CSC 648-848 01 Fall 2019

Gator Trader

Team 05

Milestone 02:

More Detailed Requirements, Specs, Architecture, UI Mock-Ups &
Vertical SW Prototype

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Date	Description
10 / 9 / 2019	First Draft
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10 / 29 / 2019	Draft Revision

P1 Requirements

1. Functional Requirements

    a. Unregistered User

        i. Shall be able to browse through listed items for sale (1)

        ii. Shall be able to view the details of each post (1)

        iii. Shall be able to become a registered user (1)

    b. Registered User

        i. Shall be able to do all of unregistered user + (1)

        ii. Shall be able to log in to their account (1)

        iii. Shall be able to log out of their account (1)

        iv. Shall be able to contact a seller (1)

        v. Shall be able to post items for sale (1)

        vi. Shall have access to the registered user dashboard for messaging (1)
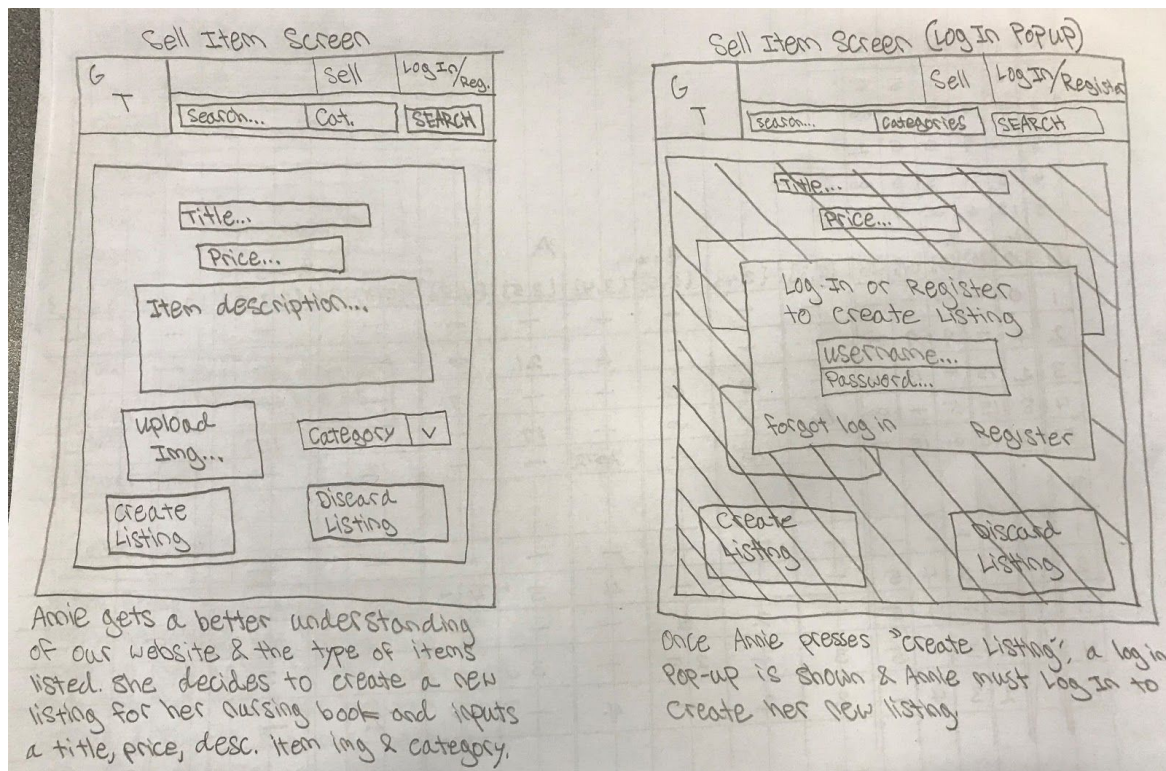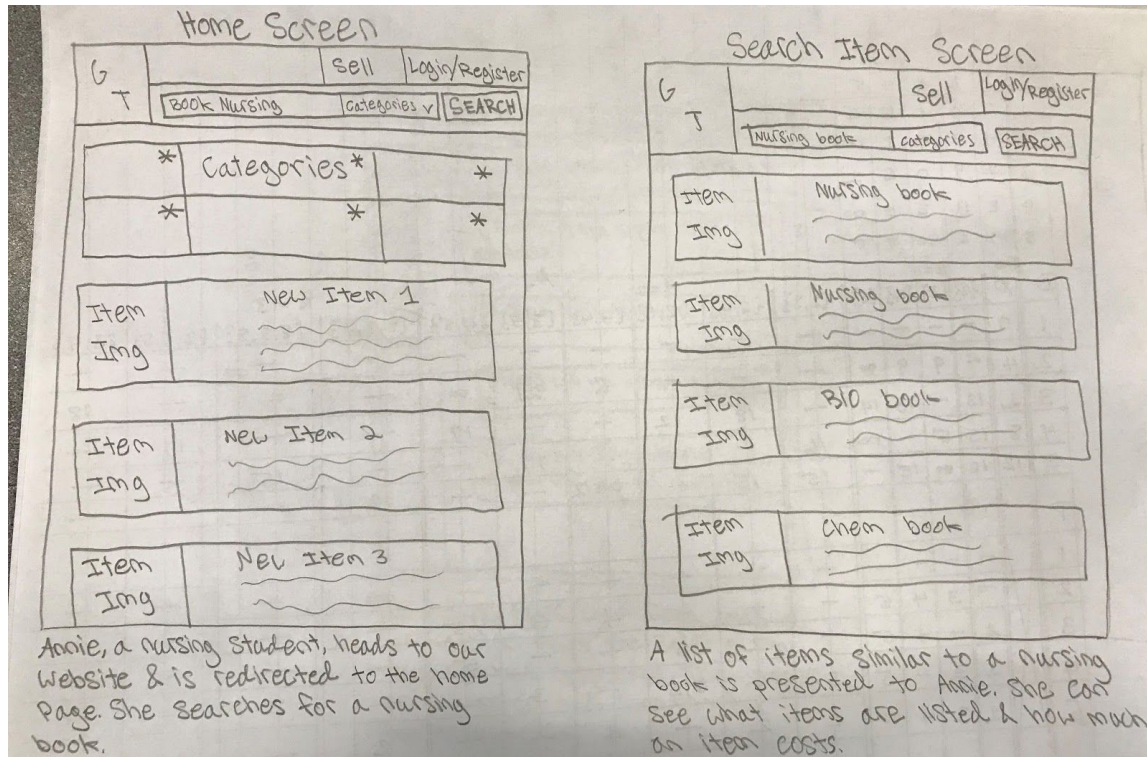
    c. Administrator

