

# AGORA

SFSU Community Market Place

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Final project SW Engineering CSC 648-848  
Spring 2025

## Team 02

Team Members
Nathan Delos Reyes - Team Lead - ndelosreyes@sfsu.edu
Xiaoxuan Wang - Github Master
Jose Ramirez- Front-end Assistant
Ranbir Atkar - Front-end Lead
Jeshwanth - Back-end Lead

Milestone	Date Submitted
M5	05/19/25

URL: <http://team02sfsu.org>

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# Product Summary

**Agora** is a community marketplace platform developed specifically for the SFSU campus, enabling students, faculty, and staff to **buy, sell, and trade** items and **share services or skills**. It supports transactions involving textbooks, dorm essentials, electronics, and student-led services such as tutoring or tech support. Designed to foster a **secure, user-friendly, and community-focused environment**, Agora integrates search filters, direct messaging, reviews, and content moderation, while preserving user privacy. What makes Agora unique is its **dual support for both product listings and skill-sharing posts**, tailored entirely to the needs of the **SFSU campus community**.

## Major Committed Functions

### Unregistered Users

- Can create a new account using SFSU email and password
- Can view listings with photos and descriptions
- Can view skill-sharing posts
- Can use keywords to search for items or services

### Registered Users

- Can buy listed products
- Can create listings to sell products
- **Can offer services or skills**
- **Can upload images and describe their products**
- **Can message sellers directly within Agora**
- **Can search for products using keywords**
- **Can Scroll and browse listings and services**
- **Can view skills shared by other users**
- **Can rate sellers after a transaction**
- **Can post tutoring or skill-sharing offers**

