or document file	Entity to be exchanged between users through the marketplace
Metadata	File name, size, type, author, item description, owner ID, category, price, licensing, pointer to raw media file, and date created	Used for keeping track of items as well as for filter/ searching purposes
Messaging	Users, upon checkout of listings, can message the owner in order to complete payment	Allows for ease of purchasing

3. UI Mockups and Storyboard

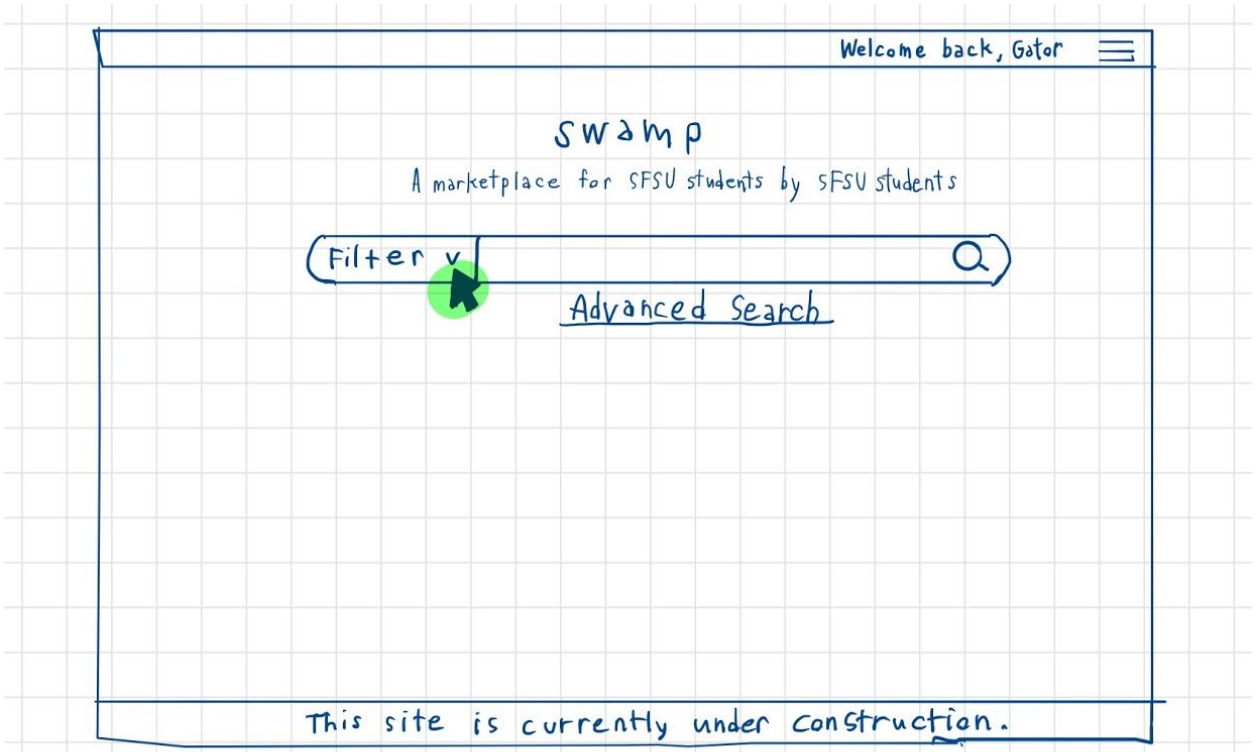
1a

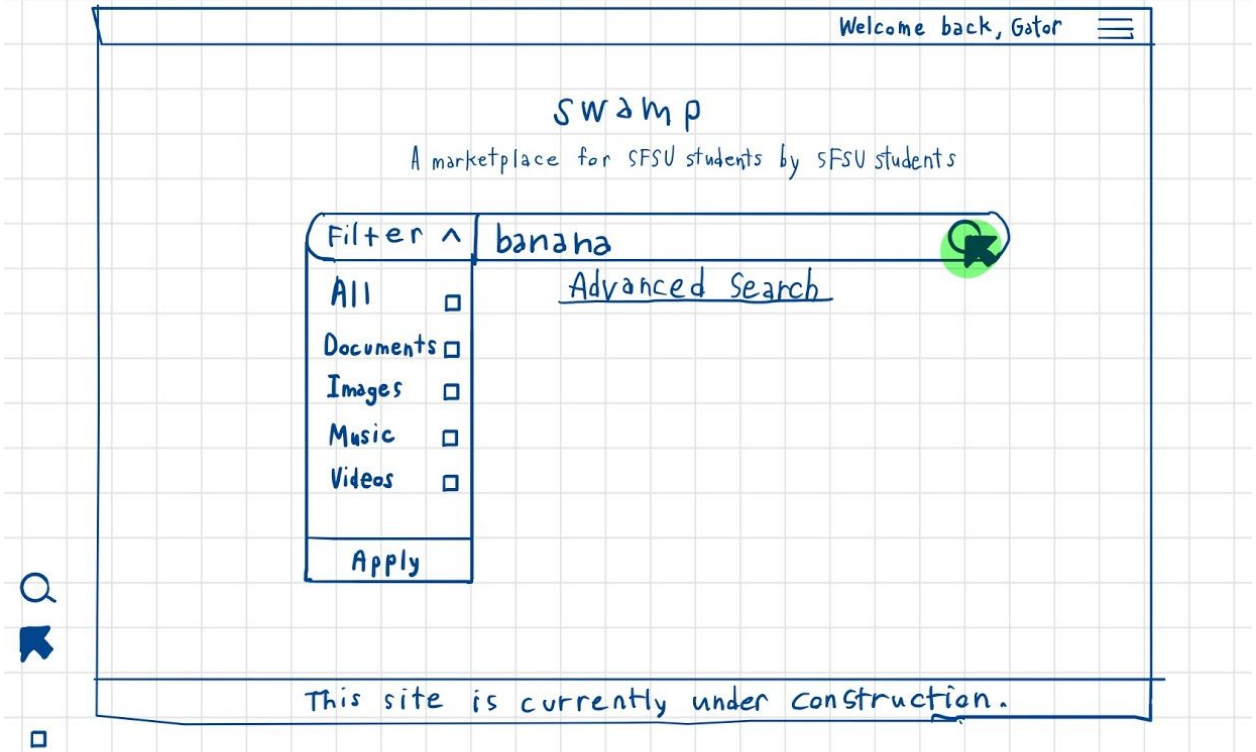


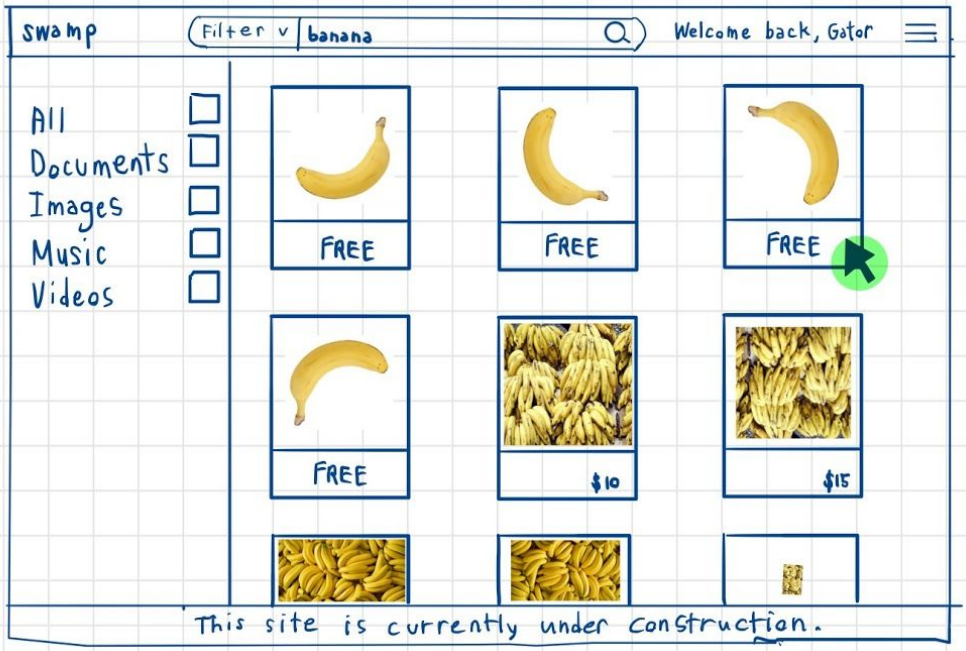
1b



1a. Homepage when logged in
1b. Homepage when logged out


Welcome back, Gator
swamp
A marketplace for SFSU students by SFSU students
Filter v
Advanced Search
This site is currently under construction.

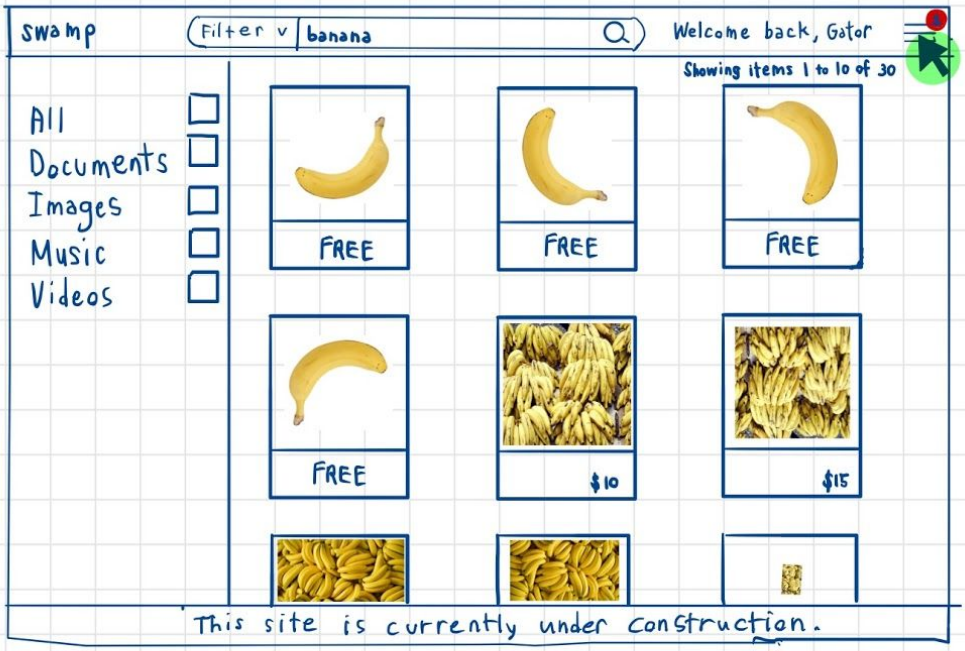

Welcome back, Gator
swamp
A marketplace for SFSU students by SFSU students
Filter ^
banana
Advanced Search
All
Documents
Images
Music
Videos
Apply
This site is currently under construction.

