

SW Engineering CSC648/848 Fall 2023

SF STATE TUTORS .TECH

Team 3

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Milestone 2 Part 1

October 15, 2023

Date Submitted	Date Revised
10/15/2023	10/19/2023

1. Executive Summary

The modern college education is more complex than ever with students expected to take on ever-greater challenges in order to earn their degree. Students struggle to make the key connections they need to make in order to succeed. But what if there were a service that helped bridge the gap between students to enable them to help each other? A resource that enables students with the knowledge and experience to help to offer their services to students in need of that help. And what if that service were geared explicitly towards the students of one university, with services unique to their campus? Enter SF State Tutors.Tech.

SF State Tutors.Tech intends to be THE place where SFSU tutors and SFSU clients connect on the SF State campus. We intend to have an easy onboarding process for tutors whereby they can register and sign up as tutors in one click, or register as students and then onboard as tutors later. We intend searching for tutors to be easy for anyone, with an intuitive display of each tutor's credentials, rates and other information. We plan to enable messaging between tutors and students for registered students. We plan to have SFSU-specific features, such as only allowing students and tutors to register if they have an SFSU email address, and including maps of campus to enable students to meet up with tutors more easily. We also plan to have reviews of tutors by fellow SF State students so students will be able to trust the reputation of their tutor. With these great features we believe we can capture the market for tutors on the SFSU campus.

The SF State Tutors.Tech team is a diverse and dynamic team of software engineers who are eager to deliver this application. We bring a wide range of skills and experience to the table and have the expertise necessary to deliver this project.

2. List of main data items and entities (expand as necessary)

1. Unregistered User

Definition: User who does not have an account or a user that has not logged into their account yet.

Permissions: can make search requests for tutors. Can initiate the process of contacting a tutor for help but cannot launch a request until registered. Can initiate the process of signing up as a tutor but cannot complete the process until registered.

Data Items: None

2. Registered User

Definition: A registered user who has signed up with an email and a password.

Permissions: Inherits permissions from unregistered students. Can send messages to tutors to arrange tutoring. Can post tutoring ads. Can receive messages from students in response to tutoring ads. Can write reviews for tutors.

Data Items:

Username: User's account name, equivalent to their SFSU email address

Password: The user's secret password that they use to access their account

Image: A photo of the user

Account Page: a page identifying the user where they can view their messages, tutor posts, reviews, and account settings

3. Admin

Definition: User who reviews tutoring posts and reviews for appropriateness

Permissions: Admin can access the database via MySQL Workbench as a means of screening tutor posts and reviews. Admin shall only be permitted to review tutor posts and reviews and either mark them as appropriate or delete the user.

Data Items: None

4. Tutoring post

Definition: A post made by a registered user to advertise tutoring services

Data Items:

Name: A field containing the user's real name

Subject: A field keyed to the subjects table

Rate: a field containing the tutor's hourly rate

Description: A field for the tutor to describe their services

Video: (optional) A video of the tutor

Flyer: (optional) A flyer advertising the tutor's services in pdf

CV: (optional) The tutor's resume in pdf

Date: The date of the post

5. Message

Definition: A message sent by a registered user to a tutor to request tutoring services

Data Items:

Student: The registered user initiating the message

Tutor: The tutor receiving the message

Content: The content of the message

Date: The date of the message

Post: The post the message came from

6. Review

Definition: a review of a tutor's services by a registered user

Data Items:

Student: The registered user leaving the review

Tutor: The tutor being reviewed

Rating: a score between 1 and 5
Content: The text content of the review
Date: The date of the review

7. Subjects

Definition: a database table that exists as an enumeration of all options for a tutor to declare themselves qualified in: (MATH, ART, ENGLISH, CS, PHYSICS, HISTORY, SPANISH, ENGINEERING, ANTHROPOLOGY, BIOLOGY, CHEMISTRY, GEOLOGY, THEATER, and others TBD)

3. Functional Requirements - prioritized

Priority 1

Unregistered Users

1. User shall be able to view the home page
2. User shall be able to browse all tutors
3. User shall be able to search for tutors
4. User shall be able to view detailed information on a list of tutors
5. User shall be able to sign up

Registered Users

6. User shall inherit privileges from unregistered users
7. User shall be able to sign in
8. User shall be able to message tutors
9. User shall be able to become a tutor
 - 9.1 User shall be able to submit data including photo, subject, classes taught, bio, video, and pdfs
10. User shall be able to view an account page containing messages sent to them and by them