        i. Shall be able to access the database of Gator Trader (1)

        ii. Shall be able to approve / deny potential posts to Gator Trader (1)
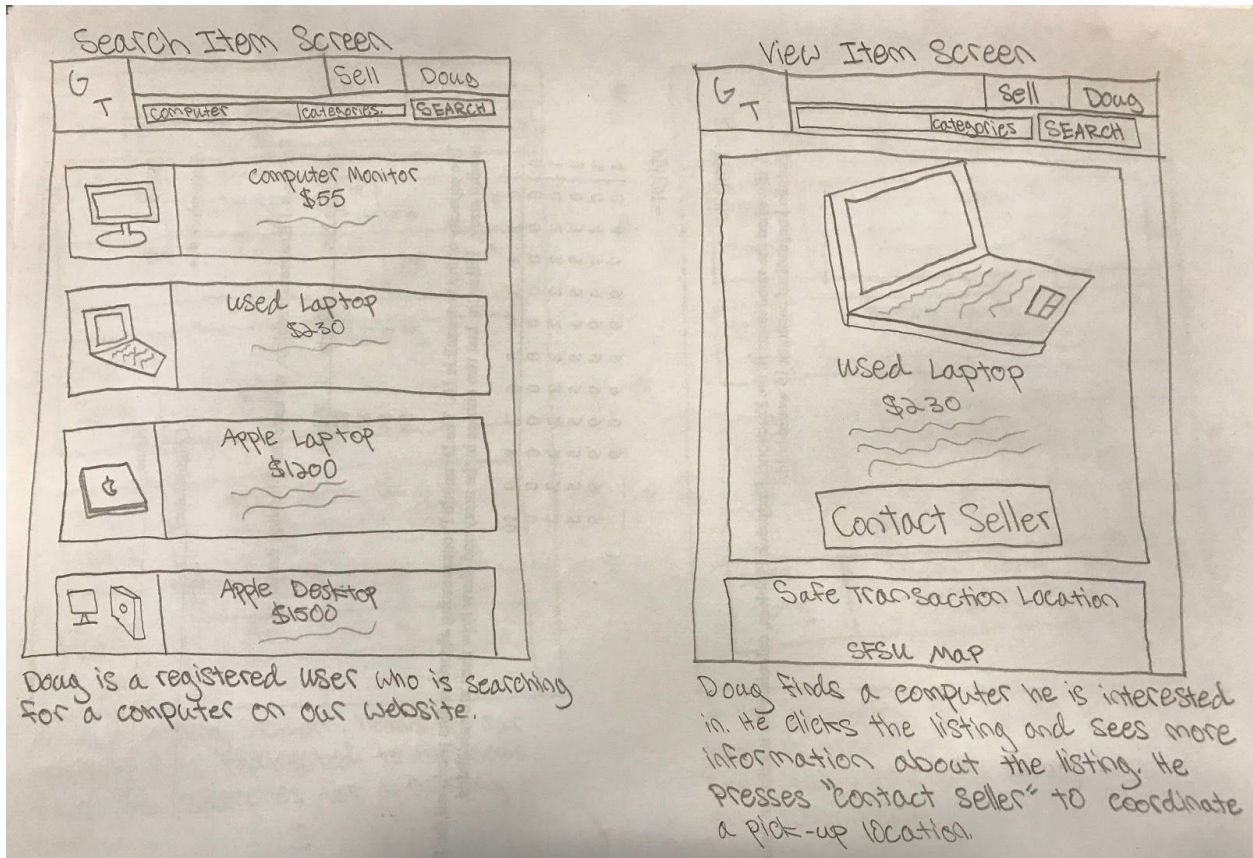
P2/P3 Requirements

2. Functional Requirements

    a. Unregistered User

        i. Shall be able to sort the posts by price, newest post (2)

    b. Registered User

        i. Shall have access to registered user dashboard for personal post management (2)

    c. Administrator

        i. Shall be able to Suspend / Ban accounts for terms violations (3)

        ii. Shall have access to Google Analytics for Gator Trader (2)

3. UI Mockups and Storyboards

Home Screen

Categories*

Item Img — New Item 1

Item Img — New Item 2

Item Img — New Item 3

Annie, a nursing student, heads to our website & is redirected to the home page. She searches for a nursing book.

Search Item Screen

Item Img — Nursing book

Item Img — Nursing book

Item Img — BIO book

Item Img — Chem book

A list of items similar to a nursing book is presented to Annie. She can see what items are listed & how much an item costs.

Sell Item Screen

Title...
Price...
Item description...
Upload Img...
Category v
Create Listing
Discard Listing

Annie gets a better understanding of our website & the type of items listed. She decides to create a new listing for her nursing book and inputs a title, price, desc. item img & category.

Sell Item Screen (Log In Popup)

Title...
Price...

Log In or Register to create Listing
Username...
Password...
forgot log in   Register

Create Listing   Discard Listing

Once Annie presses "Create Listing", a login pop-up is shown & Annie must log in to create her new listing.

add

Search Item Screen

G T | Sell | Doug
computer | Categories | SEARCH

Computer Monitor
$55

Used Laptop
$230

Apple Laptop
$1200

Apple Desktop
$1500

Doug is a registered user who is searching for a computer on our website.

View Item Screen

G T | Sell | Doug
Categories | SEARCH

Used Laptop
$230

Contact Seller

Safe Transaction Location

SFSU Map

Doug finds a computer he is interested in. He clicks the listing and sees more information about the listing. He presses "Contact Seller" to coordinate a pick-up location.