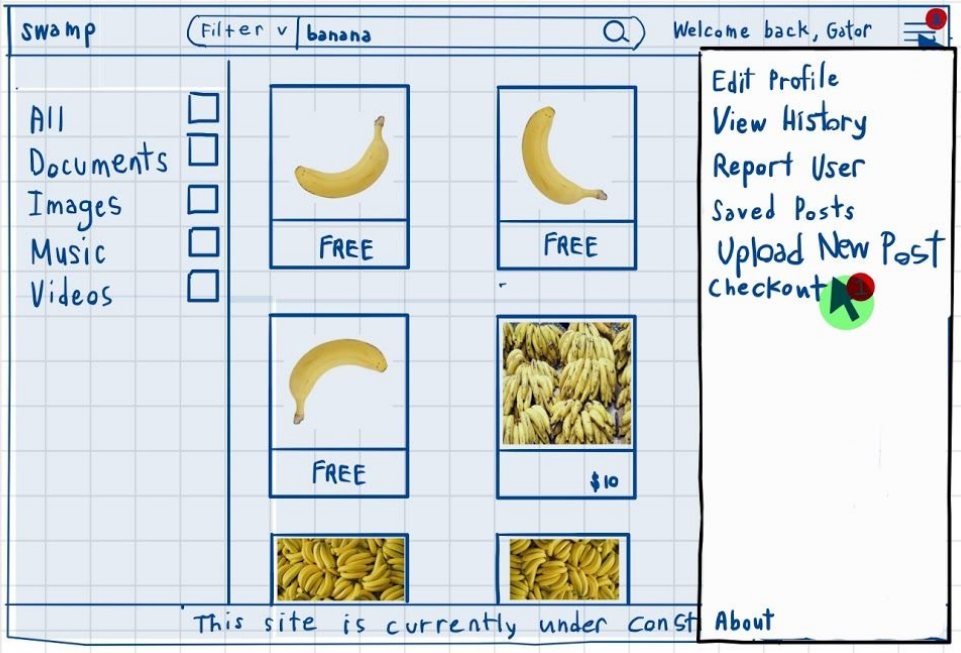


Flag

ge of a banana
stic soul

Save Add


swamp
Filter v
banana
Welcome back, Gator
Showing items 1 to 10 of 30
All
Documents
Images
Music
Videos
FREE
FREE
FREE
FREE
$10
$15
This site is currently under construction.


swamp
Filter v
banana
Welcome back, Gator
All
Documents
Images
Music
Videos
FREE
FREE
FREE
$10
Edit Profile
View History
Report User
Saved Posts
Upload New Post
Checkout
About
This site is currently under const

swamp

Checkout (1 item)

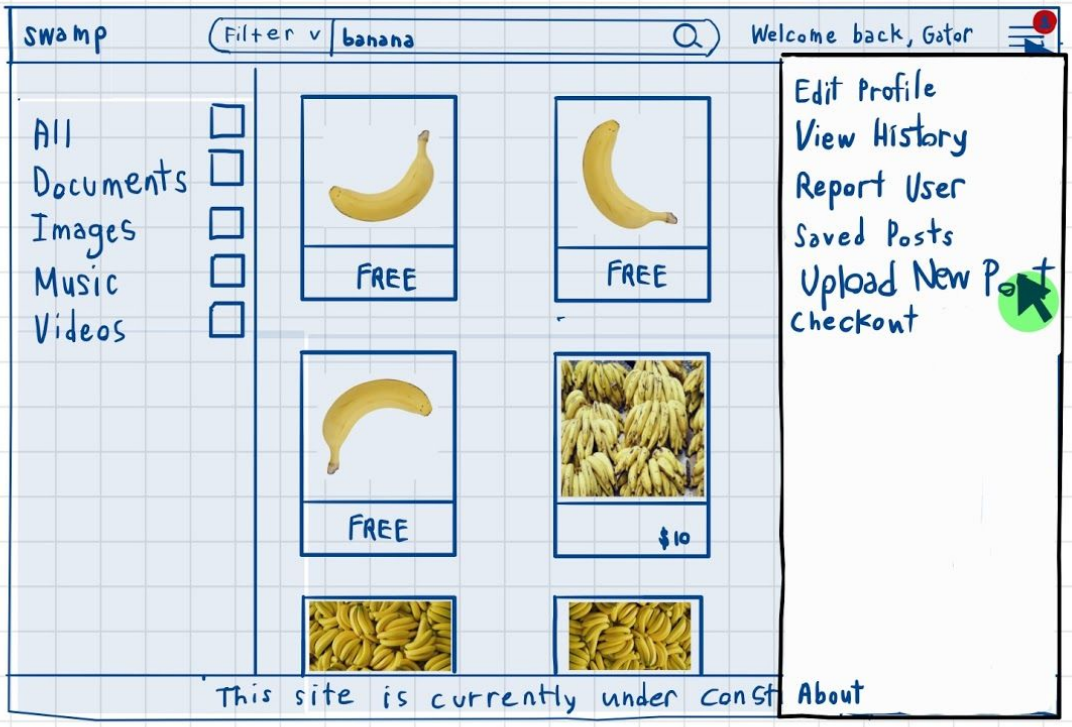
Review items

File: banana.jpeg
Description: An image of a banana to inspire your artistic soul

by gatorbay2020

Finish

This site is currently under construction.