Admins

11. Admin shall be able to view and edit the database in MySQL Workbench
12. Admin shall be required to approve tutors before their results are visible
13. Admin shall be required to delete accounts that violate terms of service
14. Admin shall only be permitted to approve and delete tutors

Priority 2

Unregistered Users

- 15. User shall be able to view individual pages for tutors listing additional media and reviews
- 16. User shall be able to view a map of the SFSU campus

Registered Users

- 17. User shall inherit all permissions from unregistered users
- 18. User shall be able to change his password
- 19. User shall be able to write reviews of tutors
- 20. User shall be able to view reviews they've written on the account page

Admins

- 21. Admins shall be required to approve reviews before they become visible on the site
- 22. Admins shall be required to delete accounts that abuse the review feature

Priority 3

Unregistered Users

Registered Users

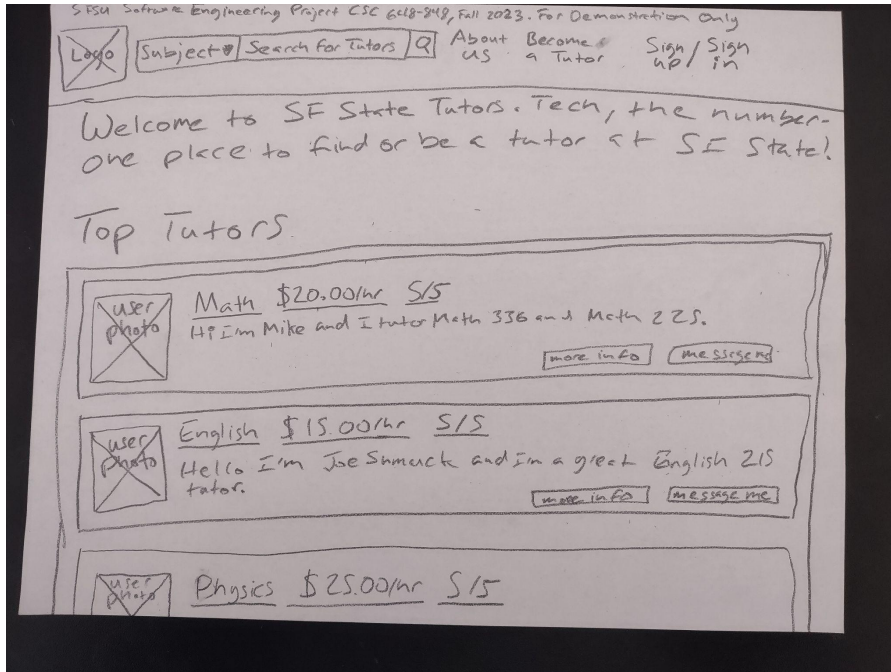
- 23. User shall be able to pin the map to share meetup location info with a tutor or student
- 24. User shall be able to view pins sent by tutors and students
- 25. If user is registered as a tutor, they shall be able to offer group sessions for tutoring
- 26. User shall be able to sign up for group tutoring sessions

Admins

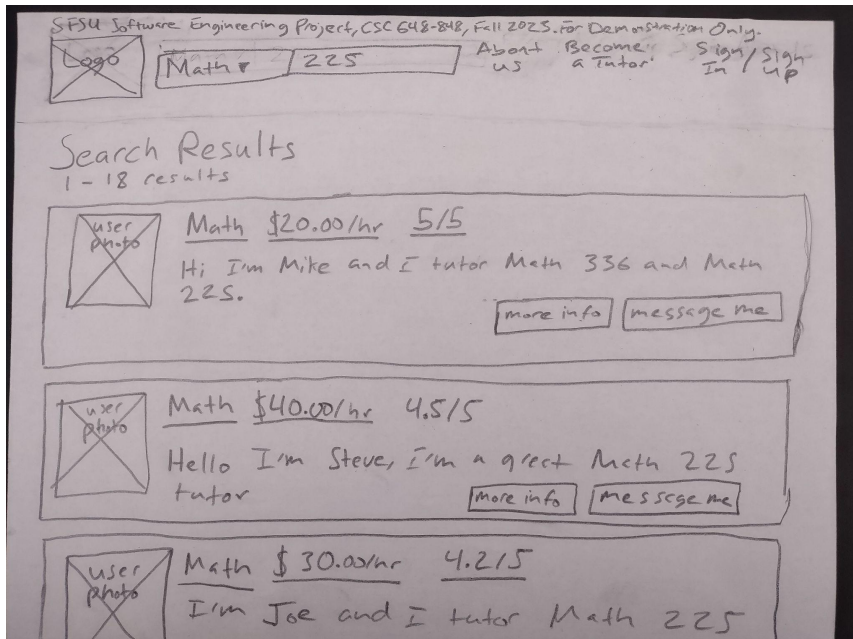
4. UI Storyboards for each main use case