### Admins

- **Can Approve newly created posts before they go live**

Website URL: <https://team02sfsu.org/>

## Milestone documents – M1-M4

Milestone 1

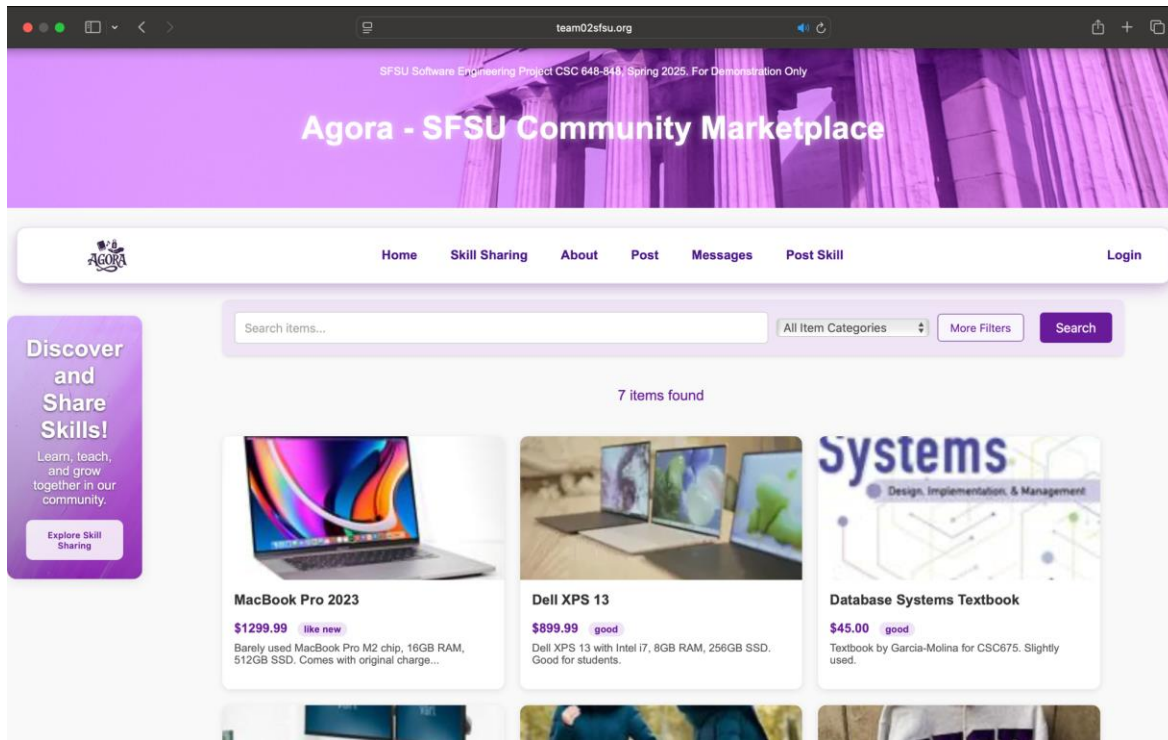
Milestone 2

Milestone 3

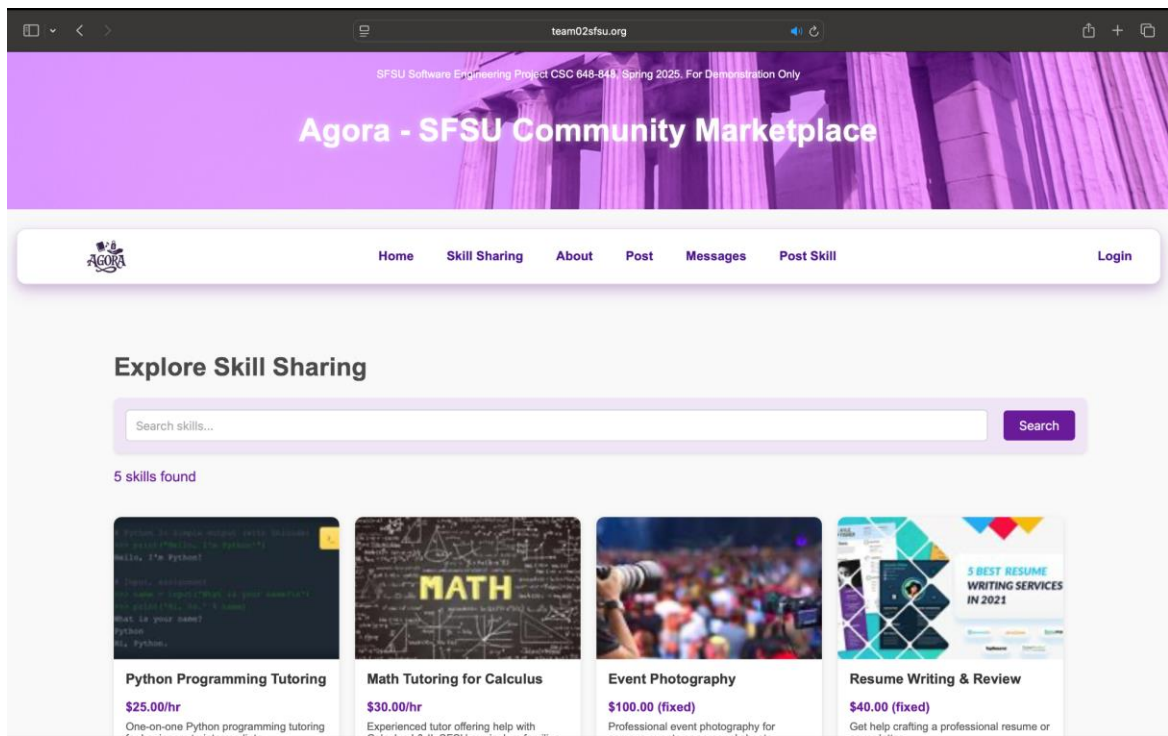
Milestone 4

## Product Screenshots

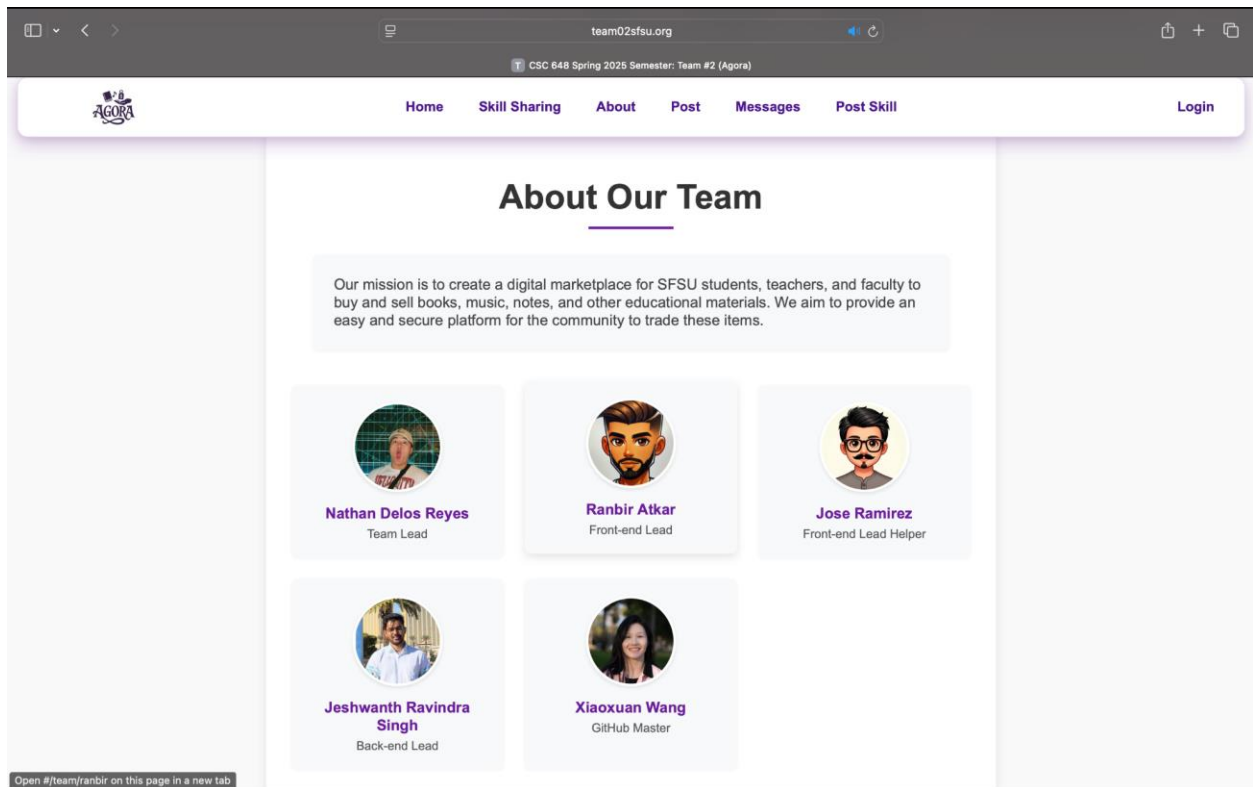
### Home/Dashboard



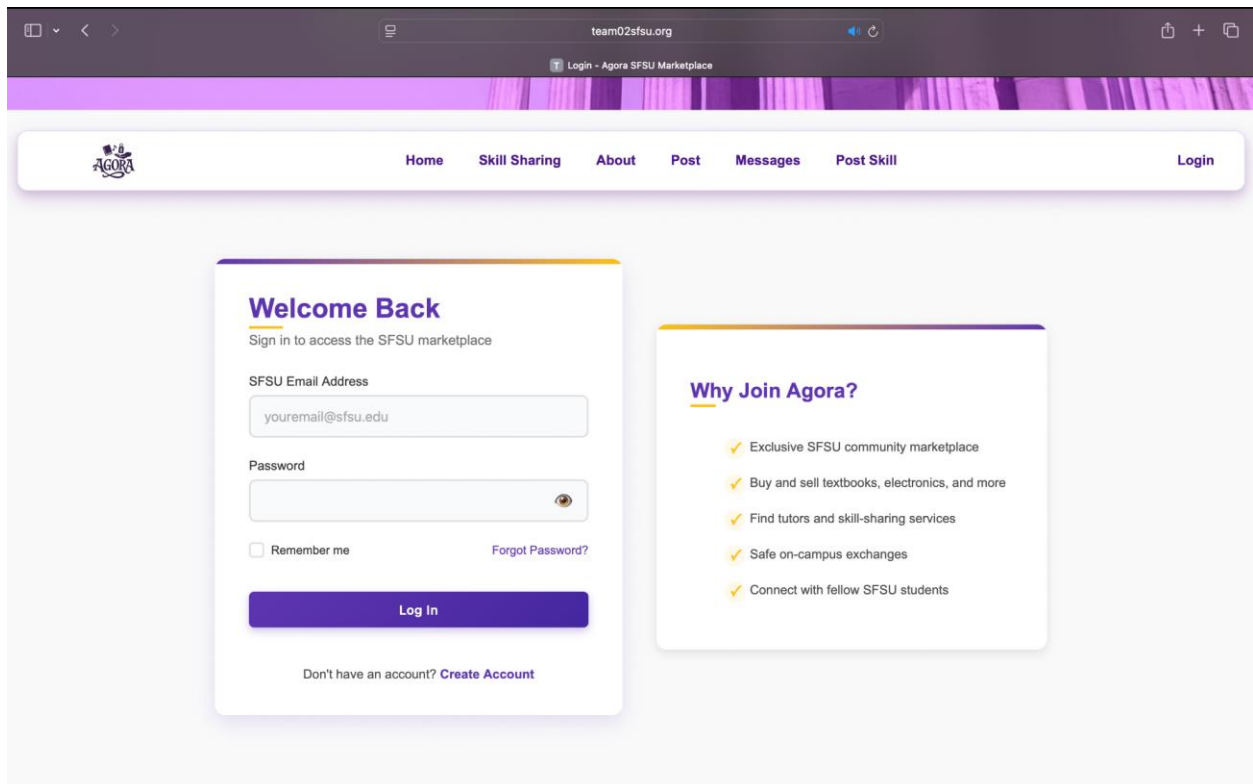
### Skill-sharing page



## About Team Page




## Login Page



## Register Page

team02sfsu.org

Register - Agora SFSU Marketplace



HomeSkill SharingAboutPostMessagesPost SkillLogin

## Create Account

Join the SFSU community marketplace

Full Name \*

SFSU Email Address \*


Password \*

Confirm Password \*

☐ I agree to the [Terms of Service and Privacy Policy](#)

Create Account

OR

 Sign up with SFSU

Already have an account? [Log In](#)


### Join Our Community

- ✓ Create a profile to buy and sell items
- ✓ Access exclusive SFSU student offers
- ✓ List your services and skills for the community
- ✓ Secure messaging with verified SFSU members
- ✓ Free to join - only SFSU emails accepted

## Post page

team02sfsu.org

Login - Agora SFSU Marketplace



HomeSkill SharingAboutPostMessagesPost SkillMy ListingsLogout

## Post an Item

Item Title

Description

Category

Select category

Condition

Price (\$)

e.g., 150.00

Suggested Meetup Location

Images

[Click or Drag to Upload Images](#)

Max 5 images. PNG, JPG, GIF accepted.