swamp
Filter v
banana
Welcome back, Gator
All
Documents
Images
Music
Videos
FREE
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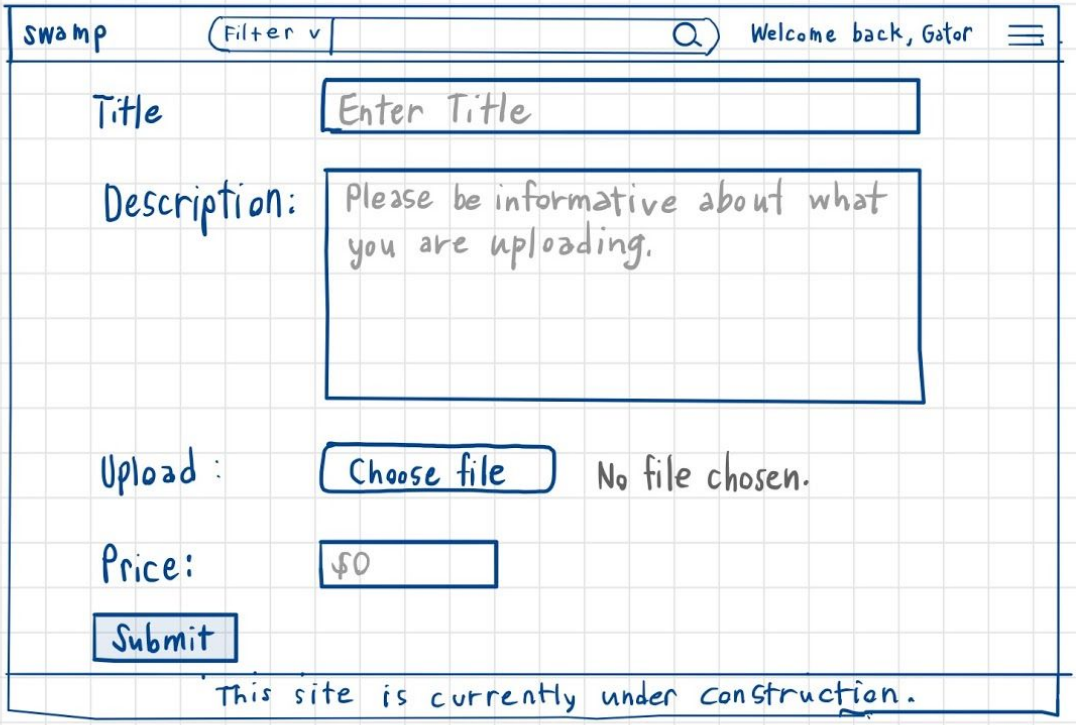
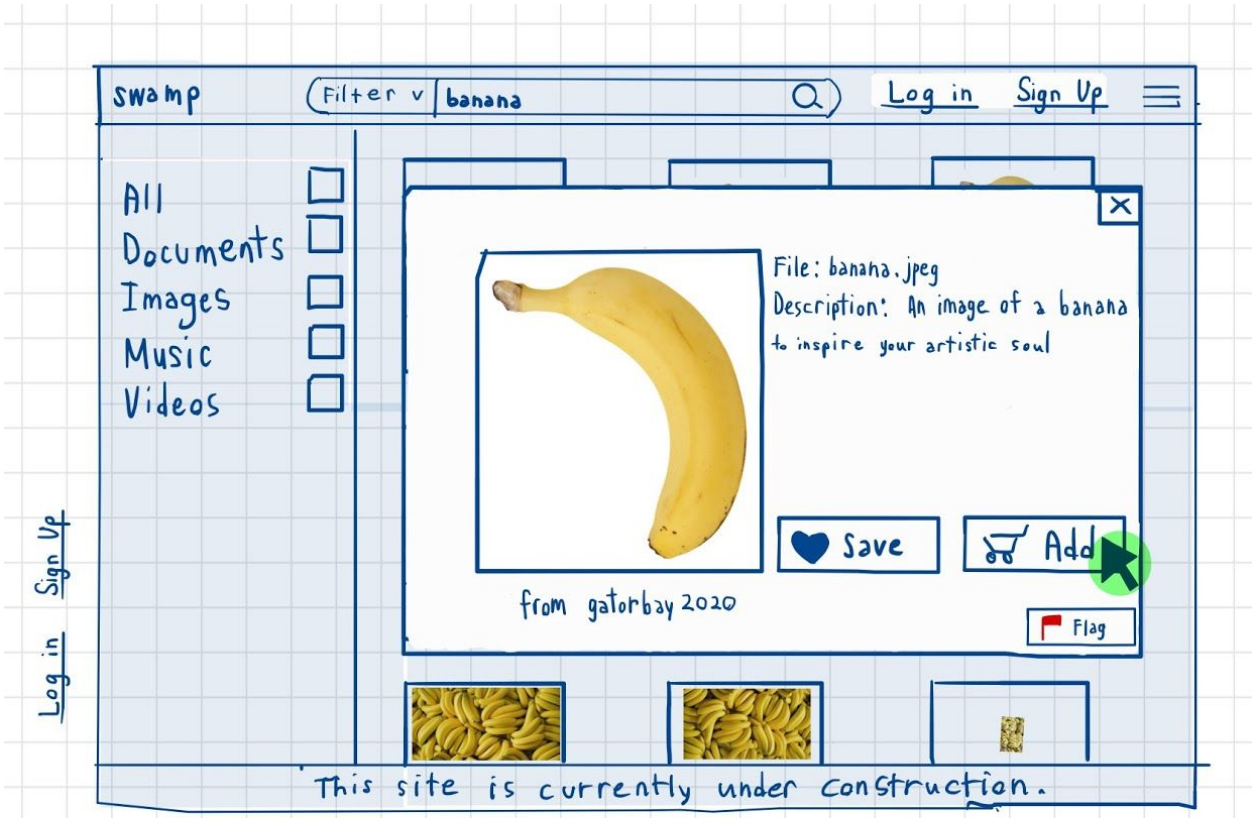
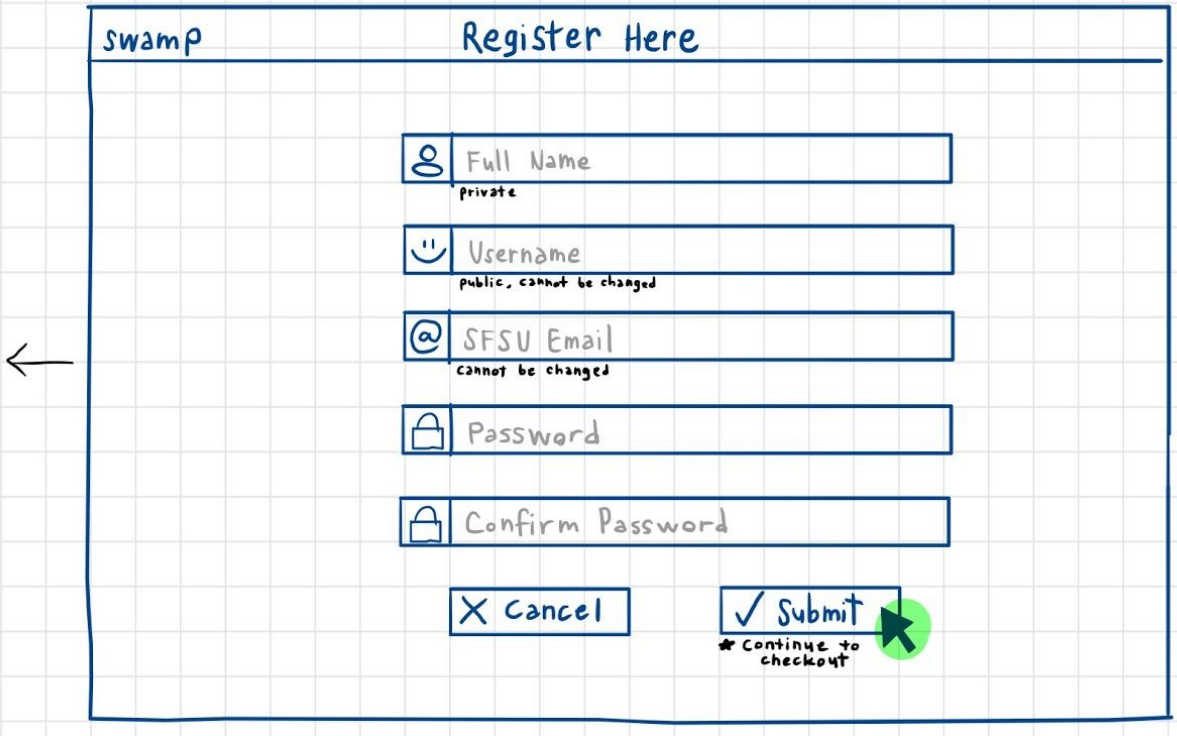
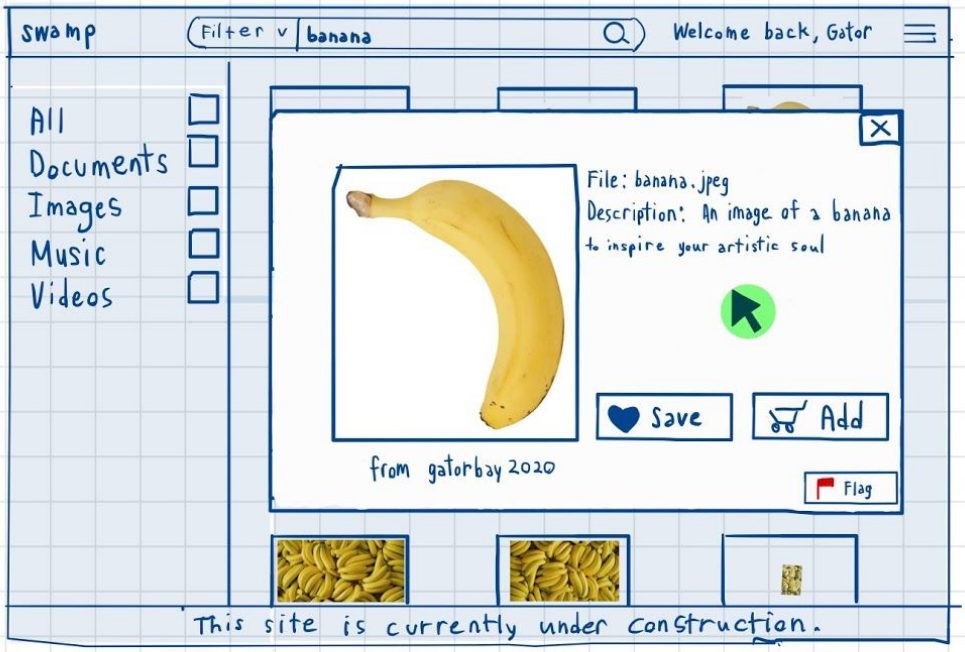
$10
Edit Profile
View History
Report User
Saved Posts
Upload New Post
Checkout
About
This site is currently under const

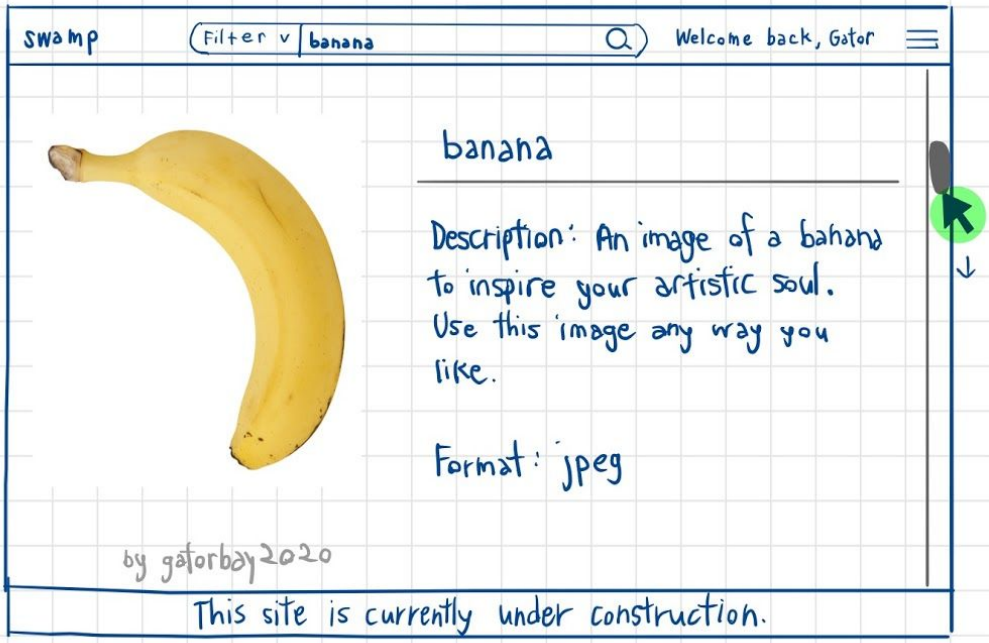

swamp
Filter v
Welcome back, Gator
Title
Enter Title
Description:
Please be informative about what you are uploading.
Upload :
Choose file
No file chosen.
Price:
$0
Submit
This site is currently under construction.


swamp
Filter
banana
Log in
Sign Up
All
Documents
Images
Music
Videos
File: banana.jpeg
Description: An image of a banana to inspire your artistic soul
Save
Add
from gatorbay 2020
Flag
Log in
Sign Up
This site is currently under construction.