1. Crystal (Student)

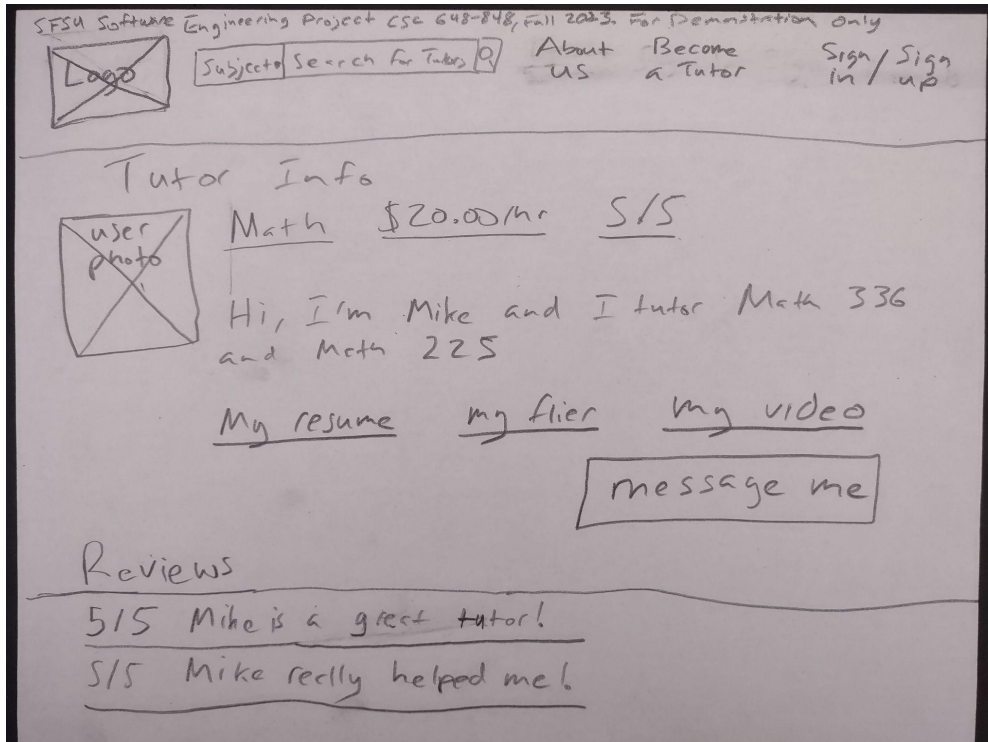
Crystal needs a tutor in math. She comes to the SF State Tutors.Tech Homepage.



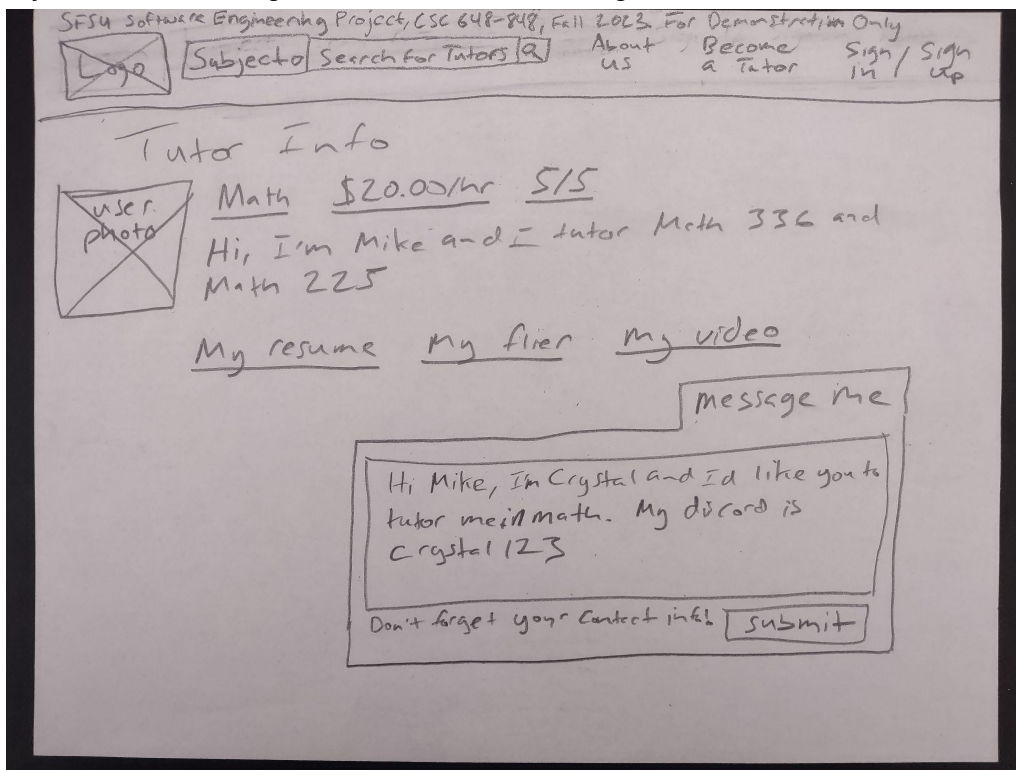
Crystal searches for a tutor for Math 225. She gets several results and evaluates them.