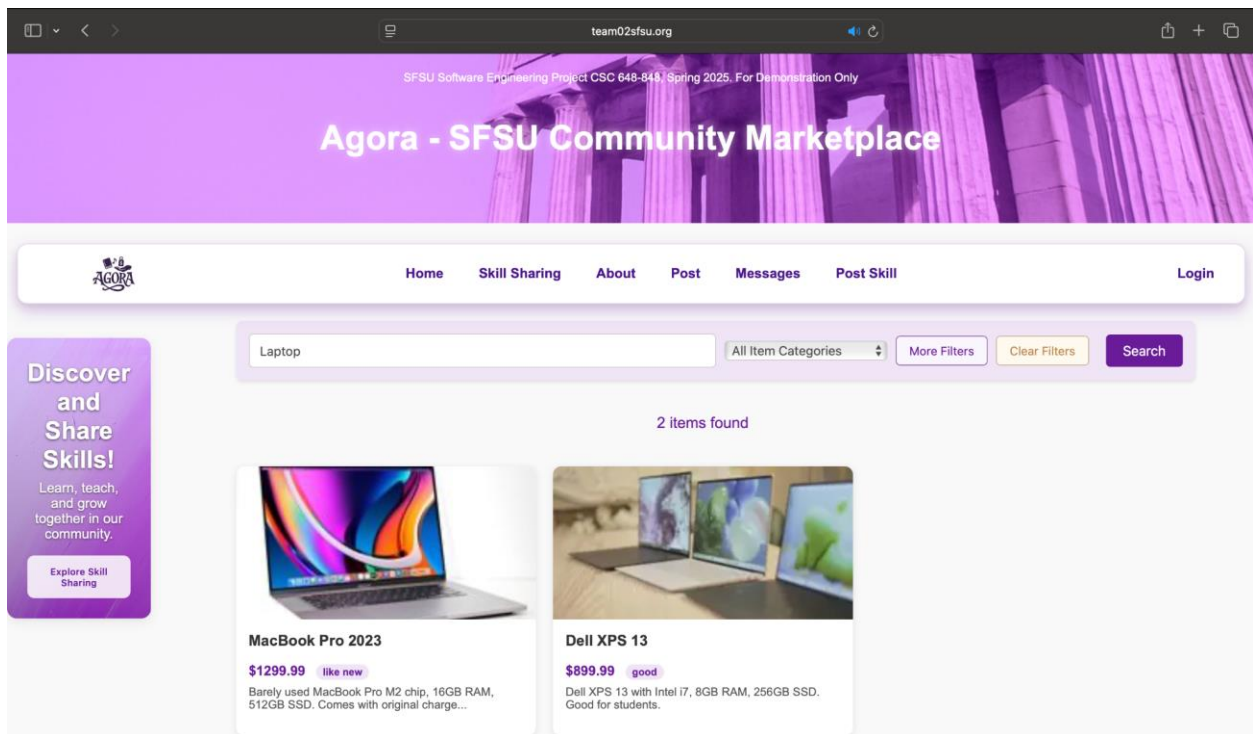
Post Item

## Post Skill/Service page

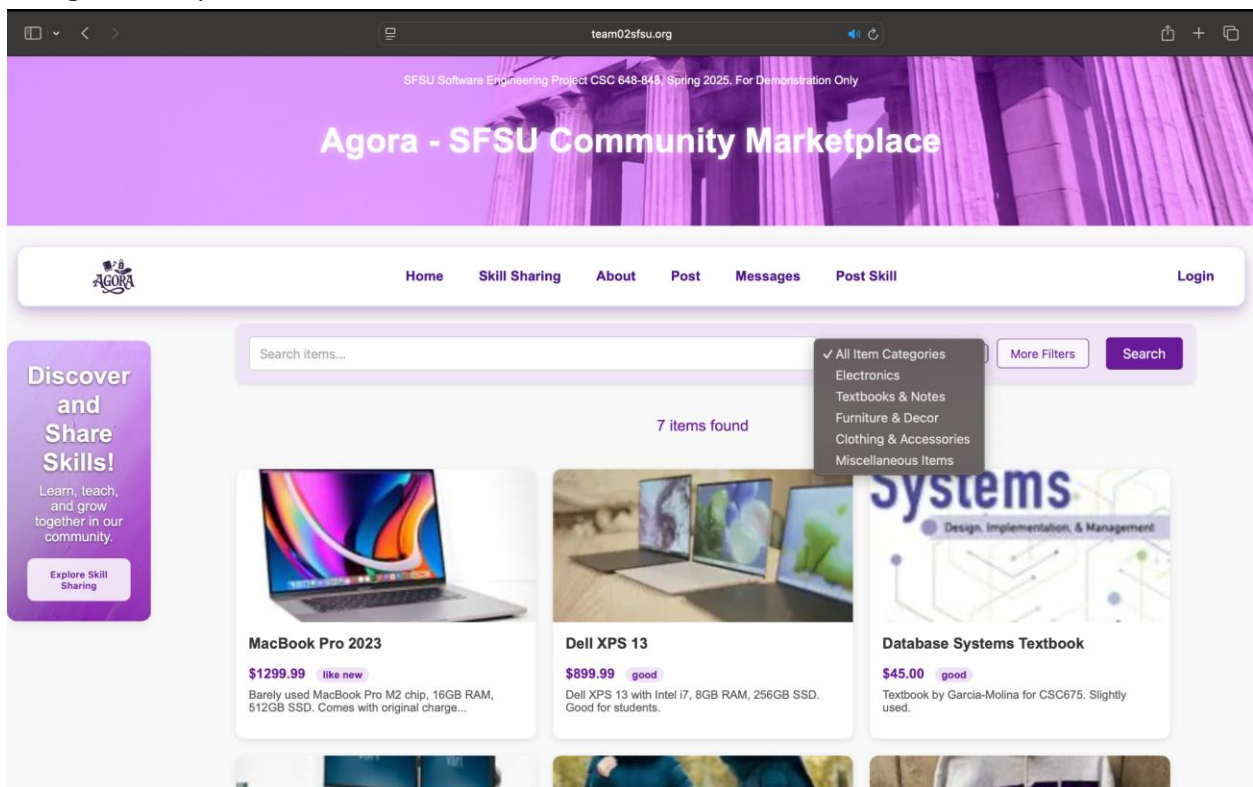
Footer for all pages

### Using the search bar for locating the laptop and the results

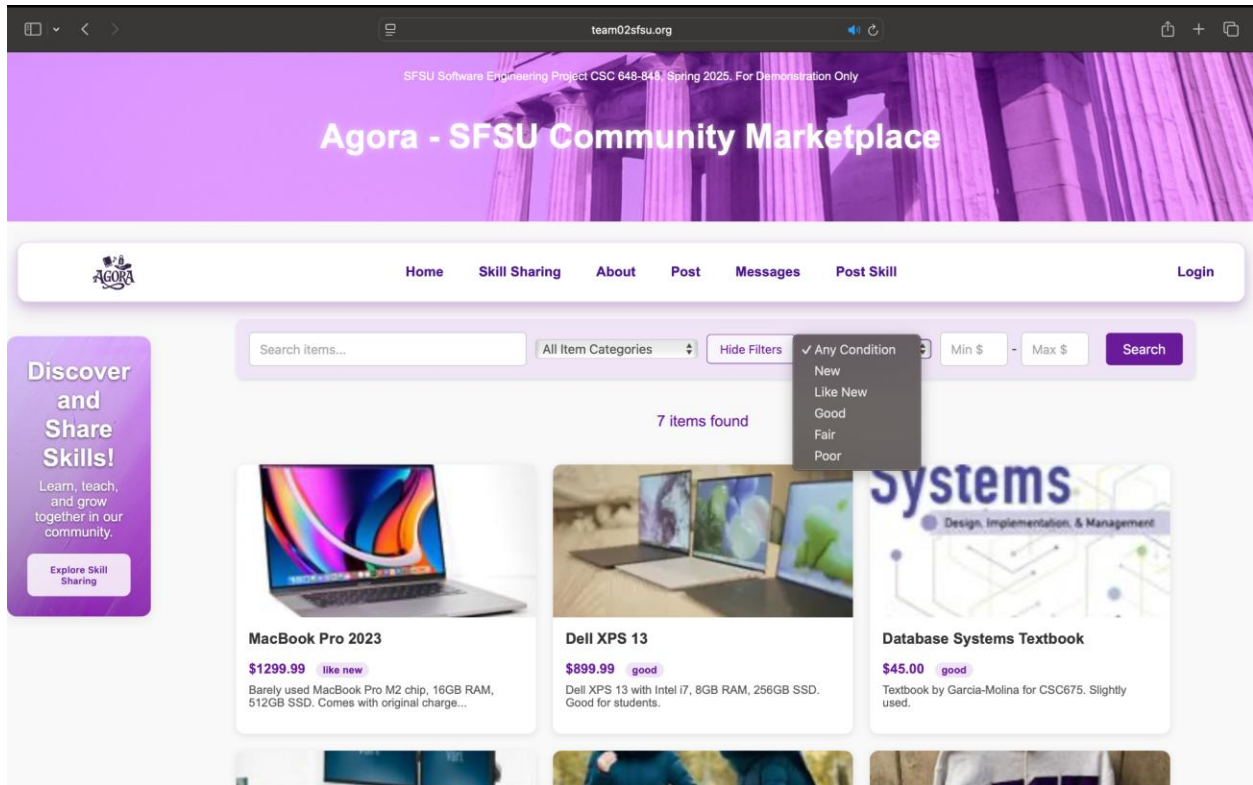