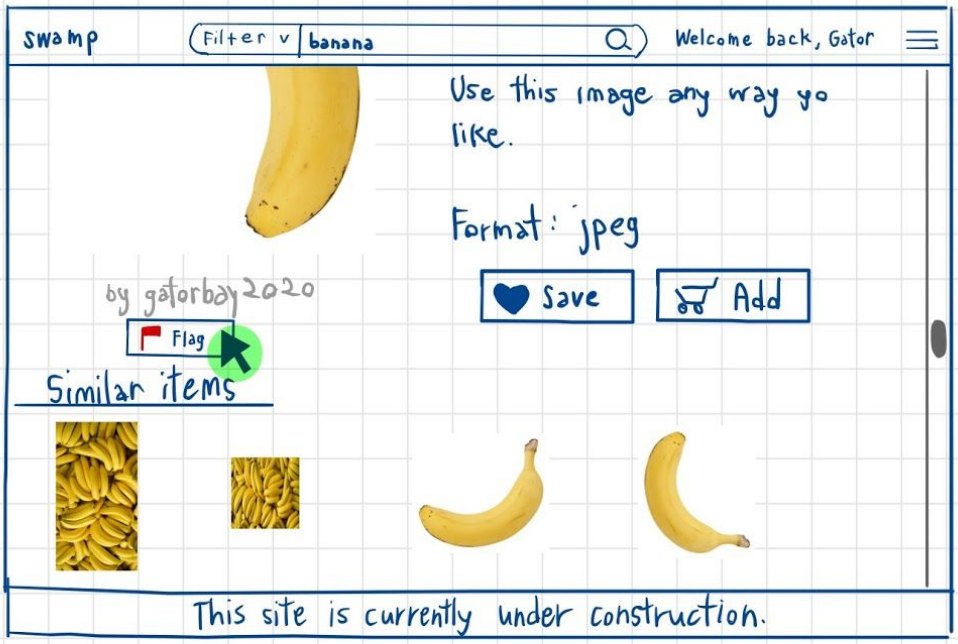

swamp
Register Here
Full Name
private
Username
public, cannot be changed
SFSU Email
cannot be changed
Password
Confirm Password
Cancel
Submit
* Continue to checkout

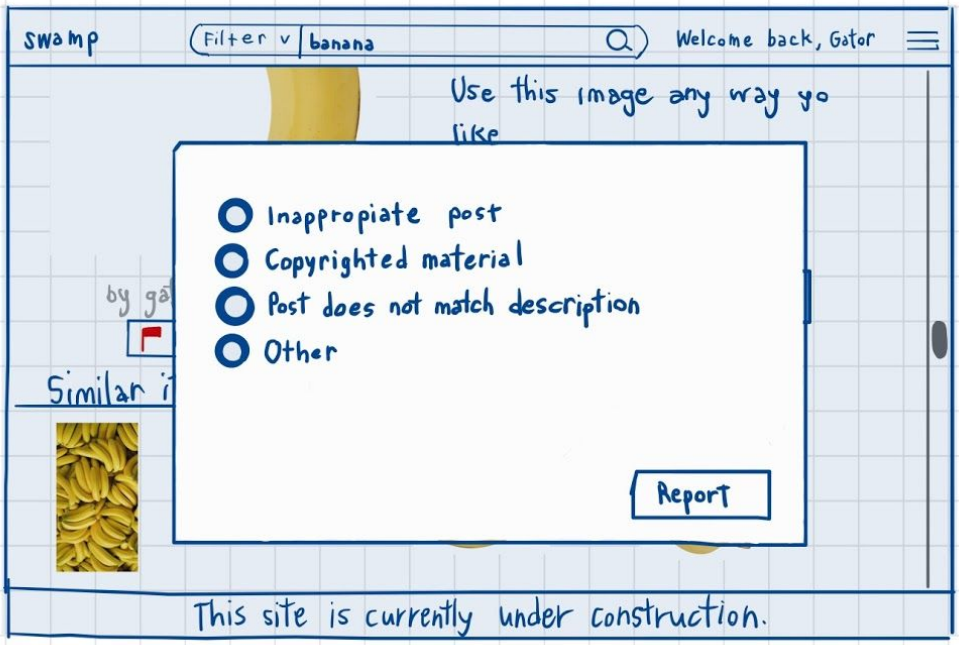
This site is currently under construction.