Crystal selects more info from one of the results. On the following screen she views the tutor's resume, flyer, video, and reviews.



Crystal clicks message me and enters a message to send to the tutor.



Crystal hits submit. She's prompted to sign up or sign in.



Subject ▾

Search for Tutors Q

About
us

Become
a Tutor

Sign/Sign
up/in

Sign up or sign in to send
your message

Sign Up

Don't have an account? Sign up!

SFSU email address *

password *

password again *

☐ I agree to the Terms and Conditions

* required

Submit

Sign In

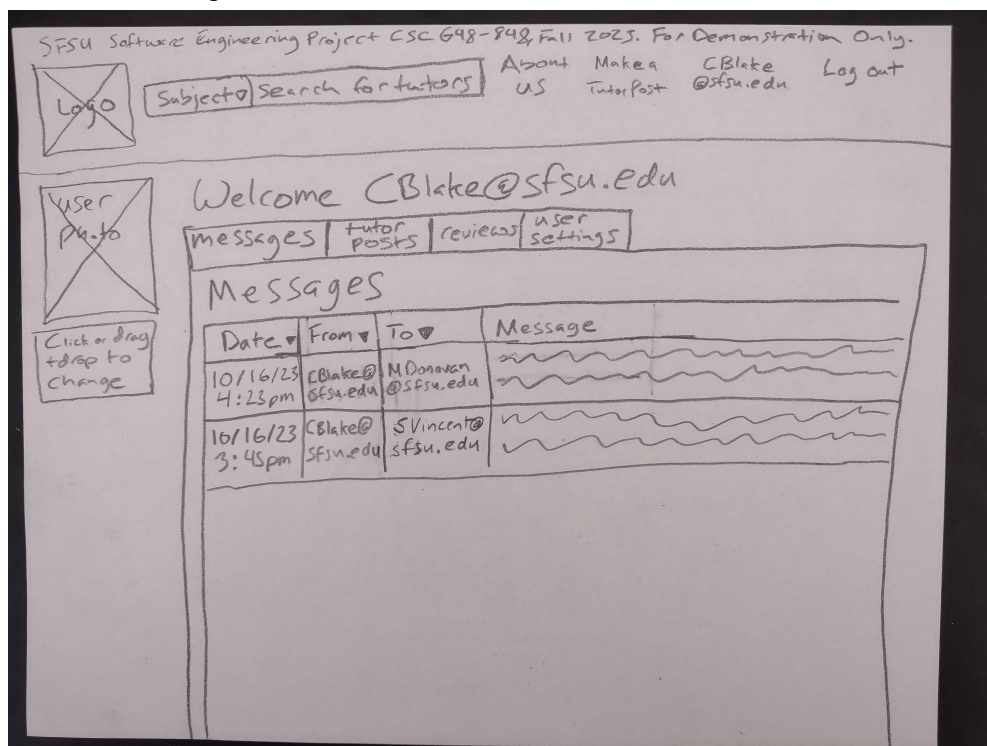
SFSU email address

password

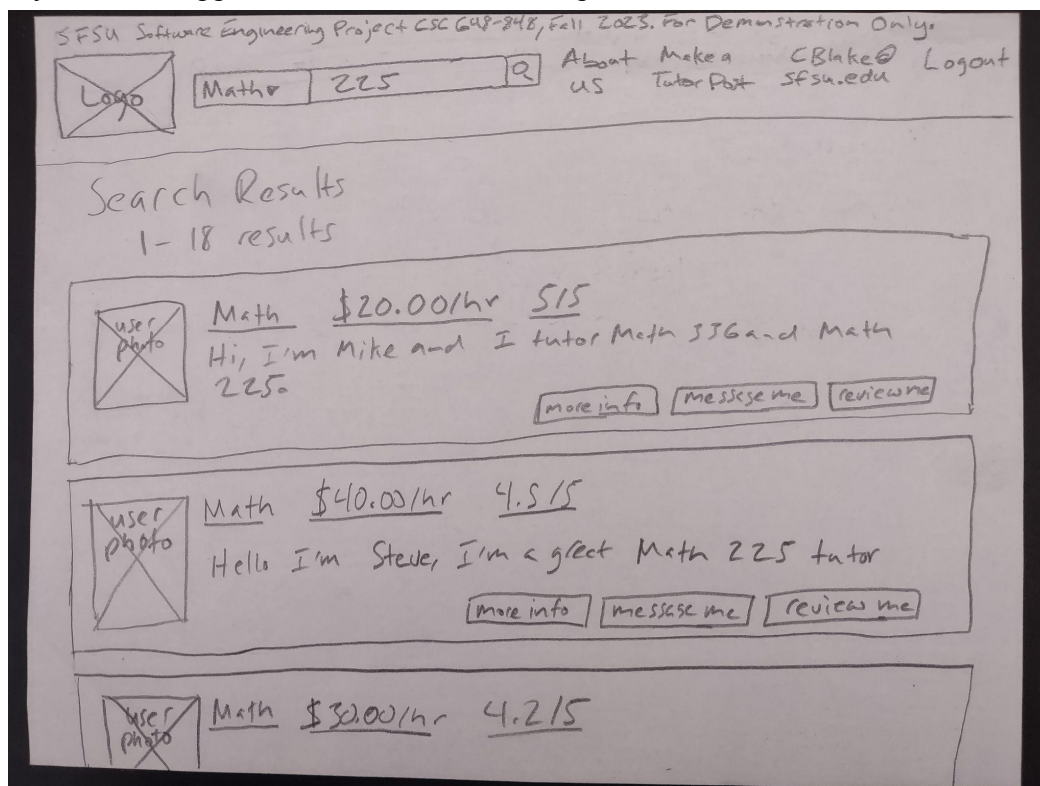
Forgot Password?

Submit

Crystal enters her email and password to sign up. She's taken to a dashboard where she can view her message. Soon her tutor contacts her and she has a successful tutoring session.



Crystal, now logged in, searches for tutors again. She sees she can leave a review.



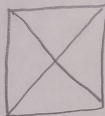
Crystal clicks review me and finds a text box and a ratings box she can use to review the tutor

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Logo Math ▾ 225 Q About Mike A CBlake@ US TutorPost Sfsu.edu Log out

Search Results

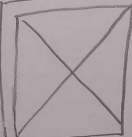
1-18 results



Math \$20.00/hr 5/5
 Hi, I'm Mike and I tutor Math 336 and Math 225.

[more info](#) [message me](#) [review me](#)

Rating/5:
 your review:




Math \$40.00/hr 4.5/5
 Hello I'm Steve, I'm a great Math 225 tutor

[more info](#) [message me](#) [review me](#)

Crystal goes to her dashboard where she can see her review

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Logo Subject ▾ Search for Tutor Q About Mike A CBLake@ US TutorPost Sfsu.edu Log out



