

SW Engineering CSC648-848 Fall 2023

Gators Tutor Project

Team 5

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Milestone 2

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Executive Summary

Project name:

Gators Tutor

Project Summary:

Gators Tutor is a user-friendly online tutoring platform exclusively designed for San Francisco State University (SFSU) students. Our primary goal is to empower SFSU students by granting them access to experienced tutors across various subjects. Our unwavering commitment to academic excellence is reflected in our mission to enhance the educational journey of every SFSU student through top-notch tutoring services.

One distinctive feature of Gators Tutor is SFSU-specific search. For example, when you search for tutors on Gators Tutor, you can filter results by SFSU-specific classes, ensuring that you receive personalized support that aligns with your academic curriculum. Whether you're seeking assistance in mathematics, science, business, languages, writing, or other subjects, our platform is finely tuned to cater to the specific academic needs of SFSU students. But we don't stop there. At Gators Tutor, we believe in transparency and accountability. That's why we allow students to rate their tutors. This feature lets you share your experiences and help other students make informed decisions when selecting a tutor. It's our way of ensuring students receive the best support on their academic journey.

Moreover, we also empower SFSU students not only to seek academic assistance but also to become tutors themselves. If you excel in a particular subject, you can join our ranks of esteemed tutors, collaborate with your peers, and earn additional income while helping fellow students excel in their studies.

Our dedicated team is comprised of individuals who are passionate about education and committed to the SFSU community. We strive to create an efficient, simple, and user-friendly platform for our fellow students, equipping them with the tools needed to achieve their educational goals.

Overall, our platform is the perfect place for any SFSU student seeking assistance in their classes or wanting to help others and earn extra money. Gators Tutor is your comprehensive academic support destination. Our user-friendly interface makes signing up as a tutor, searching for a tutor, or scheduling online tutoring sessions effortless, ensuring academic support is always within your reach.

List of main data items and entities

Entities:

User Types:

- Admins
 - Control what gets put on the site.
- Registered Users
 - Registered Users are students or tutors that made an account.
- Non Registered Users
 - Non registered users are students or tutors that have not made an account but are viewing the site.

Tutor Profile:

- Personal details
 - Name, age, contact information
- Educational background
 - Grade level, classes taken, major
- Availability
 - Time and Dates

Content:

- Study materials (textbooks, notes, practice questions)
- Tutor-created content (lesson plans, quizzes)
- User-generated content (questions, answers, explanations)

Ratings and Reviews:

- User ratings for tutors and study materials

- Written reviews and feedback

Messaging and Notifications:

- On site messages

Search:

- Search queries and filters
- Courses available

Account Settings:

- Privacy settings
- Email preferences
- Password management

Data Items:**User Data:**

- User IDs
- Usernames
- Email addresses
- Passwords
- User Accounts

Content Data:

- Content IDs
- Content types (text, video, quiz)
- Content ratings and reviews
- Content tags and categories

Rating and Review Data:

- Rating scores
- Written reviews

Messaging Data:

- Sender Information
- Time and Date
- Tutor selected

List of functional requirements

Priority 1:

Unregistered users:

1. Unregistered Users (students) shall be able to search for tutors by major or SFSU-specific subject;
2. Unregistered Users (students) shall be able to view details about tutors, view their pricing, and read reviews, if any;
3. Unregistered Users (students or tutors) shall be able to register.

Registered users:

4. Registered Users shall inherit all functions of Unregistered Users;
5. Registered Users (students) shall be able to send messages to tutors;
6. Registered Users (students) shall be able to book appointments with tutors;
7. Registered Users (students) shall be able to apply to become a tutor;
8. Registered Users (tutors) shall be able to create profiles with their details (major, qualification, price, etc.);

Admin:

9. Admins shall be required to approve tutors before tutors are added to the platform;
10. Admins shall be required to approve all posts before they go live on the platform;
11. Admins shall be able to delete tutor posts.