User Dashboard (MSG)

| G T | | | Sell | Doug |
| Message! | Favorite Items | Your Listings |

Frank
Seller

Amy
Seller

Jon
Buyer

> Hi Frank, is the laptop still available?

> yes I am still trying to sell it.

> Great! will you accept $200

> yes, $200 is fine. Lets meet at blue pole #3 at 5:00PM.

Some time goes by & Doug sees a notification that the seller of the computer has responded. They agree on the price and location for the transaction.

Panel 1 (top left)

Gator Trader

Sign in/Register | Sell | About Us

Search... | Categories ∨ | SEARCH

Title
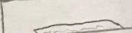
| School Services | Beds | Couches |
| Tables | Clothes | Sporting Goods |

Dinning Room Table
$60
Great table, I used to eat off of it...

Cool Pants
$25
these are my fav pants but I need money

Brand New Laptop

A user opens our website and is presented with the home screen. He sees a navigation bar & search at the top. Below are categories of items so they can see what is offered. Below that, recently listed Items are shown. The user clicks on the recently listed Table.

Panel 2 (top right)

Gator Trader

Sell | About Us

Title

Dinning Room Table
$60
Great table ～～～
Color ～ ～ ～
Size ～ ～ ～

Buy

Old Desk
$50
Please Buy soon

?

used Green Table
$21
a small green table I no longer need

The user is shown more information about the table. Similar listings to the table are shown below. The user clicks on the Buy button

Panel 3 (bottom left)

G T

Sign in/Register | Sell | About Us

Search... | Categories ∨ | SEARCH

Dinning Room table
$60

BUY

Log In OR Register
to purchase Item
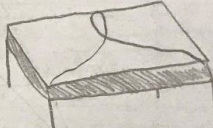Username
Password
forgot login   Register

$50
Please buy soon

used Green Desk
$21

The user is not logged in so a login window is displayed and the rest of the screen is darkened. The user may also press "forgot login" or "register" or click outside

Panel 4 (bottom right)

G T

Nick Lopez | Sell | About Us

Search... | Categories ∨ | SEARCH

Dinning Room Table
$60
Joe Smith

Contact Seller

Safe Transaction Location

SFSU MAP

Once a user is logged in, the full listing is shown when Buy is pressed. There the seller's contact info is shown along with a map of SFSU, indicating where the safe transaction spots are located.

Login Page

G T		Sell	Login/Register
	Categories ⌄	SEARCH	

Login to
Gator Trader

Username...

Password...

ENTER

Register

Steve is a user we have hired to
be an admin on our website. He
will login and be able to approve
or reject pending listings.

Admin Verification

G T		Sell	Login/Register
	Categories ⌄	SEARCH	

Administrator
Verification

Password...

Once Steve logs in, he will be redirected
to a page for Admin verification, He
will enter a password that we provide.

Admin Dashboard

| G T | Search... | Categories ∨ | SEARCH | Sell | Admin |

Pending Listings

nice chair
$30
~~~~~
~~~~~
~~~~~
✓
✗


Used Dresser
$70
~~~~~
~~~~~
~~~~~
✓
✗

Bio Textbook
$45
~~~~~
✓
✗


T-Shirt
$15
~~~~~
~~~~~
~~~~~
✓
✗

Steve will then be redirected to
the admin dashboard where pending
listings will be displayed for the
Admin to inspect for inappropriate
listings. once a listing is approved, it will
be visable to every user.

4. High level Architecture, Database Organization

Database organization:

Table	Purpose	Items
User	All registered users (excluding Admins)	Username, password, user ID
Admin	All registered admins	Username, password, admin password
Listing	All posted items for sale	Title, price, owner, approval, desc, category, date
Catalog	All category classifications	Category
Message	All peer-to-peer messages used onsite	Sender, num of msg, newmsg

Media storage:

● Image and video/audio files will be kept in BLOBs (Binary Large OBjects)

Search/filter architecture and implementation:

Algorithm/SW for search

● expression LIKE pattern ESCAPE escape_character
  ○ pattern % wildcard for zero or more characters
  ○ pattern _ wildcard for single characters