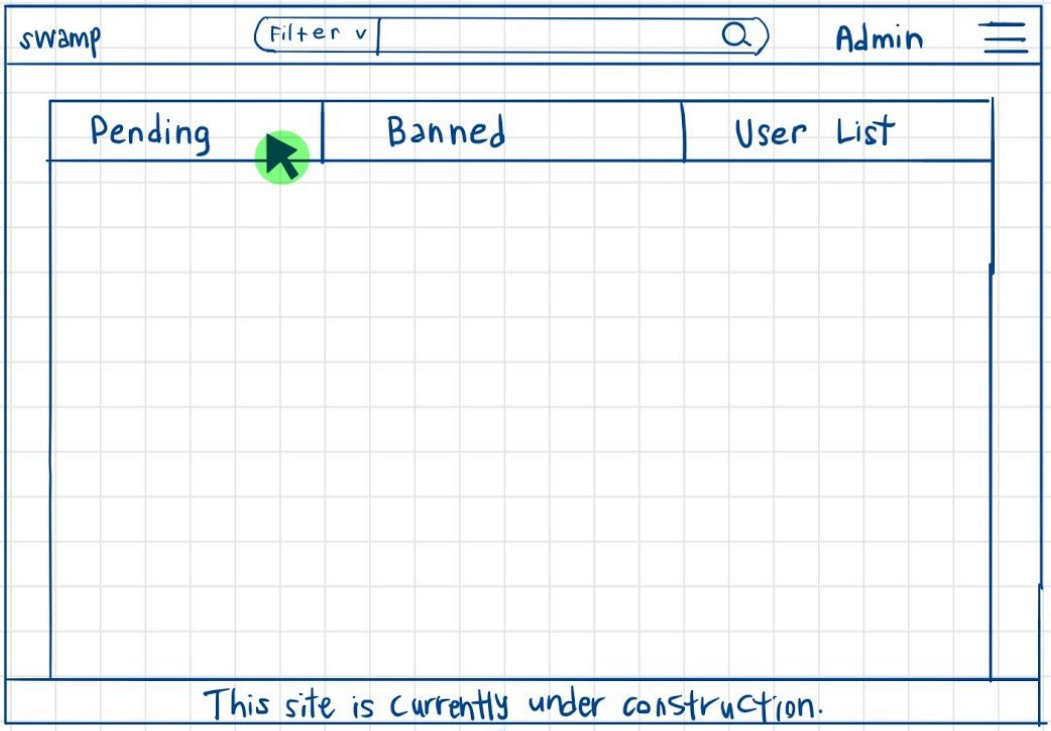


Priority 4: Flag user/post





Report


swamp
Filter v
Admin
Pending
Banned
User List
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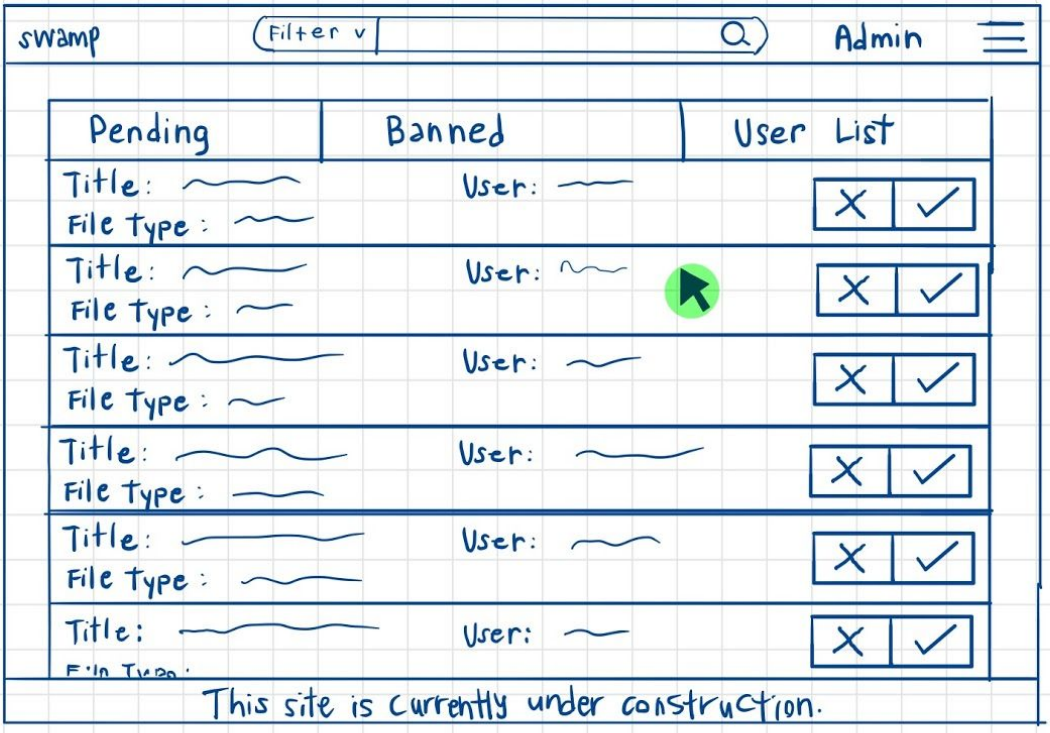
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User List
Title:
File Type:
User:
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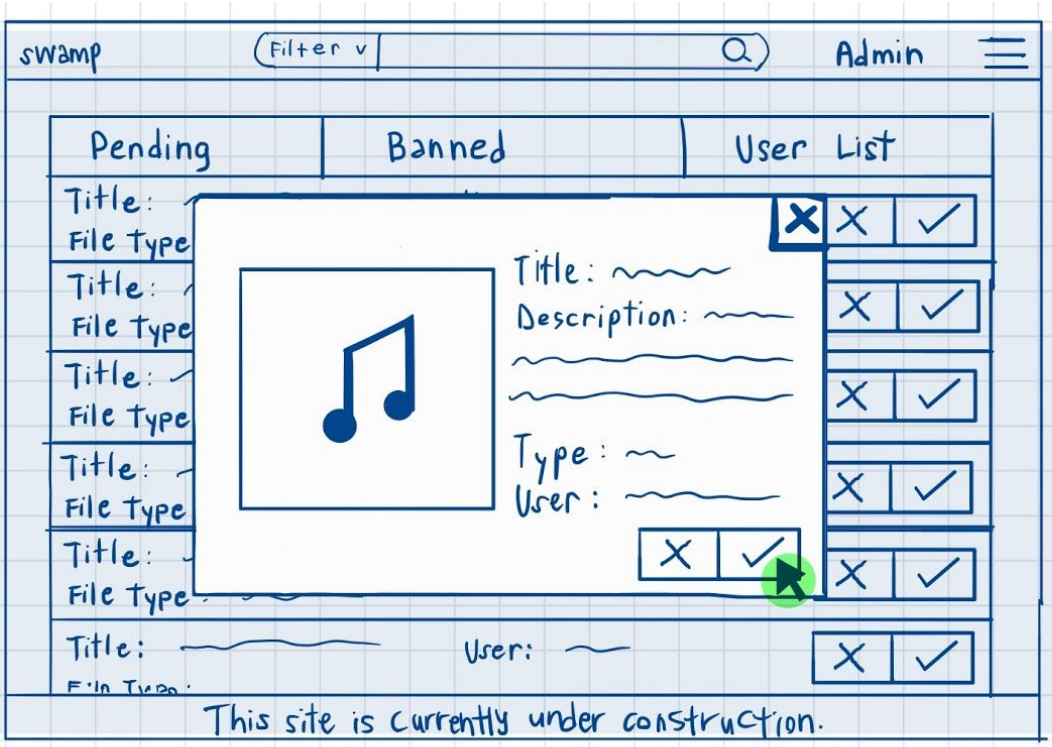
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File Type:
Title:
Description:
Type:
User:
User:
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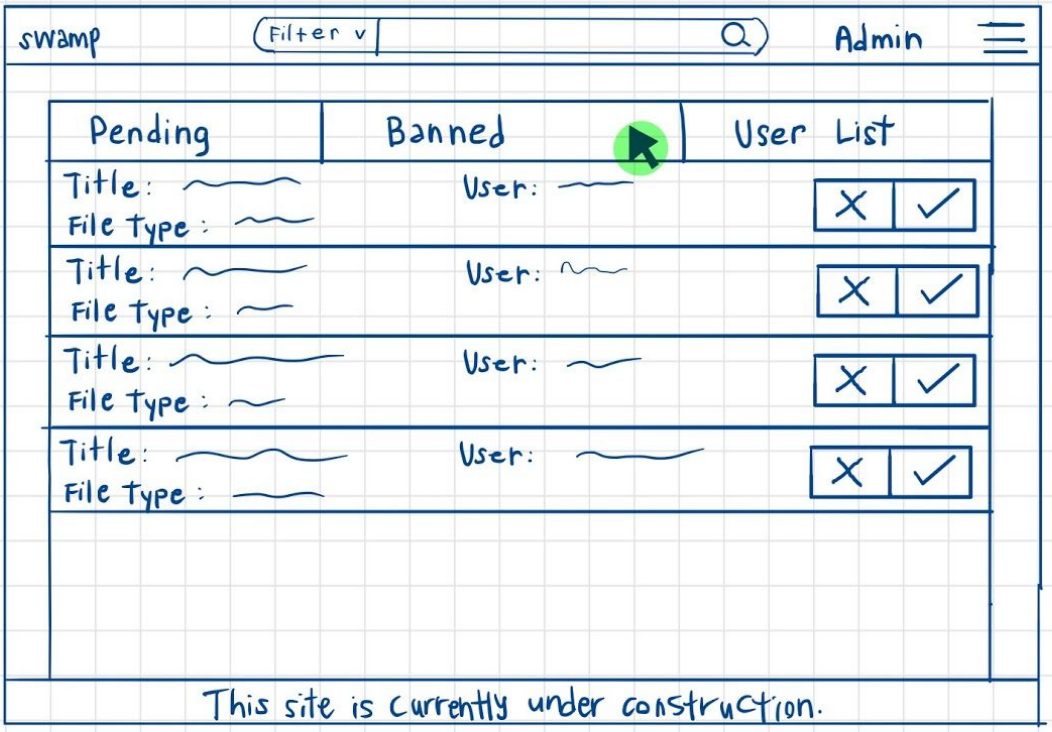
swamp
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User List
Title:
File Type:
User:
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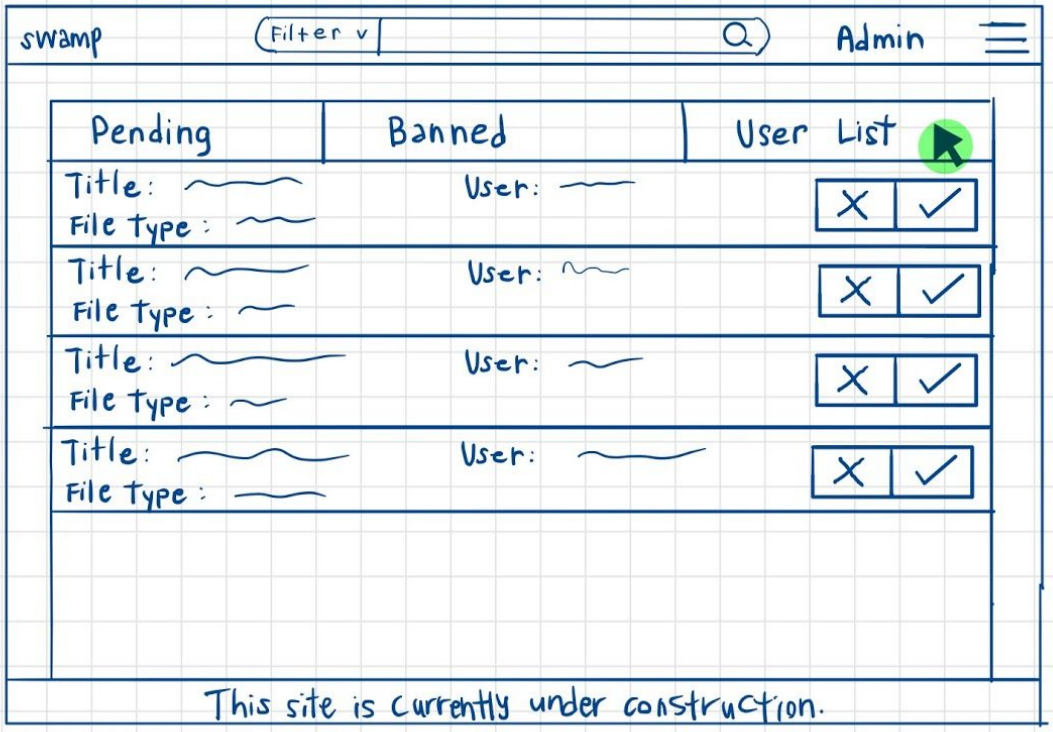
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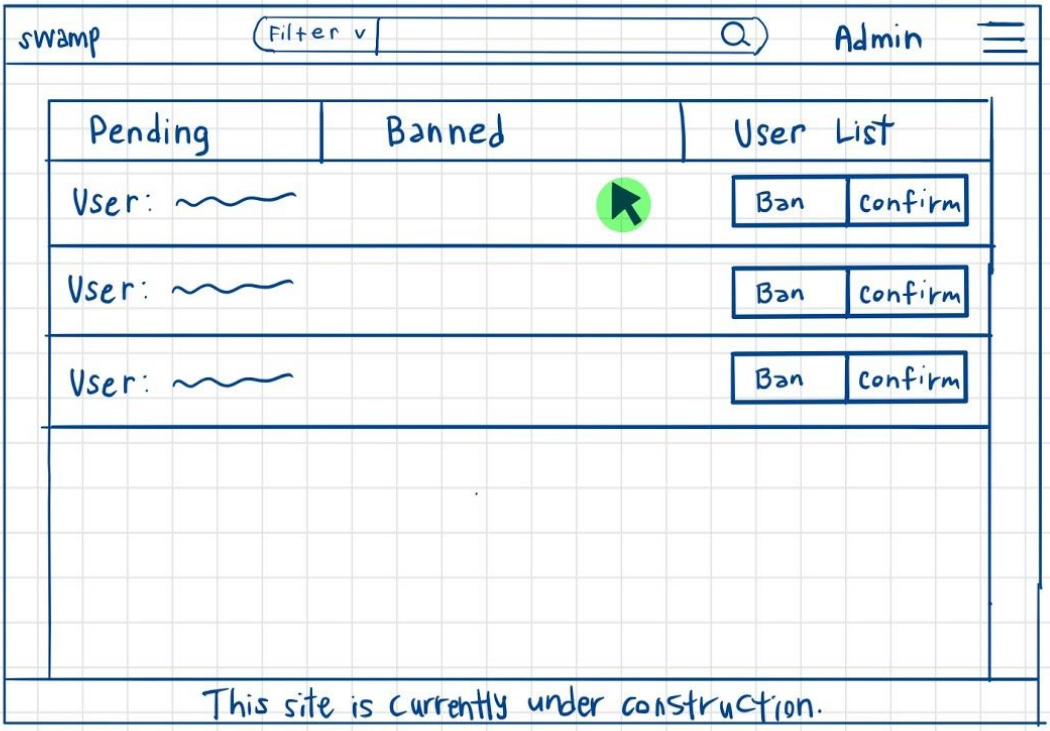
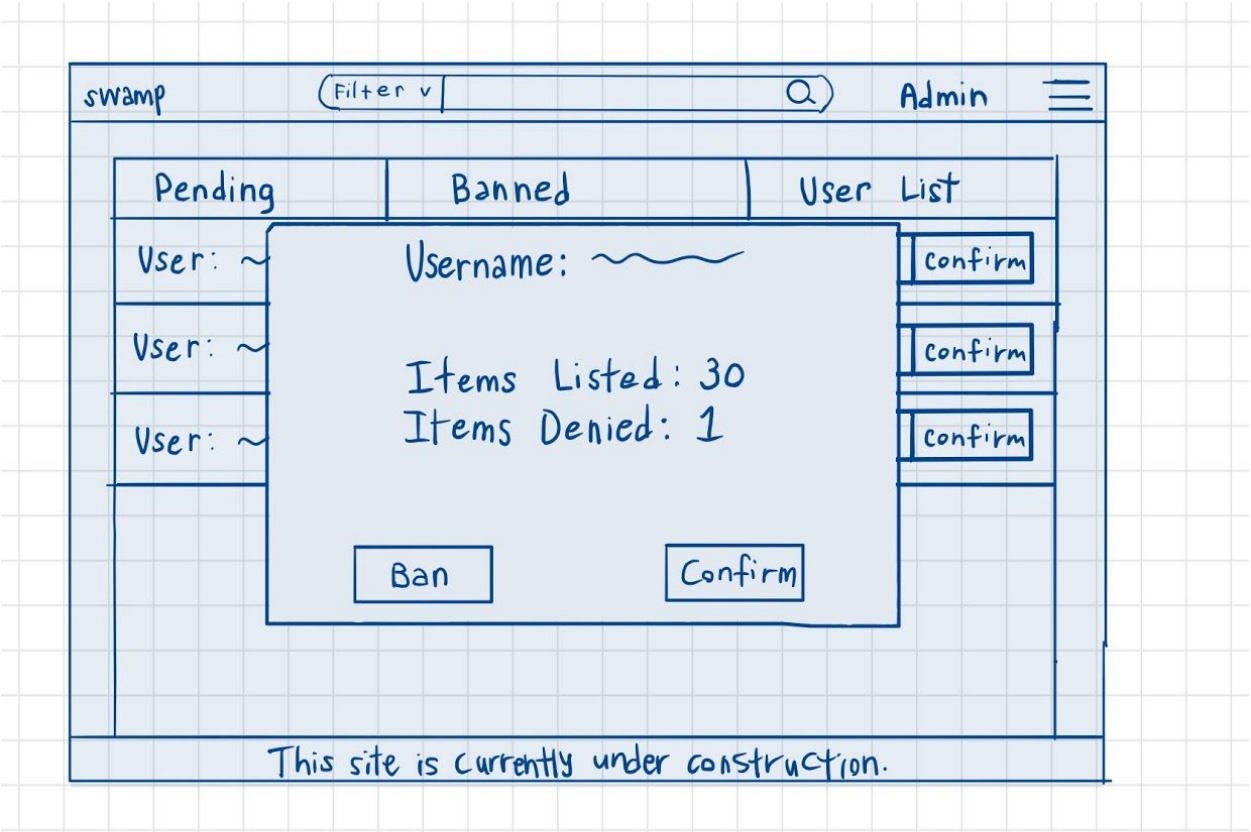
File Type:
User:
This site is currently under construction.