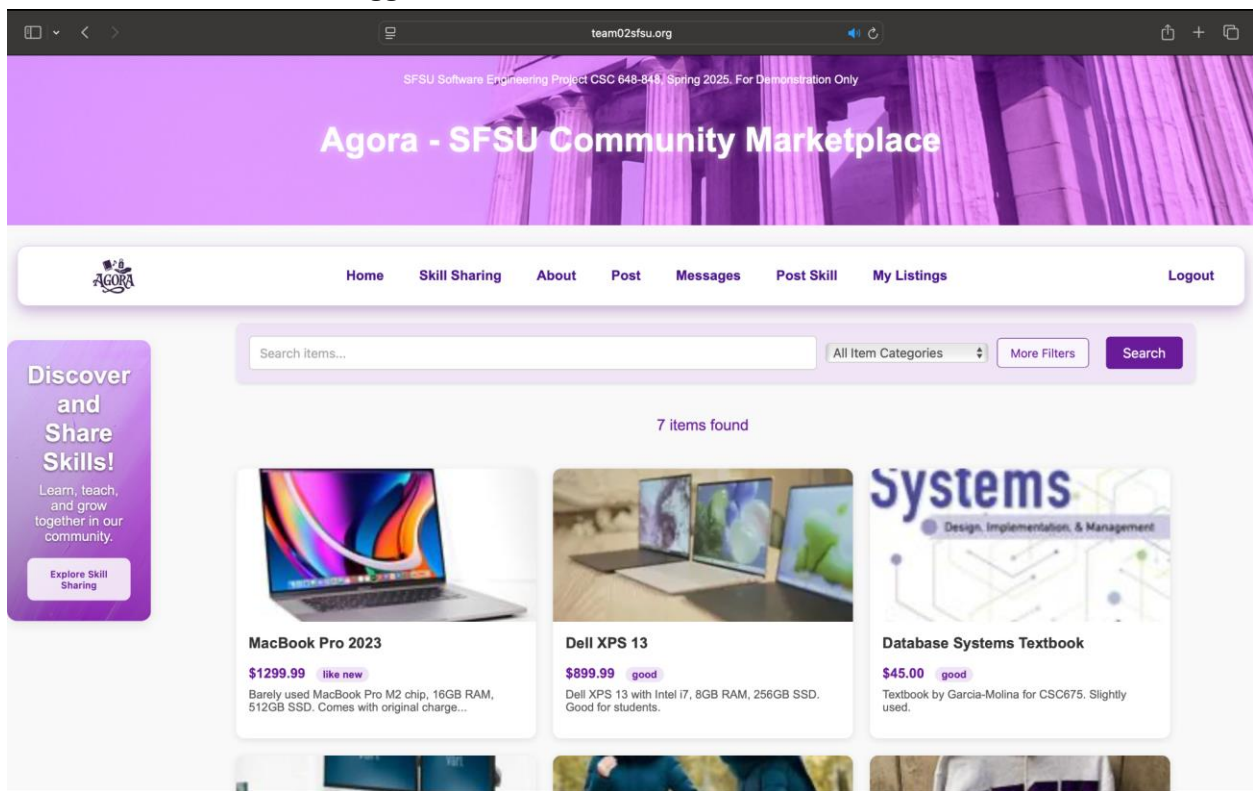
## Categories drop-down menu



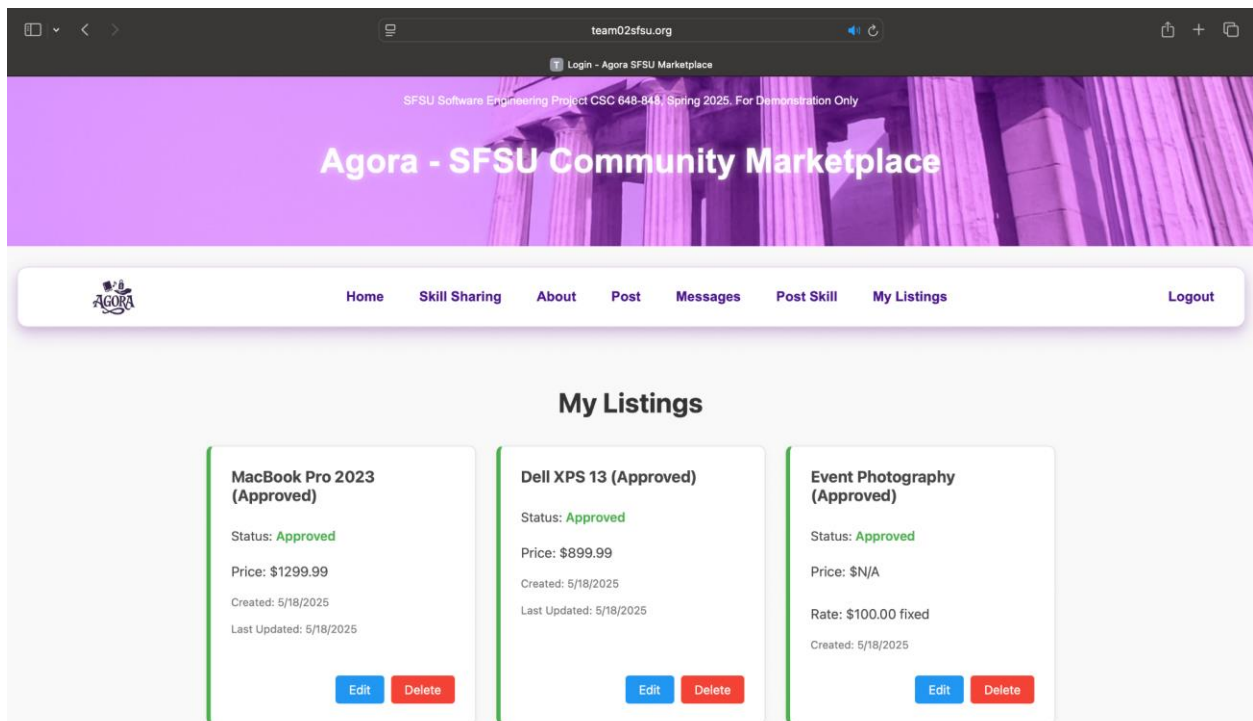
## Filters



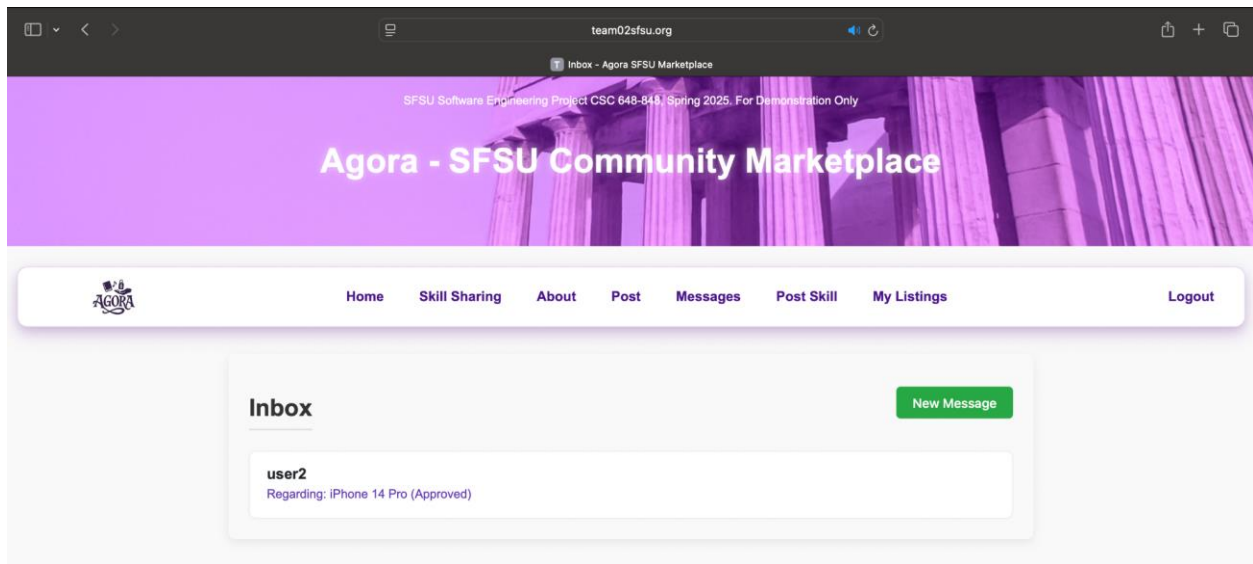
How it looks when user is logged in



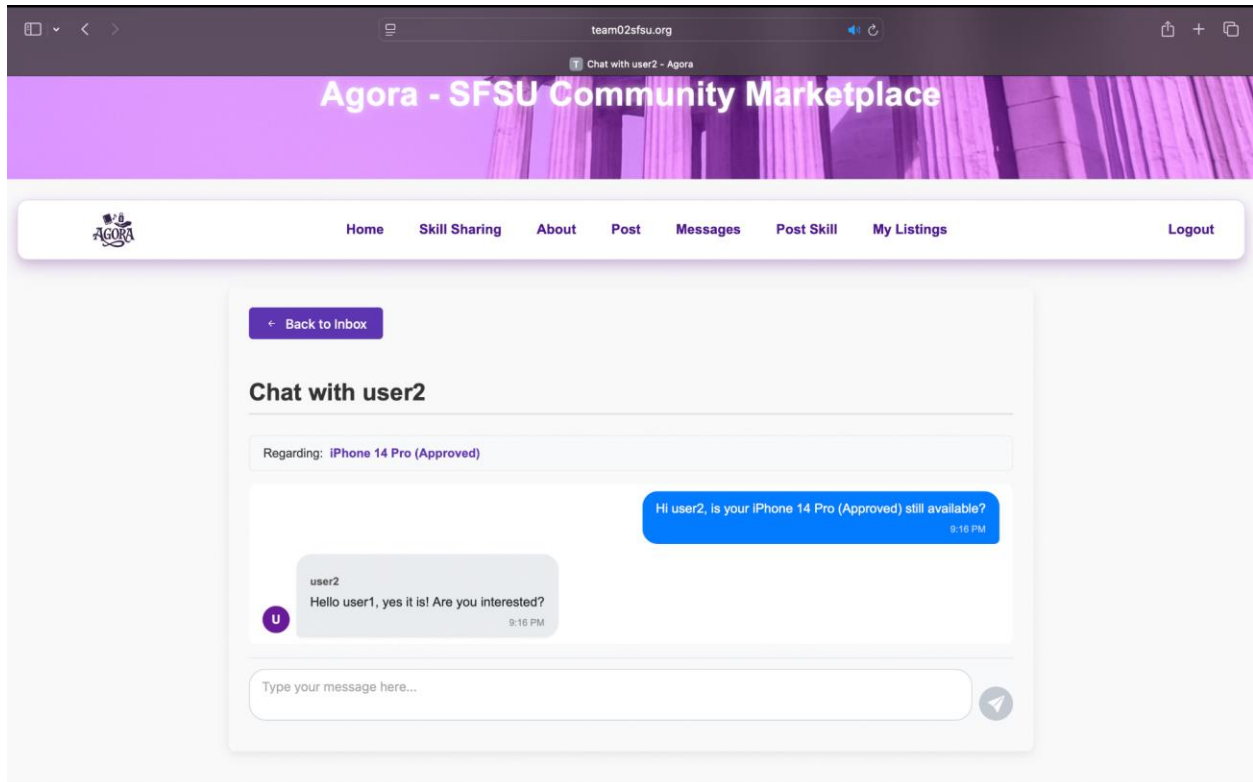
User's Listing page