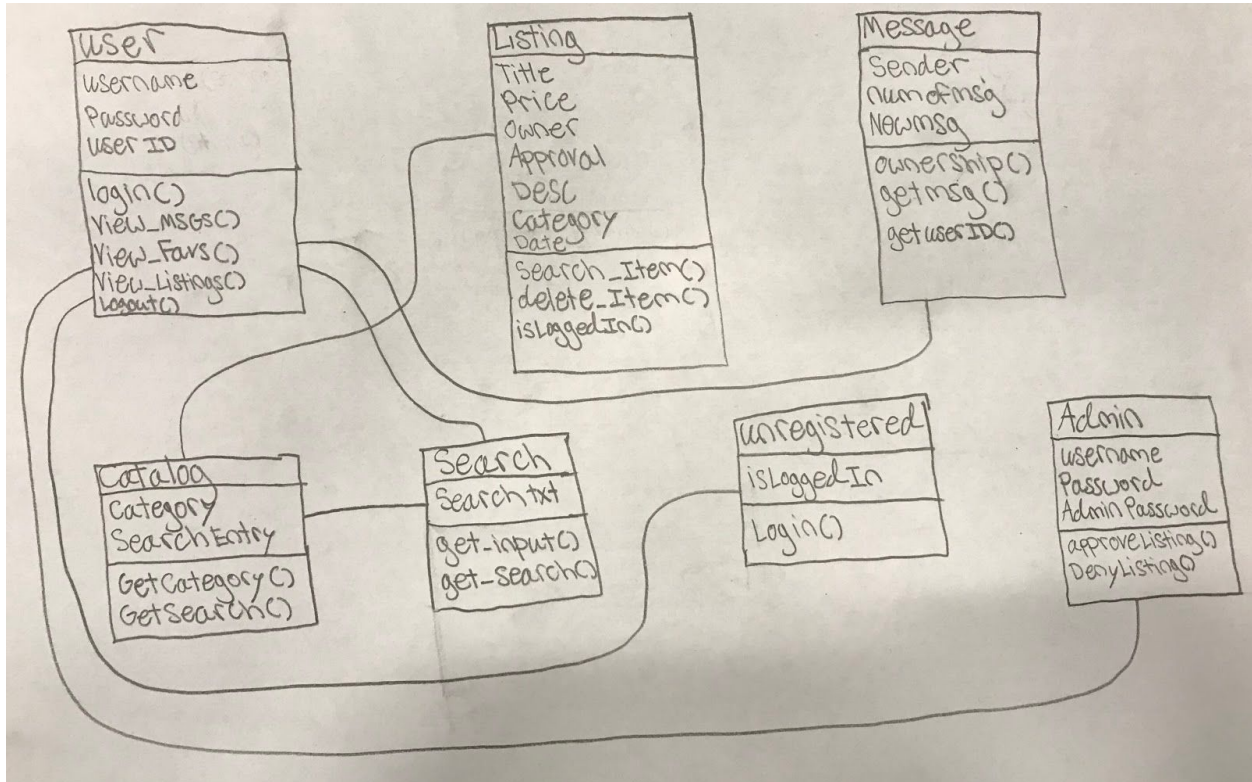Organizing search items from user, by order of priority

1. Match search string closely

        i.   Use category if selected

       ii.   Default to title if not selected

2. Match search string loosely

        i.   Use category if selected

       ii.   Default to title if not selected

3. Autosort matches from (1) and (2) by date

        i.   Provide alternate sort options (price)