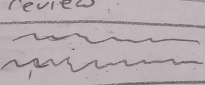
user photo

Click or drag + drop to change image

Welcome CBLake@sfsu.edu

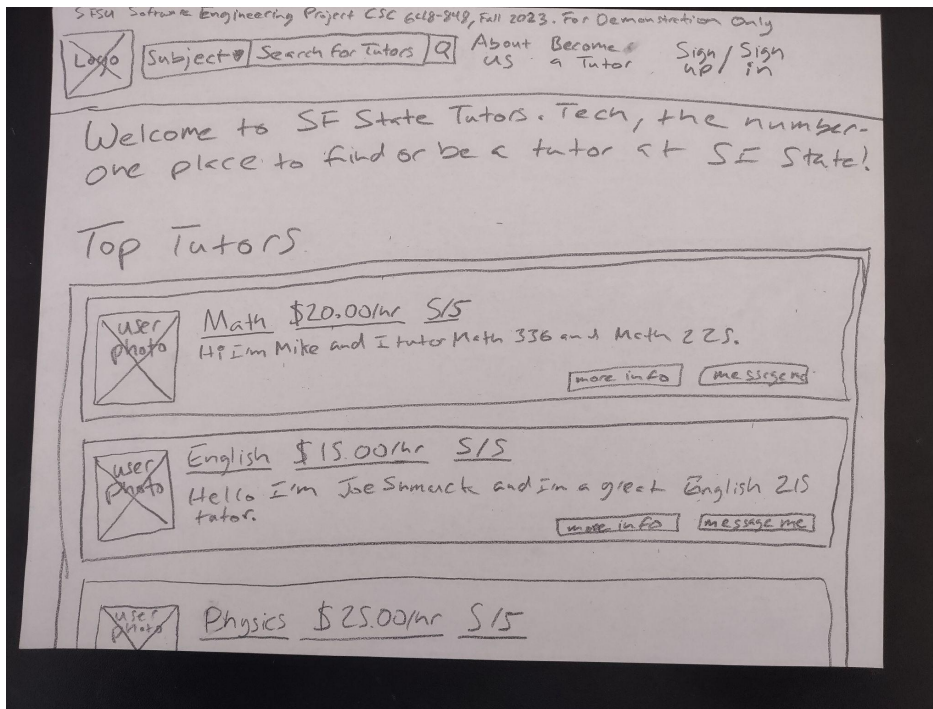
[messages](#) [tutor post](#) [reviews](#) [user settings](#)

Reviews

Date ▾	By ▾	For ▾	rating	review
10/18/23 6:15 pm	CBLake@sfsu.edu	MDonwan@sfsu.edu	5	

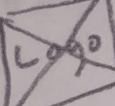
Mike (Tutor)

Mike wants to make some extra money tutoring. He heads to the SF State Tutors.Tech homepage.

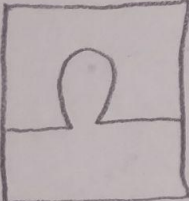


Mike clicks the link "Become a Tutor". He finds a form prompting him to fill out some information.

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 [About US](#) [Become a Tutor](#) [Sign/Sis up/in](#)

Fill out the following to become a tutor!

 your photo*
(click or drag + drop)

your sf state email*

your password*

your password again*

your subject*

your rate*
\$ /hr

your description* (please list course numbers of classes taught)

your resume (click or drag + drop)

your tutoring flier (click or drag + drop)

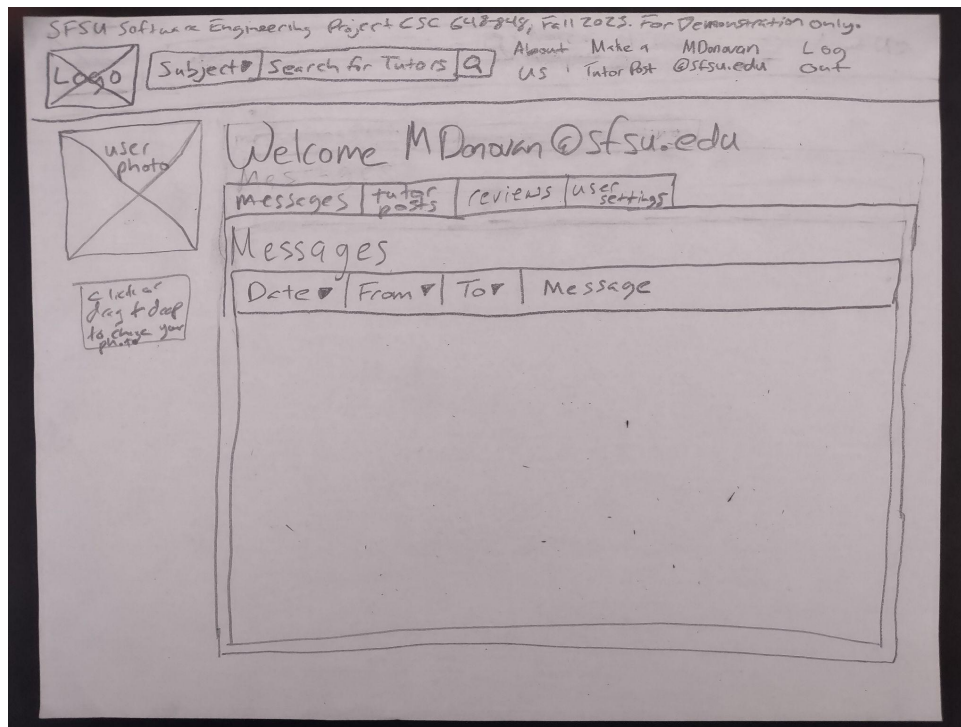
your video (click or drag + drop)