swamp
Filter v
Admin
Pending
Banned
User List
User:
Ban
Confirm
This site is currently under construction.



4. Architecture and Database Organization

1. Database Organization:
    I. Accounts
        a. Acc_id: PK
        b. Username: UK
        c. Password
        d. Email
    II. Registered Users
        a. Reg_id: PK
        b. Acc_id: UK
        c. First_name
        d. Mid_initial
        e. Last_name
        f. Listing_req
        g. Listing_app
        h. Listing_den
    III. Admin

    a. Admin_id: PK
    b. Acc_id: FK, UK

IV. Banned Users
    a. Ban_id: PK
    b. Acc_id: FK, UK
    c. Banned_by: FK
    d. Reason
    e. Ban_date
    f. Unban_date
    g. Ban_active

V. Media Content
    a. M_id: PK
    b. Title
    c. Description
    d. Preview_path: UK
    e. Raw_path: UK
    f. Category
    g. Price
    h. Acc_id: FK
    i. Academic
    j. Status
    k. Status_by: FK

VI. Digital Media
    a. Dm_id: PK
    b. M_id: FK, UK
    c. sold

VII. Physical Media
    a. Pm_id: PK
    b. M_id: FK, UK
    c. Bought_by: FK

VIII. Message Box
    a. Message_id: PK
    b. Sender_id: FK
    c. Acc_id: FK
    d. Message
    e. Date
    f. Time
    g. Read

IX. Reported Users List

a. Ru_id: PK
b. Reporter_id: FK
c. Reportee_id: FK
d. Date
e. Time
f. Reason

X. Reported Media List
a. Rm_id: PK
b. Reporter_id: FK
c. M_id: FK
d. Date
e. Time
f. Reason

XI. Shopping Cart
a. Item_id: PK
b. Approved_id: FK
c. Price: FK
d. Reg_id: FK

XII. Wish List
a. M_id: PK, FK
b. Reg_id: PK, FK

XIII. Bought Digital Media
a. Bought_id: PK
b. M_id: PK, FK
c. Reg_id: PK, FK

XIV. Checkout
a. Order_id: PK
b. M_id: FK, UK
c. Reg_id: FK, UK

2. Media Storage: All media content will be kept in file systems with their paths stored in the attributes: raw_path and preview_path.
3. Search/Filter Architecture and Implementation: We will be using a combination of the mySQL LIKE operator and SOUNDEX function. The terms that will be searched will be the titles and description of the Media Content table, but ONLY if the M_id is present in the Approved Media table. The Media Content items can be filtered into their own categories (ex. All, Documents, Videos, ...) and beyond that will be

whether the media content is academic or not, but further filtering has yet to be decided.

4. Our API: We will be creating our own API to abstract away the MySQL connector.

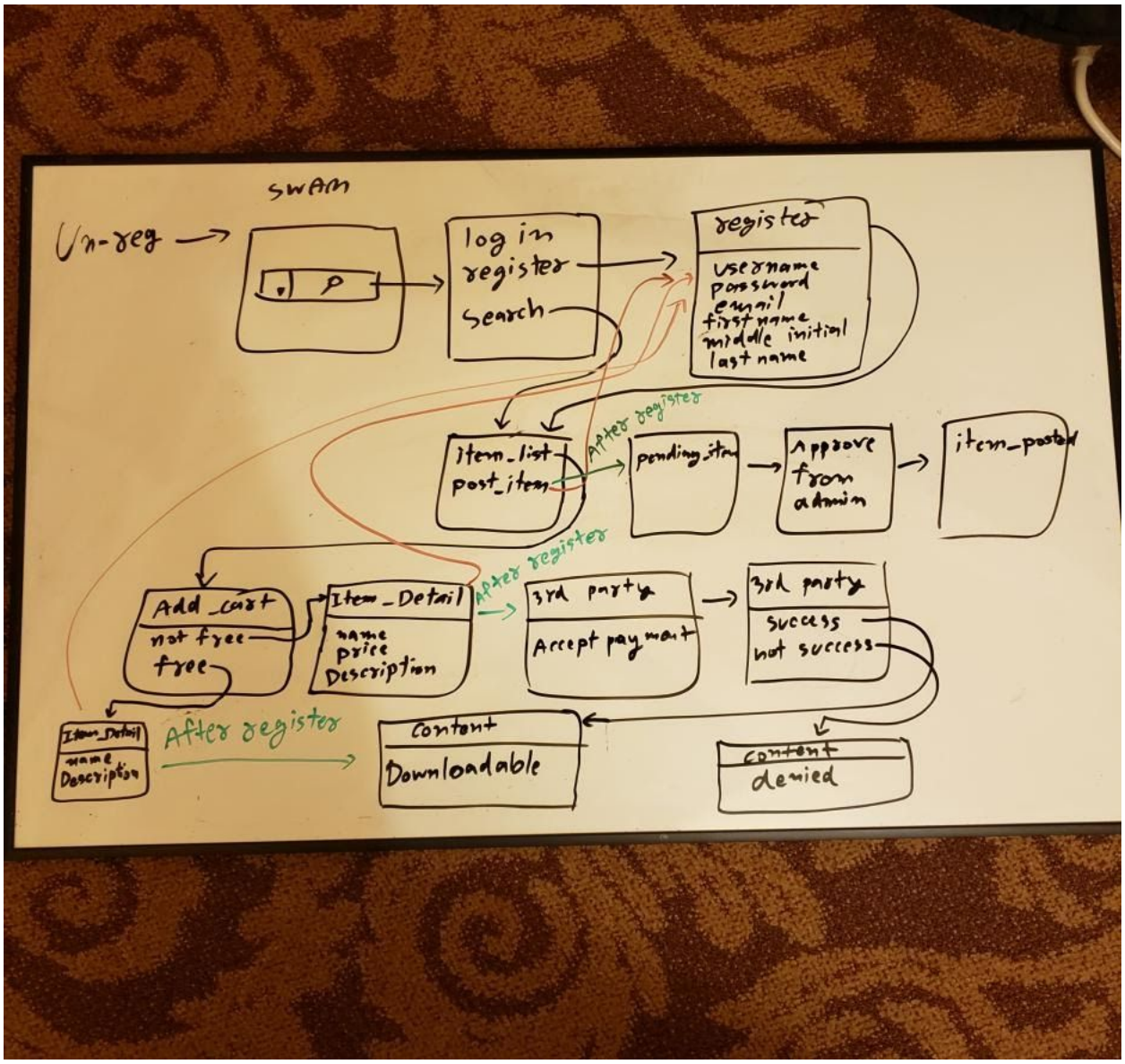
Server Host	Amazon Web Services
Operating System	Ubuntu v18.04
Database	MySQL v14.14
Web Server	Amazon EC2
Server-side Language	NodeJS v12.14.1
Front-end Framework	ReactJS v16.9.0
Front-end Framework	Redux v4.0.5
Back-end Framework	Express v4.16.1
Database Server Host	Google Cloud