4. If search string is empty and

        i.   Category is selected, list category listings by date

       ii.   Category is empty, list all listings by date
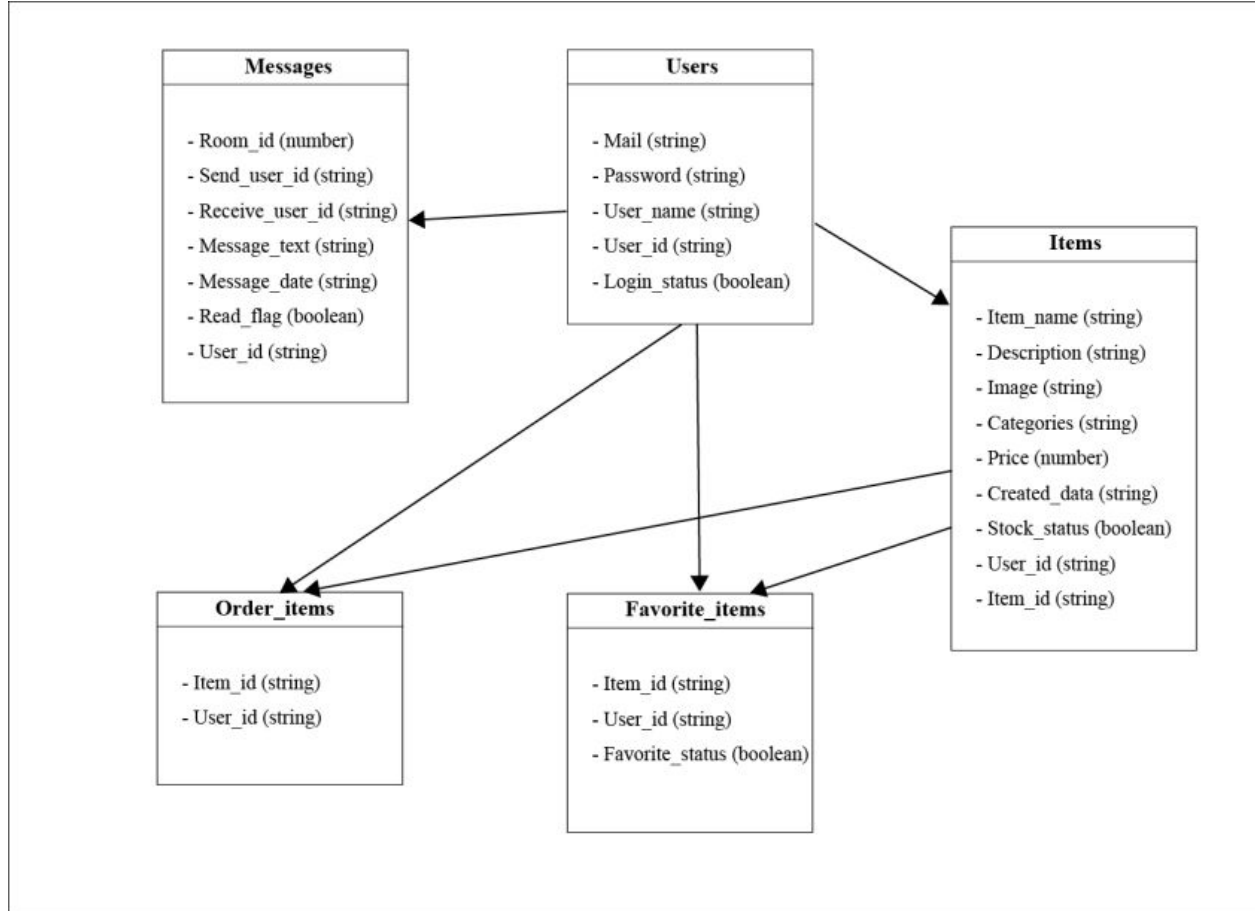
<u>Modified SW tools/frameworks</u>:

- Server Database (directly into AWS EC2 server): mysql Ver 14.14 Distrib 5.7.27, for Linux (x86_64) using EditLine wrapper

5. High Level UML Diagrams

User
- username
- Password
- user ID

- login()
- View_MSGS()
- View_Favs()
- View_Listings()
- Logout()

Listing
- Title
- Price
- Owner
- Approval
- DESC
- Category
- Date

- Search_Item()
- delete_Item()
- isLoggedIn()

Message
- Sender
- num of msg
- New msg

- ownership()
- get msg()
- get user ID()

Catalog
- Category
- Search Entry

- Get Category()
- Get Search()

Search
- Search txt

- get-input()
- get-search()

unregistered
- isLoggedIn

- Login()

Admin
- username
- Password
- Admin Password

- approve Listing()
- Deny Listing()