* required

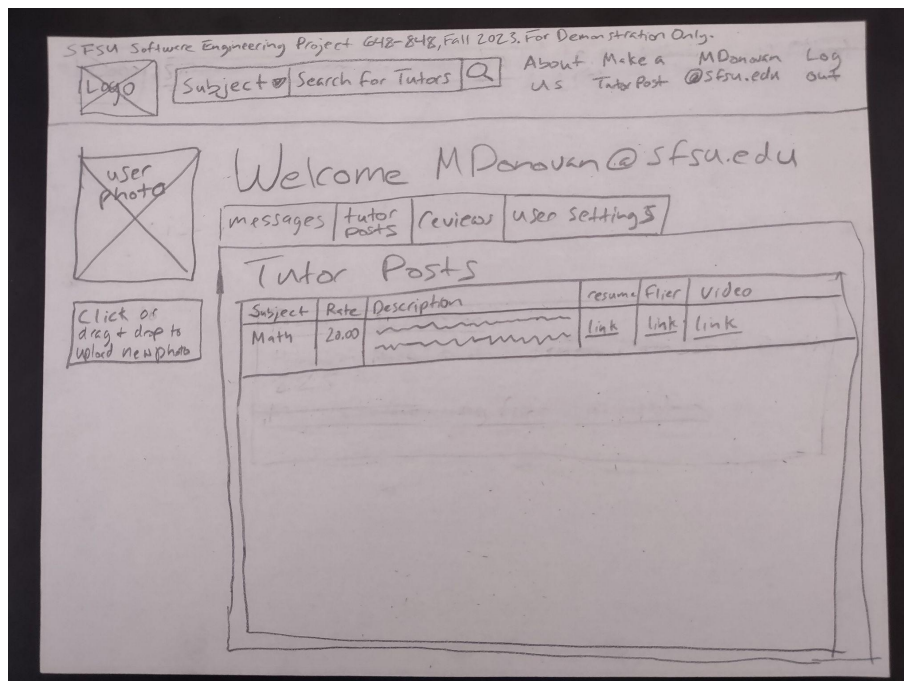
☐ I agree to the terms and conditions*

☐ I understand there will be exam while my post is posted.*

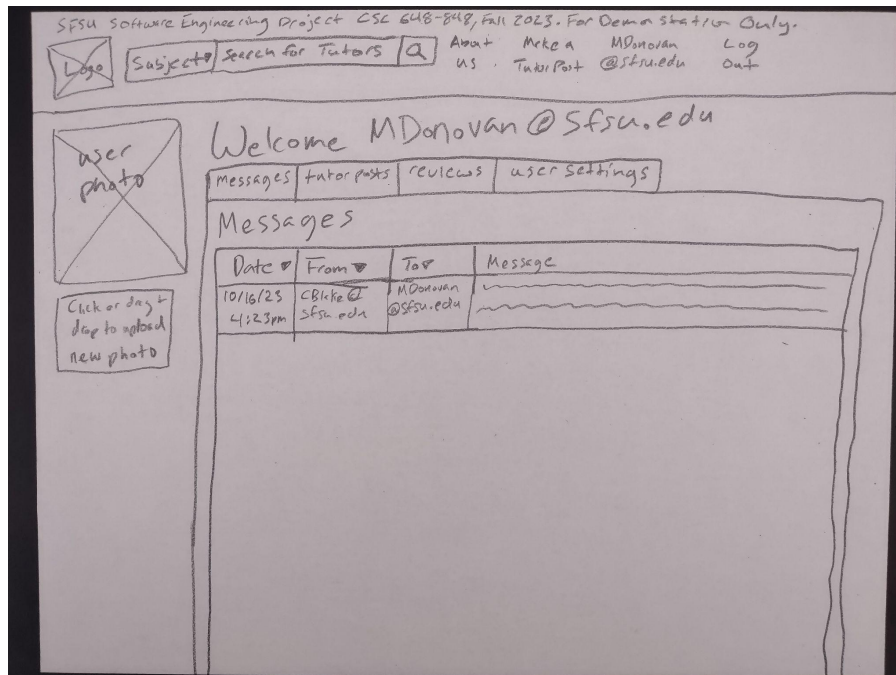
Mike fills out the form, signing up to tutor Math. He hits submit and is taken to his dashboard where he can view his messages and tutor posts.