5. We haven't changed any SW tools or Frameworks, but it has come to our attention that we had forgotten to include that our database is hosted on Google Cloud

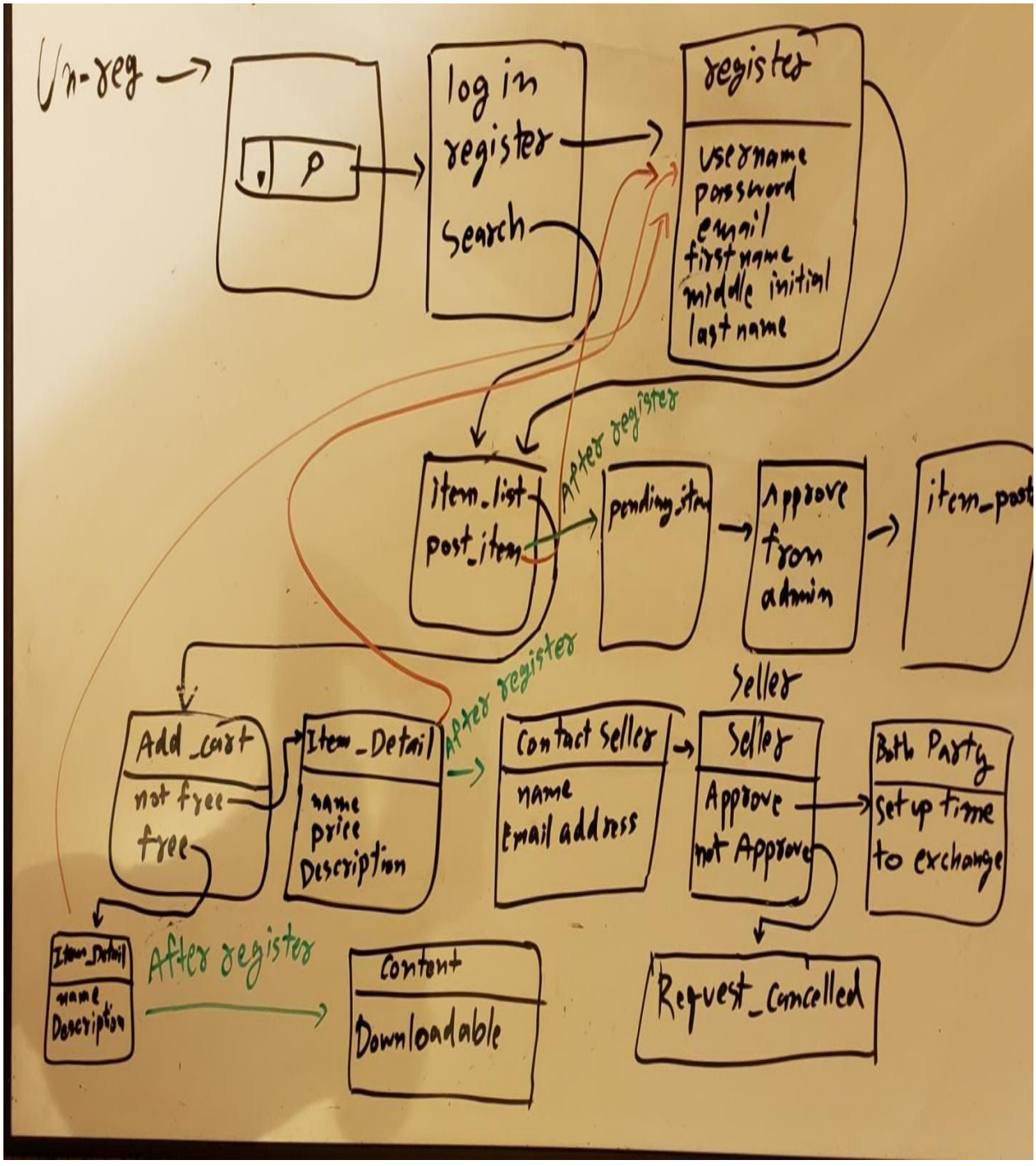
5. UML Diagrams

5 a) Class Diagram for each cases

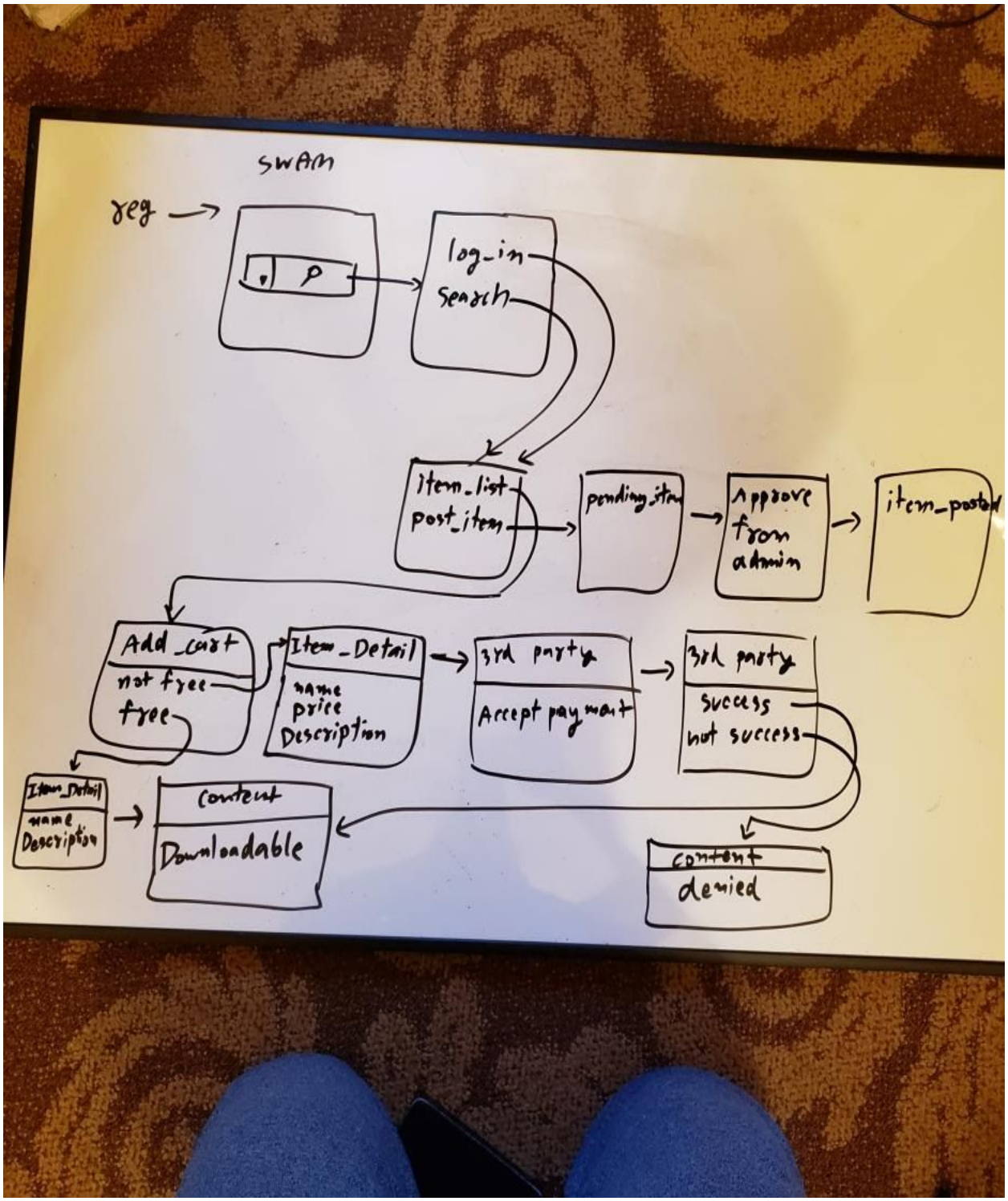
For unregistered users to buy digital media content