6. Deployment Diagram

7. Identify actual key risks for your project at this time

a. Skills risks

Our team at *Gator Trader* is entirely composed of front-end developers. During the role assigning process, all team members declared themselves as front-end developers and expressed that they do not have previous back-end experience. As we needed a back-end lead, Daniel Gutierrez volunteered and conveyed that he would read and watch tutorials to familiarize himself with the skills, frameworks, and technologies needed for us to succeed. Hayato Waki is also assisting Dann with the back-end. Although we have had some roadblocks with the back-end

(problems with Express in Milestone 0) we have worked hard to correct all issues. We anticipate that we will be able to hurdle past any problems through our team's hard work and diligence.

b. Schedule risks

Based on our committed features and available resources, we do expect to finish our application in time. Although we are limited on the back-end side or our team, we believe that we can power through any adversity that comes our way. Our team is well organized and has excellent communication which allows us to complete tasks punctually.

c. Technical risks

Our team does not have any technical unknowns to solve at this time.

d. Teamwork risks

Our team does not have any teamwork risks. All group members have mutual respect for one another and communicate in a timely manner.

e. Legal/Content risks

Our team does not currently have any legal/content risks. As our application progresses, we will do our due diligence to obtain any required licenses to avoid copyright infringement.

8. Project management

Our team has done a large amount of our group project organization on discord.gg, and we will continue to use the platform for day-to-day communications.
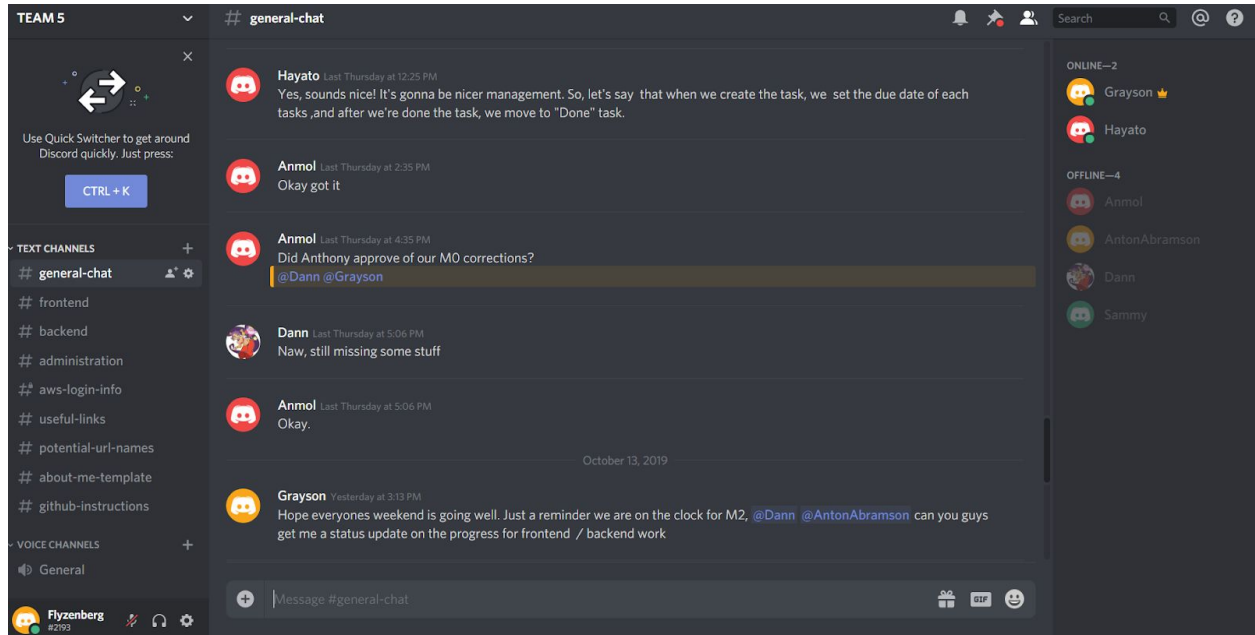
Our team has also began to use trello.com for the start of M2 and upcoming milestones.