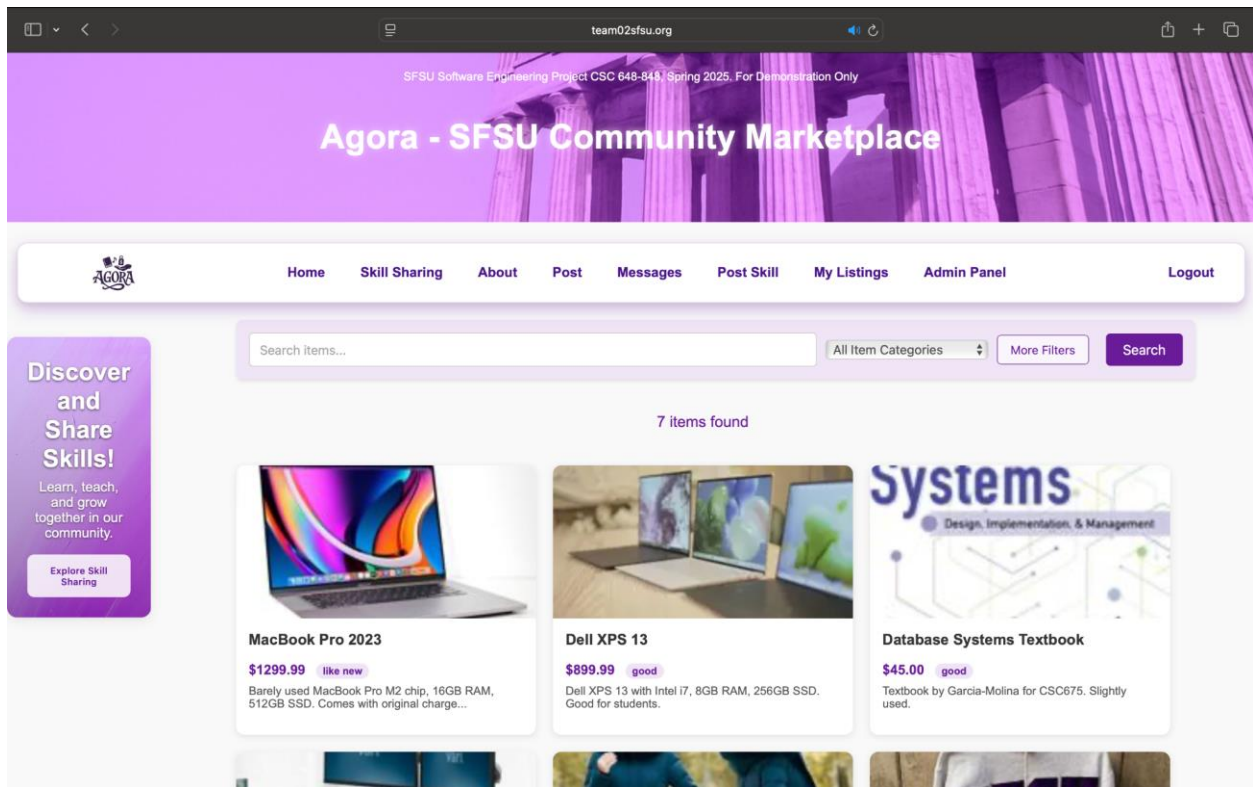
## User's Inbox/Messages to Buyers



## User messaging with Buyer

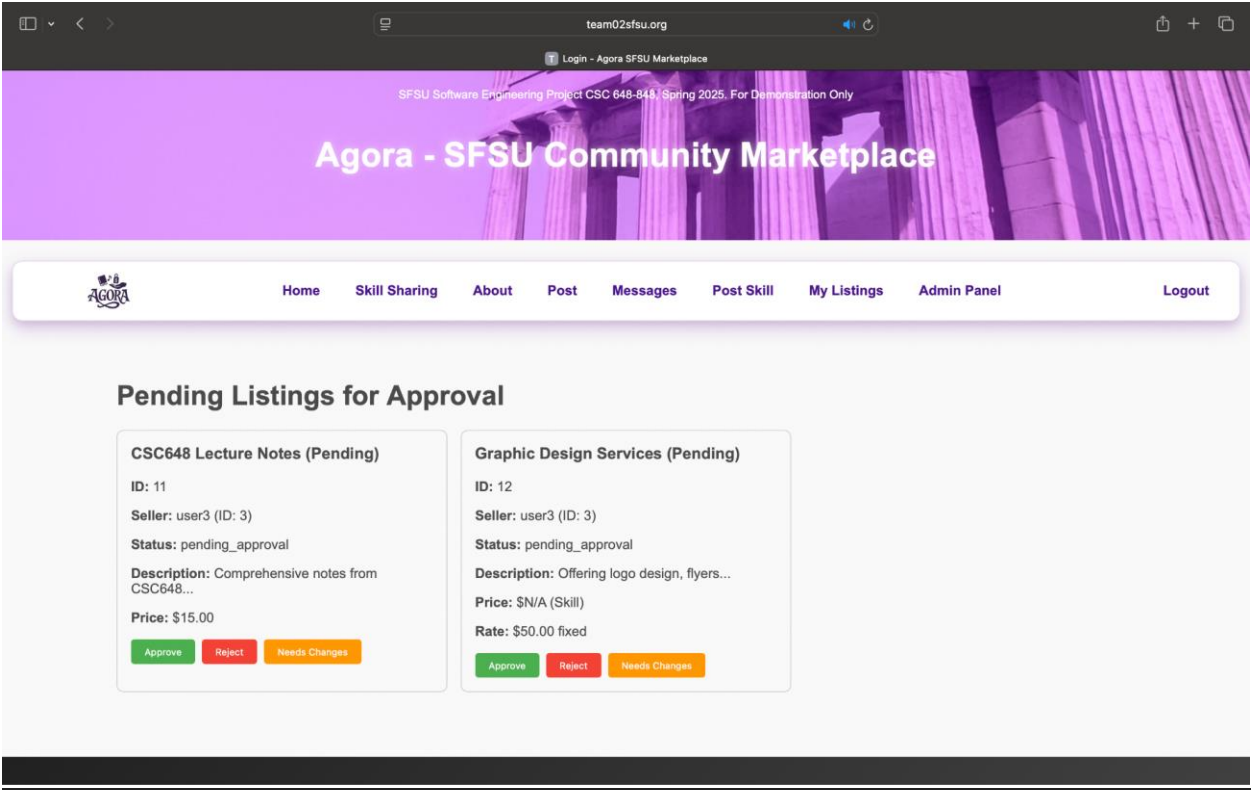


What the admin sees as their dashboard





Admin Panel page to approve/reject post



Database Organization

-SELECT \* FROM users;