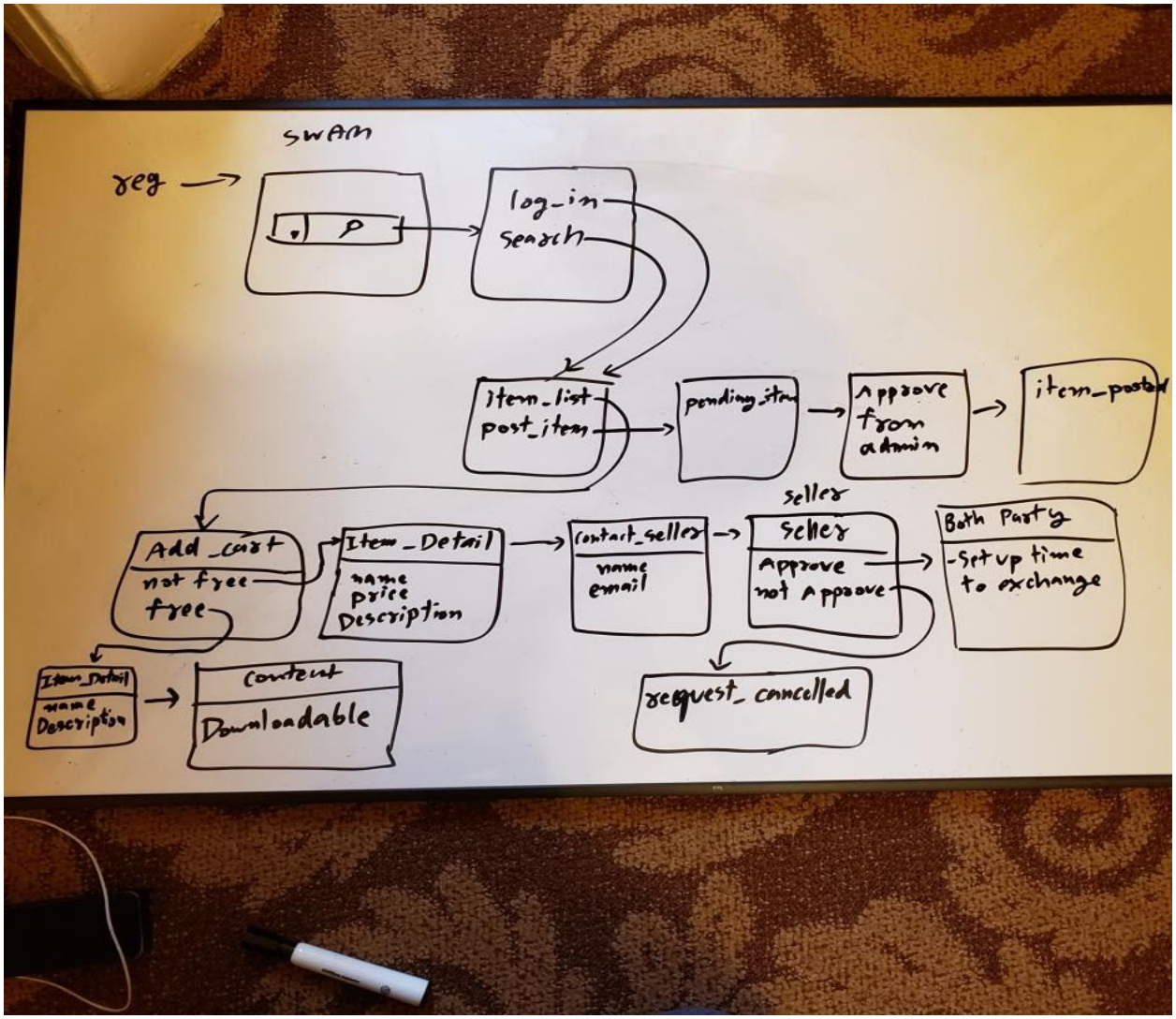
For unregistered users to buy physical media content



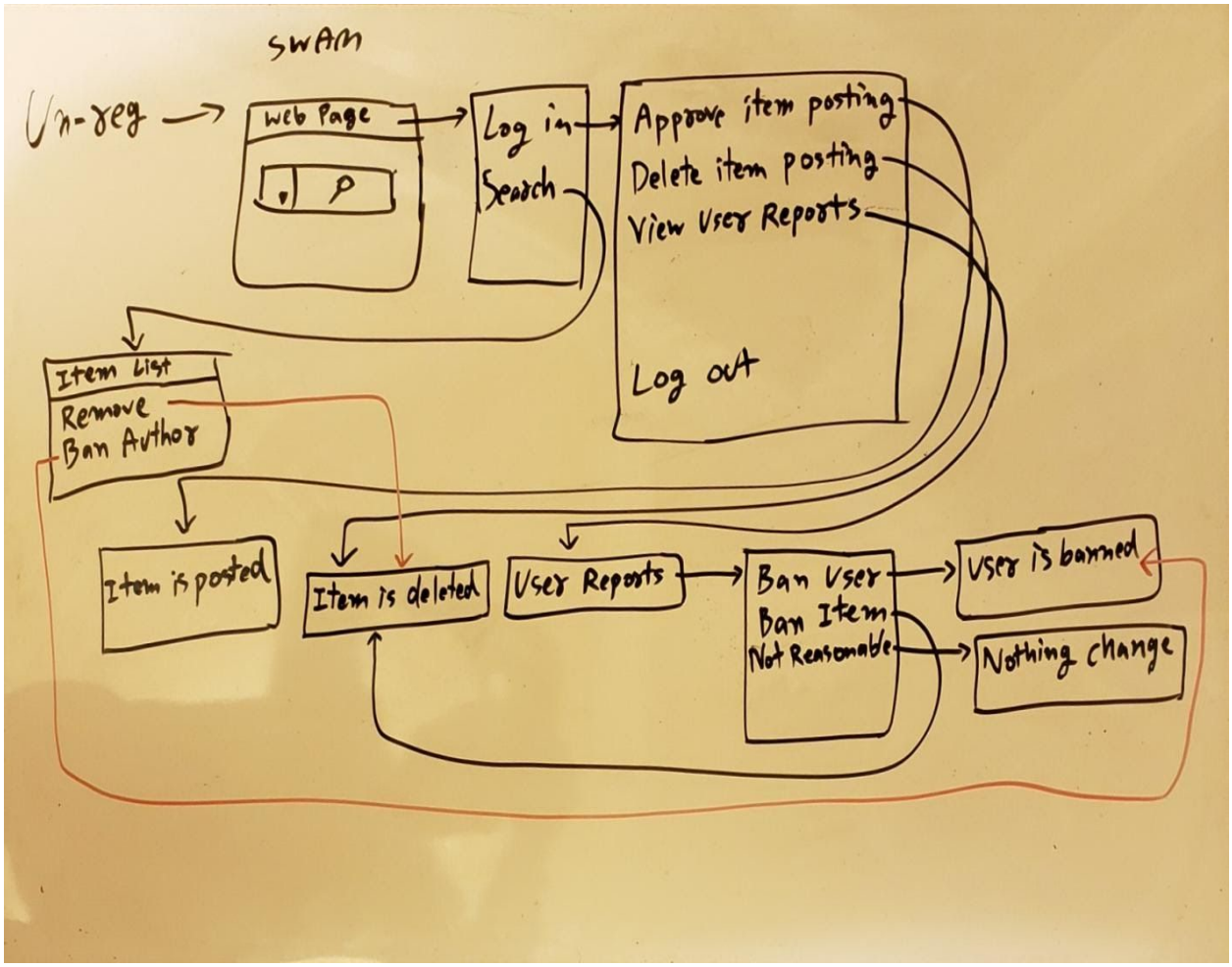
For registered users to buy digital media content



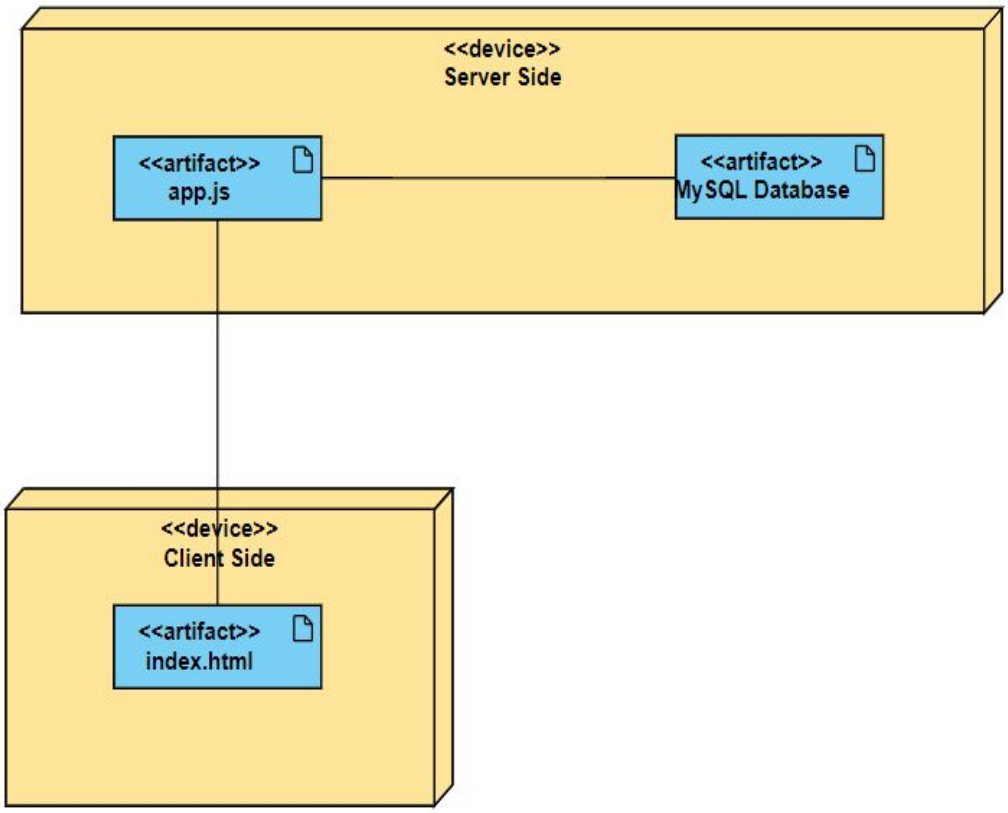
For registered users to buy physical media content



For Admin


SWAM
Un-reg
Web Page
Log in
Search
Approve item posting
Delete item posting
View User Reports
Log out
Item List
Remove
Ban Author
Item is posted
Item is deleted
User Reports
Ban User
Ban Item
Not Reasonable
User is banned
Nothing change

5 b) Component and Deployment Diagram



6. Key Risks

Skills risks (do you have the right skills) - Everyone is qualified for their position.

Schedule risks (can you make it given what you committed and the resources) - Currently ON TRACK. No schedule risks.

Technical risks (any technical unknowns to solve) - Front end design and implementation maybe a bit unknown but currently no issues.

Teamwork risks (any issues related to teamwork) - Coronavirus

Legal/content risks (can you obtain content/SW you need legally with proper licensing, copyright) - No, Swamp uses free software. Admin take care of any inappropriate content.

7. Project Management

Currently, the entire Swamp team is connected through Discord text and voice chatting. Swamp also meets up over Zoom sessions once a week for class lectures. We also are split up into a front-end and back-end team. Each of those teams has leaders who understand what is currently the highest priority to work on. Each of the teams also has their own chatting channel for them to stay connected. Discord also gives the team the ability to screen share in order to have a presenter amongst the meetings.

Swamp also uses the application Trello to keep tasks organized by describing those tasks with cards. These cards can be organized in many ways such as priority, due date, etc. This way the team stays connected and up-to-date with what the project state currently is.