Priority 2:**Registered users:**

- 12. Registered Users (students) shall be able to write reviews on tutors;
- 13. Registered Users (tutors) shall be able to post available time slots for tutoring;

Admin:

- 14. Admins shall be required to approve student reviews before they go live on the platform;

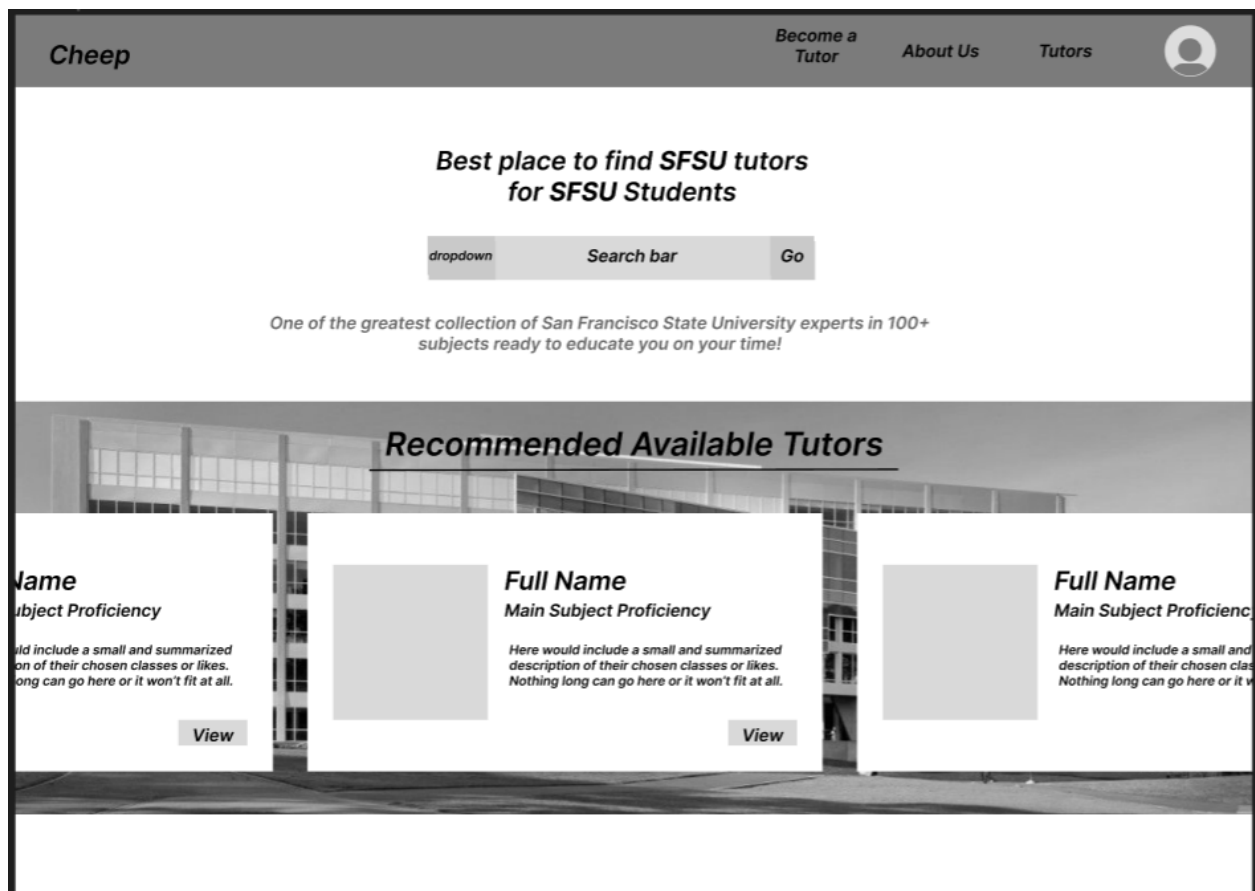
UI Storyboards