	user_id	username	email	hashed_password	is_active	created_at	is_admin	
	1	user1	user1@sfsu.edu	\$2b\$12\$oWg/enUKx2Et4We6Znp1c.vCwTD99...	1	2025-05-19 06:00:54	0	
	2	user2	user2@sfsu.edu	\$2b\$12\$TSFrKS1gEJIC.YXk/IKt3u5AAR.6WEN...	1	2025-05-19 06:00:54	0	
	3	user3	user3@sfsu.edu	\$2b\$12\$DQE/K9bMh1y1J/VyM7FibulXiRTWBil/...	1	2025-05-19 06:00:54	0	
	4	user4	user4@sfsu.edu	\$2b\$12\$dC9ETayBeAhvxCO3ZHQz7OjwllilNYz...	1	2025-05-19 06:00:54	0	
	5	admin1	admin1@sfsu.edu	\$2b\$12\$wXc/Agv22xArcxst6Y6f3uTyQIXxcbFT...	1	2025-05-19 06:00:54	1	
	6	admin2	admin2@sfsu.edu	\$2b\$12\$5bOj96PN80HdFvB5k5pJN.FMSQ1Ub...	1	2025-05-19 06:00:54	1	
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	

-SELECT \* FROM listings;

listing_id	seller_id	title	description	search_keywords	price	category_id	item_conditi...	status
1	1	MacBook Pro 2023	Barely used MacBook Pro M2 chip, 16GB RAM,...	laptop, apple, macbook, M2, electronics	1299.99	1	like_new	approved
2	1	Dell XPS 13	Dell XPS 13 with Intel i7, 8GB RAM, 256GB SS...	laptop, dell, xps, windows, electronics	899.99	1	good	approved
3	2	Database Systems Textbook	Textbook by Garcia-Molina for CSC675. Slightly...	database, textbook, CSC675, SFSU, books	45	2	good	approved
4	4	Standing Desk	Adjustable standing desk, black, 48x30 inches...	desk, standing desk, furniture, home office	120	3	like_new	approved
5	1	Winter Coat (Size M)	Warm winter coat, blue, size medium. Used for...	coat, jacket, winter, clothes, apparel	55	4	good	approved
6	3	Wireless Mouse	Logitech wireless mouse, lightly used. Great for...	mouse, wireless, electronics, accessories	15	1	like_new	sold
7	2	SFSU Hoodie (Size L)	Official SFSU Gators hoodie, purple, size large...	hoodie, sfsu, gators, apparel, clothing	25	4	good	approved
8	3	Desk Lamp	LED desk lamp with adjustable brightness. Black.	lamp, light, desk, furniture, decor	20	3	like_new	approved
9	3	CSC648 Lecture Notes	Comprehensive notes from CSC648, Fall 2024.	notes, CSC648, software engineering, textbooks	15	2	new	pending_appro
10	4	Vintage SFSU T-Shirt	Rare vintage SFSU t-shirt, good condition for its...	vintage, sfsu, t-shirt, clothing, apparel	30	4	good	pending_appro
11	4	Python Programming Tutori...	One-on-one Python programming tutoring for beginners to intermediate. , tutoring, coding, educati...			6	new	approved
12	2	Math Tutoring for Calculus	Experienced tutor offering help with Calculus I &...	math, calculus, tutoring, education, skills		6	new	approved
13	1	Event Photography	Professional event photography for campus eve...	photography, event, skills, creative, services		7	new	approved
14	3	Resume Writing & Review	Get help crafting a professional resume or cover...	resume, career, writing, editing, services, skills		9	new	approved
15	4	Guitar Lessons for Beginners	Learn basic guitar chords and songs. Acoustic o...	guitar, music, lessons, education, skills, worksh...		10	new	approved
16	2	Laptop Repair & Troubles...	Software troubleshooting and minor hardware r...	laptop, repair, tech, IT, services, skills		8	new	pending_appro

-SELECT \* FROM categories;

	category_id	name	parent_id	display_order	is_active	is_skill_cat...	
	1	Electronics	NULL	1	1	0	
	2	Textbooks & Notes	NULL	2	1	0	
	3	Furniture & Decor	NULL	3	1	0	
	4	Clothing & Accessories	NULL	4	1	0	
	5	Miscellaneous Items	NULL	5	1	0	
	6	Tutoring Services	NULL	6	1	1	
	7	Creative Services	NULL	7	1	1	
	8	Technical Services	NULL	8	1	1	
	9	Personal Assistance	NULL	9	1	1	
	10	Workshops & Lessons	NULL	10	1	1	
	NULL	NULL	NULL	NULL	NULL	NULL	

-SELECT \* FROM messages;

	message_id	conversation_...	sender_id	content	created_at	
	1	1	1	Hi user2, is your Database Systems Textbook st...	2025-05-19 06:00:54	
	2	1	2	Hello user1, yes it is! Are you interested?	2025-05-19 06:00:54	
	3	2	3	Hi, I'm interested in your Python tutoring services.	2025-05-19 06:00:54	
	4	2	4	Sure, I'd be happy to help. What are you looking...	2025-05-19 06:00:54	
	NULL	NULL	NULL	NULL	NULL	

-SELECT \* FROM listing\_images;



-DESCRIBE listings;

Field	Type	Null	Key	Default	Extra	
listing_id	int	NO	PRI	NULL	auto_increment	
seller_id	int	NO	MUL	NULL		
title	varchar(200)	NO	MUL	NULL		
description	text	NO		NULL		
search_keywords	varchar(255)	YES		NULL		
price	float	YES		NULL		
category_id	int	NO	MUL	NULL		
item_condition	varchar(20)	NO		NULL		
status	varchar(50)	NO		NULL		
admin_notes	text	YES		NULL		
rate	float	YES		NULL		
rate_type	varchar(50)	YES		NULL		
availability	text	YES		NULL		
is_skill_sharing	tinyint(1)	NO		NULL		
created_at	datetime	NO		now()	DEFAULT_G...	
updated_at	datetime	YES		NULL		
views_count	int	YES		NULL		
buyer_id	int	YES	MUL	NULL		
sold_at	datetime	YES		NULL		

## GitHub organization

Main branches:

1. main
2. backend
3. frontend-dev

All members have access to the main branch with write roles. The GitHub master and the backend lead have admin roles.





csc648-fa25-0104-team02

Private

forked from [CSC-648-SFSU/csc-648-sfsu-2025-fall-souza-01-csc648-base-repo](#)

Watch 0

Fork 0

Star 0



Your main branch isn't protected

Protect this branch from force pushing or deletion, or require status checks before merging. [View documentation](#).

Protect this branch



main

5 Branches

0 Tags

Go to file

Add file

Code

This branch is 175 commits ahead of main.