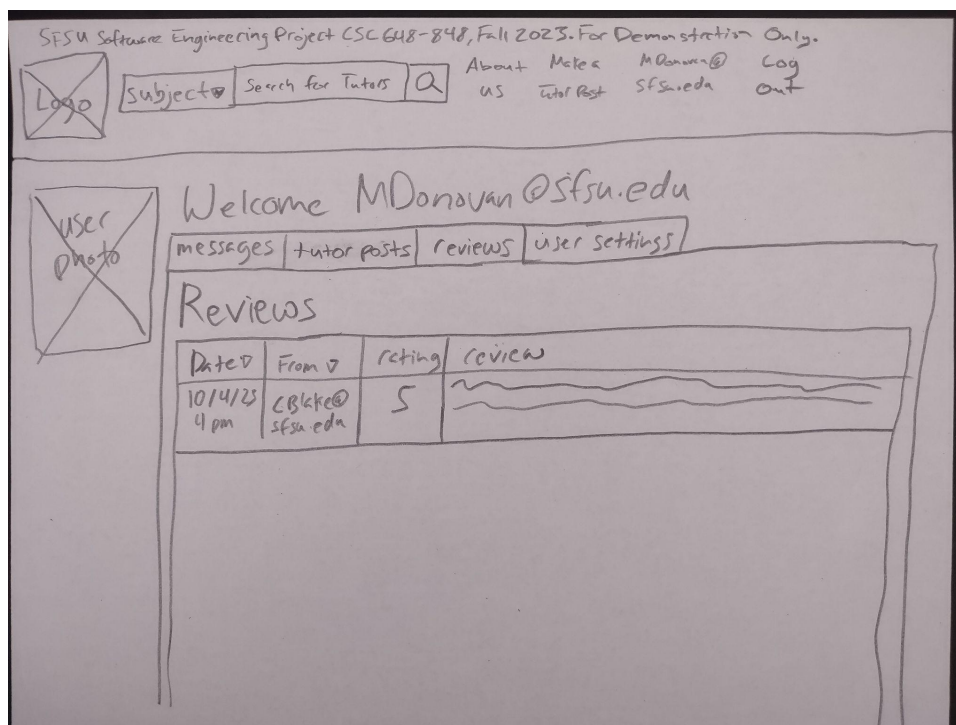
Mike gets his first tutoring post approved. He views it on tutor posts.



Mike gets a message about his tutoring services. He contacts the student and they arrange a successful tutoring session.



Mike's tutoring session goes well. He checks his reviews and sees he's received a positive review.



5. High level Architecture, Database Organization summary only

Database Organization

Table: users

Fields:

id
username
hashed_password
img_url

Table: tutorPosts

Fields:

post_id
tutor_id
subject
name
description
flier_url
cv_url
video_url
is_pending
date_stamp

Table: messages

Fields:

message_id
recipient_id
sender_id
message_text
date_stamp
post_id

Table: tutor_reviews

Fields:

tutor_id
review
rating
reviewer_name
reviewer_id
time_stamp

Table: tutor_subjects

Fields:

id
subject_name

Table: sessions

Fields:

session_id
expires
data

Media Storage

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

Skills risks

Only one teammate with heavy backend experience

One other teammate has some backend experience but hasn't done any backend on this project yet

Much of the team lacks experience with the frontend framework, we've all tried to prepare on our own but we haven't done much coding yet so it's hard to say how successful that preparation has been

Schedule risks

Our most experienced team member has a 40hr/week internship

Technical risks

None known

Teamwork risks

We were late with this milestone, which signals that we have some teamwork issues.

Legal/content risks

None known

How to resolve our risks

We intend to resolve the skill risk with additional training, and the scheduling risk by offloading as much work from that team member as possible. We intend to resolve our lateness by being more conscientious of deadlines in the future.

7. Project management

For project management we intend to use Trello, plus regular chat communication over Discord and regular voice meetings over Discord to coordinate the team.

8. Use of ChatGPT and like tools (optional)

We did not use ChatGPT in this milestone.