Use Case 1: Student Searching for a Tutor

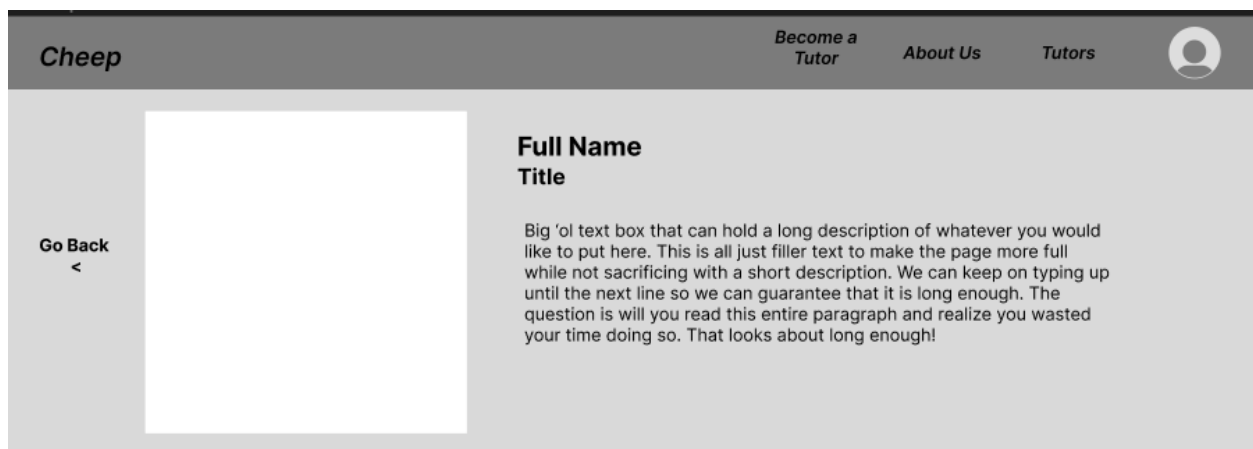
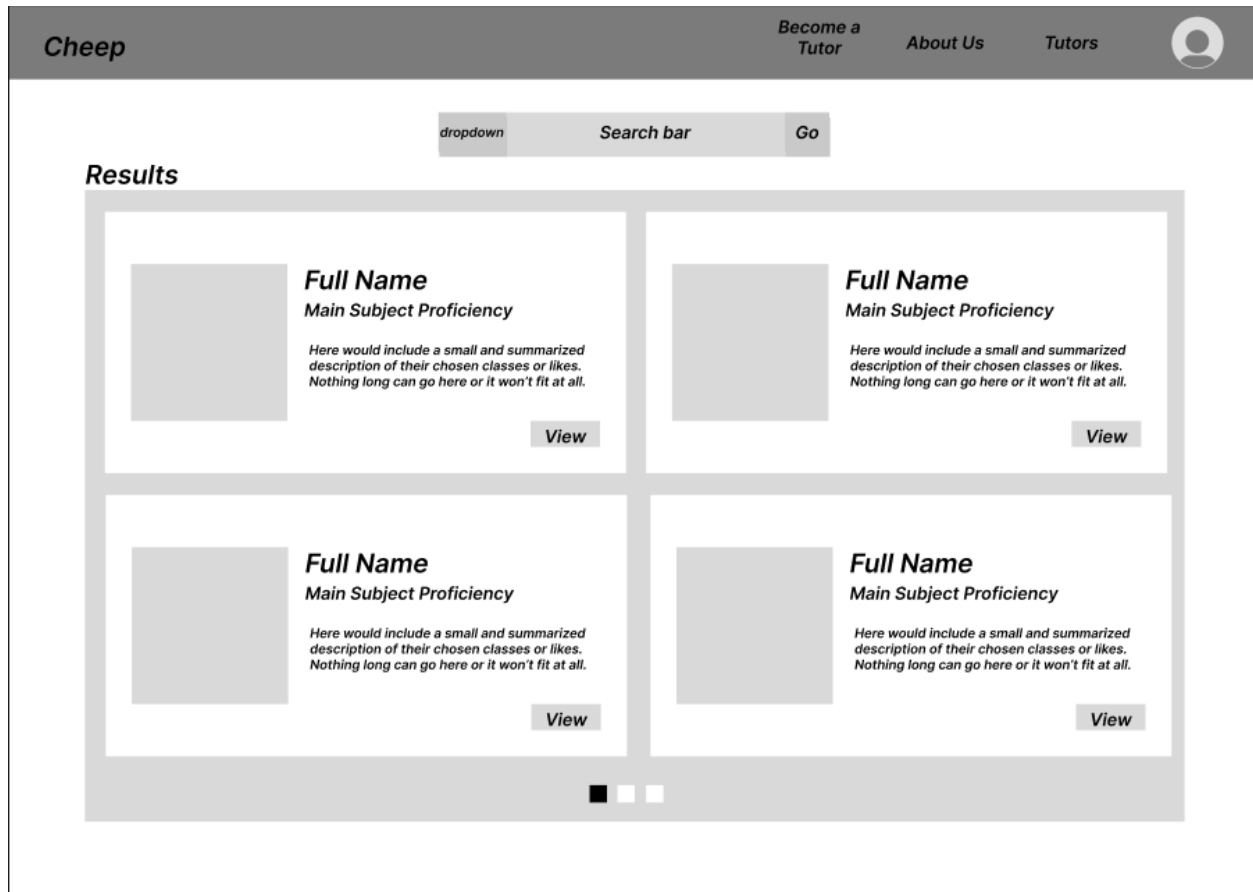
Use Case Description: Emily is a first-generation college student. She's determined to succeed in her psychology major but needs help to grasp the foundational concepts. To do so she is searching for a tutor on the Gators Tutor website using her desktop computer.