Contribute

Sync fork



Zia-wang

Navbar Fix: create a hamburger for mobile devices



2e82c75 · 1 hour ago

176 Commits



.github/workflows

fixing JWT token issues

3 days ago



Milestones

Milestone 4 Documentation

yesterday



application

Navbar Fix: create a hamburger for mobile devices

1 hour ago



config/env

added review and rating feature

4 days ago



docs

added messaging feature and made minor ui chnages

last week



scripts

fixed edit listing

10 hours ago



static/images/listings

fixed edit listing

10 hours ago



tests

changed github action workflow

last month



.env

Restore .env and .env.dev without myenv

6 hours ago



.env.dev

Restore .env and .env.dev without myenv

6 hours ago



.env.example

changed from mysql to SQLite

last month



.gitignore

added review and rating feature

4 days ago



LICENSE

Configured nginx to run the html files

3 months ago



README.md

Trigger GitHub Actions workflow test

last month



requirements-dev.txt

changed github action workflow

last month



requirements.txt

added review and rating feature

4 days ago

About



csc-648-sfsu-2025-fall-souza-01-csc648-base-repo created by GitHub Classroom

Readme

MIT license

Activity

Custom properties

0 stars

0 watching

0 forks

Releases

No releases published

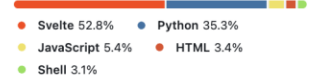
[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

Languages

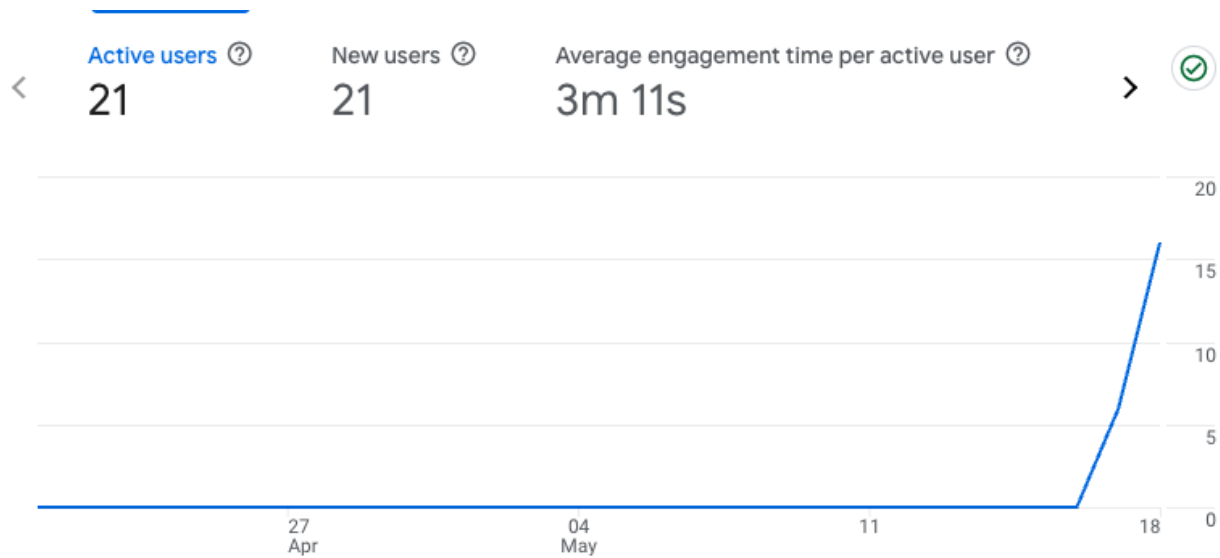


# Google Analytics stats

Google Analytics Report: <https://team02sfsu.org/#/>

## 1. User Activity Overview

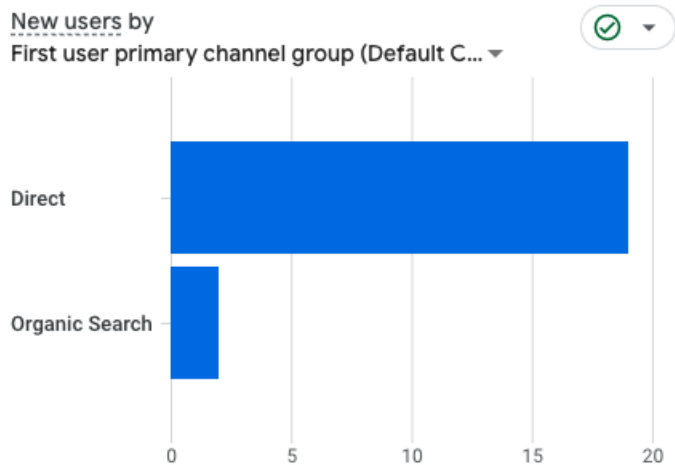
- Active Users:21
- New Users:21
- Average Engagement Time per Active User: 3 minutes 11 seconds



## 2. User Acquisition

New Users by Channel Group:

- Direct: 31
- Organic Search: 12
- Referral: 1



[View user acquisition →](#)

Sessions▼ by  
Session primary ch... ▼

SESSION PRIMARY ...	SESSIONS
Direct	31
Organic Search	12
Referral	1

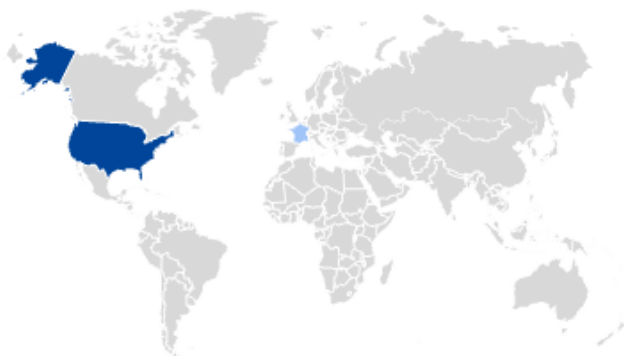
[View traffic acquisition →](#)

### 3. User Demographics & Location

Active Users by Country:

- United States: 21
- France: 1

Active users▼ by Country



COUNTRY	ACTIVE USERS
United States	15
France	1

[View countries →](#)

### 4. Engagement

Views by Page Title and Screen Class:

- CSC 648 Spring 2025 Semest[er Project: 138 views
- Login Agora SFSU Marketplace: 5 views

Views by Page title and screen class



PAGE TITLE AND SCREEN ...	VIEWS
CSC 648 Spring 2025 Semes...	138
Login - Agora SFSU Marketpl...	5

Most frequently viewed pages on the site.

Event Count by Event Name:

- page\_view: 143
- scroll: 90
- user\_engagement: 110
- session\_start: 44
- form\_start: 22
- first\_visit: 21
- view\_search\_results: 1

Event count by Event name



EVENT NAME	EVENT COUNT
page_view	143
scroll	90
user_engagement	80
session_start	44
form_start	22
first_visit	21
view_search_results	1

[View events](#) →

## 5. Summary & Observations

- Most users are acquired directly, suggesting users are familiar with the site or are coming from direct links.
- The "CSC 648 Spring 2025 Semester" page is by far the most viewed, indicating high interest or traffic to this specific content.
- User engagement metrics show a significant number of page views and scroll events relative to the number of sessions.

## Project management

Discord was used to manage the team and project. Weekly meetings were conducted over voice calls. Text based chat for easy communication between team members and tasks were divided up after meetings and checks were made during the week.



# Team member self-assessment and contributions

N

Nathan Sales Delos Reyes

🗨️

To: 🧑🏿 Jeshwanth Ravindra Singh; 🧑🏿 Jose Jesus Ramirez; 🧑🏿 Xiaoxuan Wang; 🧑🏿 Ranbir Singh Atkar

🗨️

Sun 5/18/2025 11:32 PM

Self Assessment Checklist

- Contribution
  - Team Lead
  - Team Management
  - Documentation
  - User Testing
- Number of Github Submissions: 12
  - The number of submissions are low as I was mainly focused on documentation, user testing, and managing the team. Managing the team consisted of facilitating team meetings, task assignment, and check-ins.
- Main Challenges
  - There were a few challenges encountered during the process of the team project. In the coding section, I had trouble coding the front end in the way I envisioned it. I had the general idea of how I wanted the messaging UI to look but didn't know how to implement it. Other than the technical issues, it was simply managing the team. There were scheduling conflicts at times and assigning tasks according to each member's strength took extra thought. Overall, the main challenges were technical skill and practicing my skills as a leader.
- Generative AI
  - The process was improved by the use of GenAI. I used GenAI at times to help with creative decisions and documentation. It provided ideas to build off of and create a template for milestone documents. GenAI helped streamline the more tedious tasks so I could focus on the tasks that were of more importance.
- Improvements
  - In the future, I would practice better team management skills. Weekly meetings were a good start but as the due dates approached we started meeting more often. I believe that had I established a better management system with more frequent check-ins and meetings this project could have been completed even faster.
- Additional Comments
  - My commit count is low as I was focused on the documentation and managing the team. Additionally, I had coded a messaging UI but it didn't end up in the final design.
- Overall Feedback From Team Lead
  - As a team lead, the biggest challenge was balancing my own tasks while also determining each member's task. Ensuring the team was on track with our deliverables, while managing the documentation, testing, and communication was a difficult task.

The use of GenAI has helped lighten the load in the more tedious tasks. It helped me focus on the tasks that required more attention. Additionally, it was a great help in translating the more complex technical explanations into a way that was more understandable to a general audience.

Going forward, I would like to implement a more communicative style of leading. The meetings in class and on Fridays were good but it could have been better. If we had met more often and consistently, the project could have been completed sooner. It would have kept the team more on task and help with keeping each other accountable

JR

Jose Jesus Ramirez

🗨️

To: 🧑🏿 Nathan Sales Delos Reyes; 🧑🏿 Jeshwanth Ravindra Singh; 🧑🏿 Xiaoxuan Wang; 🧑🏿 Ranbir Singh Atkar

🗨️

Mon 5/19/2025 6:32 AM

- My contributions (Front End Assistant)
  - About me pages in html and CSS for the start but was later changed
  - UX Storyboards for all our use cases and documentation for Milestones
  - Frontend login page / register page / footer / rating page
  - Helped Nathan with the frontend posting page
  - Helped separate the posting skill page to be its own page
  - Created the Usability Testing with help from Nathan
  - Got the final screenshots of the product pages
- The total number of commits to the front-end-dev branch was 8. This number is on the low end compared to our teammates because my coding ability was not the best. Most of my work was done on the pages I did for the frontend. It also was on the low end because I waited till the whole page was done to commit.
- One of the primary challenges I faced during the team project was learning to use the front-end framework Svelte, which was entirely new to me and required significant self-teaching. Another notable difficulty involved using Git and GitHub effectively, as my previous experience was limited to basic operations like cloning and pushing repositories. Resolving merge conflicts proved particularly difficult and initially challenging to navigate. Lastly, managing and balancing my responsibilities in this project alongside coursework from other classes required careful organization and consistent planning to ensure I met all deadlines.
- My overall experience with Generative AI (GenAI) was highly positive, especially in supporting specific tasks during the project. I frequently used GenAI tools like ChatGPT to help debug code, particularly when working with Svelte, by quickly generating examples and providing clear explanations that accelerated my learning process. It was also invaluable in resolving Git-related issues, helping me understand and solve complex problems such as merge conflicts. Additionally, GenAI assisted significantly in keeping my tasks organized by suggesting best practices and outlining clear steps, greatly improving my efficiency. Another key contribution was in helping me create detailed storyboards for my use cases, which allowed me to visualize and refine the user experience effectively. Overall, GenAI proved extremely useful, streamlining my workflow and enhancing my productivity throughout the project.
- Next time, based on what I've learned about software engineering management and process, I would maybe pick a framework stack that I knew a bit about so that I would be better for my team. Additionally, applying version control best practices earlier like regular, smaller commits and timely conflict resolution.
- The final thing I would like to mention was the reason why my GitHub commits were only 8. Like I mentioned before, I waited till my whole feature was done for me to commit and push to our GitHub repo. My coding abilities were not the best, so the team lead gave me tasks that better suited my skills and knowledge. I would have loved to be with my team on demo day, but circumstances made it, so I was not able to.

Re: Self Assessment



📧 Jeshwanth Ravindra Singh <jsingh28@sfsu.edu>

Today at 10:29 AM

To: 📧 Xiaoxuan Wang; 📧 Nathan Sales Delos Reyes; 📧 Jose Jesus Ramirez; 📧 Ranbir Singh Atkar

Hello,

### Self-Assessment Checklist

So, for this Agora Marketplace project, I mostly handled the backend stuff, like building out the API with FastAPI and getting the database set up with SQLAlchemy for MySQL and SQLite. I also put together the security parts, you know, with JWTs and password hashing, and did a lot of the system design for how listings, messages, and reviews would work. I was also the lead for setting up the IT infrastructure and writing the deployment script (deploy.sh). I think I've made around 80 commits on GitHub for all this.

A few things were kinda tricky. Getting all the backend services to talk to each other smoothly took some careful planning. Also, making sure the database queries in the marketplace app didn't slow things down as we got more listings and users was a bit of a challenge. It was a balancing act trying to build out the backend features while also thinking about making the whole system scalable and easy to maintain down the line.

I definitely used some generative AI, like ChatGPT and GitHub copilot, to help out. It was pretty good for spitting out basic code structures for FastAPI endpoints or Pydantic schemas, which I'd then tweak to fit what we needed.

Looking back, I probably could've synced up more often with the frontend team to make sure everything was integrating smoothly and catch any problems earlier, even though I was deep in the backend and system architecture for the marketplace. Maybe looking into more advanced CI/CD stuff for automated testing and deployment could be a good next step to make things even more efficient.

Just a couple of extra things: making sure the backend for the marketplace was solid and could scale was a big focus for me. My day job as Lead IT Tech at Associated Students also came in handy, giving me some real-world experience with managing deployments and fixing things when they break, which was pretty useful for this project.

Best,  
Jeshwanth

## Re: Self Assessment



ⓧ Xiaoxuan Wang <xwang35@sfsu.edu>

Today at 7:57 AM

To: ⓧ Nathan Sales Delos Reyes; ⓧ Jeshwanth Ravindra Singh; ⓧ Jose Jesus Ramirez; ⓧ Ranbir Singh Atkar

### Self Assessment Checklist

#### Contributions:

1. GitHub Master
2. GitHub Actions Linter Setup
3. GitHub Actions and Docker Setup for Local Development and Deployment (Legacy)
4. Frontend UI for Skill Sharing
5. Frontend UI Cleanups and Beautification
6. Documentation and GitHub Organization

**Number of GitHub Submissions: 47**

#### Main Challenges:

Learning Svelte was initially challenging but manageable given the project scope. Adjusting to its syntax and structure took some time, but it became more intuitive as the project progressed. Another unexpected challenge was the complexity of frontend work, particularly aligning UI design with user experience. This required balancing technical implementation with visual consistency, which was a valuable learning experience.

#### Generative AI Usage:

I used ChatGPT selectively for coding and writing. For coding, I generated basic structures and templates, then adjusted them to fit project requirements. For writing, I drafted content myself and used AI to refine language and tone. This helped streamline tasks while maintaining clarity and consistency.

#### Improvements:

I could have been more proactive in supporting teammates, especially those working on the backend. While my focus was primarily on frontend tasks and GitHub management, more collaboration could have benefited overall project alignment. This is something I plan to work on in future projects.

#### Additional Comments:

I updated my preferred first name to Zia on Canvas, which may differ from my name sometimes appearing as Xiaoxuan. I hope this doesn't cause any confusion.

---





Ranbir Singh Atkar

To: Nathan Sales Delos Reyes; Jeshwanth Ravindra Singh; Jose Jesus Ramirez; Xiaoxuan Wang

👍 Reply Reply all Forward 📎 📧 ...

Mon 5/19/2025 11:12 AM

Self Assessment Checklist:

#### Contributions

- Served as the Front-End Lead, responsible for organizing and directing front-end development tasks
- Actively participated in frontend planning and discussions
- Contributed to milestone documentation
- Created the initial navigation bar with product listings( Milestone 1)
- Assisted with displaying products in the navigation bar using HTML
- Helped develop the messaging component using Svelte
- Participated in QA testing

#### GitHub Submissions: 1

The number of GitHub submissions was low due to technical issues I encountered with Git. I faced difficulties pushing code to the repository, which prevented me from fully submitting the messaging component. As a result, I collaborated with the backend lead to ensure my work was included in the project.

#### Main Challenges

I faced a few key challenges during this project. One major challenge was setting up the Git repository and becoming familiar with Svelte, the front-end framework we used. Additionally, I experienced issues pushing code to the repository due to Git errors. Despite these technical difficulties, my team was very supportive and helped me troubleshoot the problems. When needed, we found alternate methods to submit my code and continue progress.

#### Generative AI Use

Generative AI (ChatGPT) was helpful during the documentation phase of the project, especially for the QA test planning. At times, I found it difficult to express technical concepts clearly in writing. ChatGPT helped me refine and organize my ideas, allowing me to communicate them more effectively. However, its use was limited primarily to formatting and language support.

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