Steps:

1. Emily opens her web browser and visits the Gators Tutor website. She uses the search function to enter her psychology class's specific course name/ID.



2. The website displays a list of available psychology tutors. Emily reviews tutor profiles and qualifications, viewing them on her desktop screen.



- After considering several profiles, she selects a tutor who matches her needs. She decided to sign up and started creating her student profile. After that, she can message a tutor.

The screenshot shows the Cheep website's sign-up interface. At the top, a dark grey navigation bar contains the 'Cheep' logo on the left and links for 'Become a Tutor', 'About Us', and 'Tutors' on the right, followed by a user profile icon. Below the navigation bar, the heading 'Sign up as a Student' is centered and underlined. The form consists of five stacked input fields, each with a grey background and a light grey border. The labels for these fields are: '*Full Name', '*Email Address (SFSU)', '*Student ID #', '*Password', and '*Confirm Password'. Below the input fields is a checkbox labeled 'Accept Terms and Conditions'. At the bottom of the form is a dark grey button with a circular icon on the left and the text 'Sign up' on the right.

Use Case 2: Student Sign-In to his account

Emily has used Gators Tutor in the past and had a positive experience with her previous tutor. She needs help again with her new psychology class.

Steps:


- Emily opens her web browser and navigates to the Gators Tutor website.

Cheep

Become a Tutor

About Us

Tutors



Best place to find SFSU tutors
for SFSU Students

dropdown

Search bar

Go

One of the greatest collection of San Francisco State University experts in 100+ subjects ready to educate you on your time!


Recommended Available Tutors

Name

Subject Proficiency

ould include a small and summarized
on of their chosen classes or likes.
long can go here or it won't fit at all.

View




Full Name

Main Subject Proficiency

Here would include a small and summarized
description of their chosen classes or likes.
Nothing long can go here or it won't fit at all.

View



Full Name

Main Subject Proficiency

Here would include a small and
description of their chosen clas
Nothing long can go here or it v

2. Instead of searching for a tutor from scratch, she logs in to her existing account, where she can message her previous tutor or find a new one.

Student

Tutor

X

Sign In To Your Account

Username:

Password:

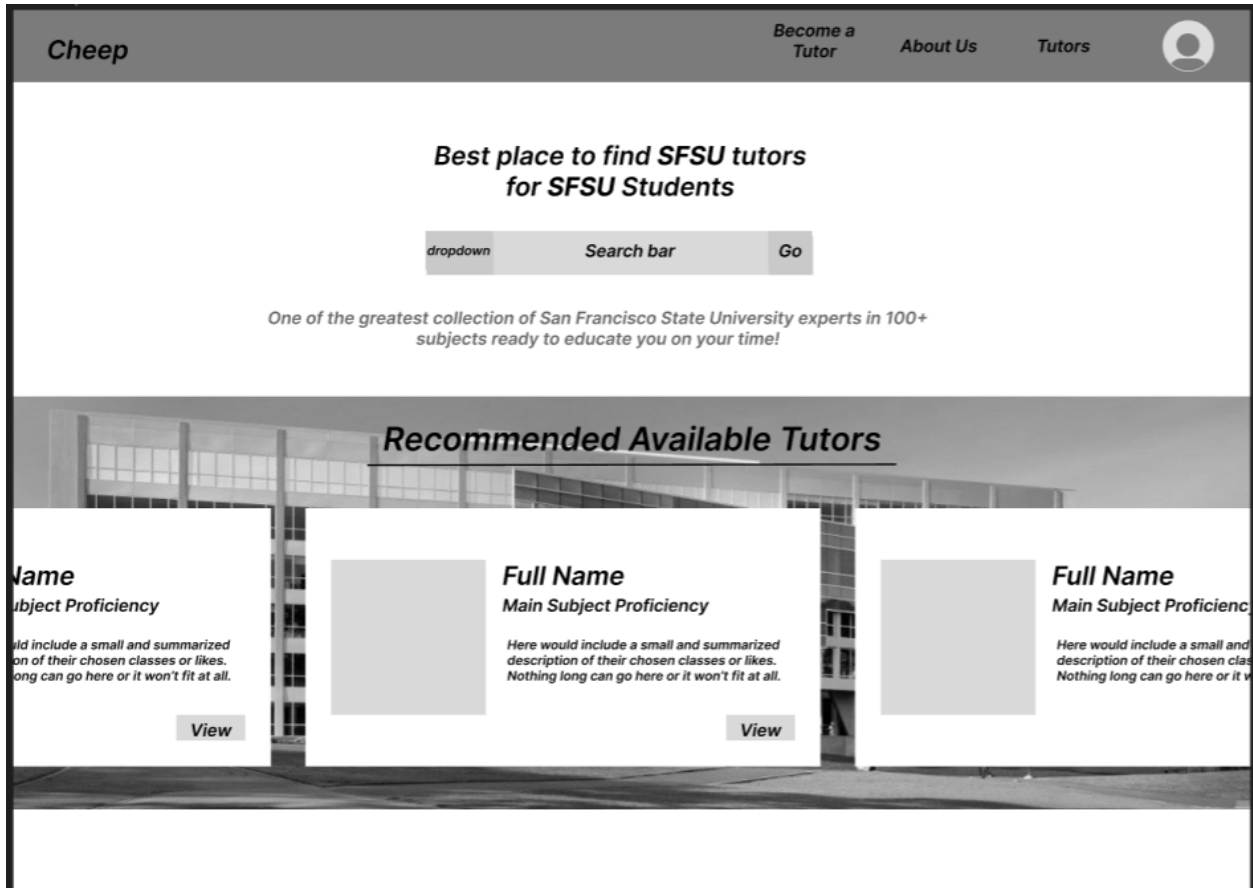
Login

Dont have an account? Sign Up
Forgot Password

Use Case 3: Tutor Creating a Profile

Use Case Description: Alex is an ambitious student who has excelled academically at SFSU. He is a senior biology major aspiring to tutor and wants to create his tutor profile on the Gators Tutor website using his desktop computer.


1. Alex opens his web browser and visits the Gators Tutor website.



2. He navigates to the "Became a Tutor" section, and the website guides him through the tutor profile creation process. Alex provides his academic background, including his major and strong academic record, on his desktop screen. He uploaded his academic certificates showing his qualifications. He highlights his passion for teaching and previous tutoring experience in the

description section. After completing the profile, Alex eagerly awaits approval from the platform.

Cheep

Become a TutorAbout UsTutors

Sign up as a Tutor

***First Name**

***Last Name**

Topics (dropdown)

***Email Address (SFSU)**

***Student ID #**

***Password**

Search keys

Description (Limit 500 Chars)

CV

^Click to upload file (type: .pdf)

Media (photos/videos)

^Click to upload file (type: .jpeg, .png, .jpg, .mov, .mp4)

☐ Accept Terms and Conditions

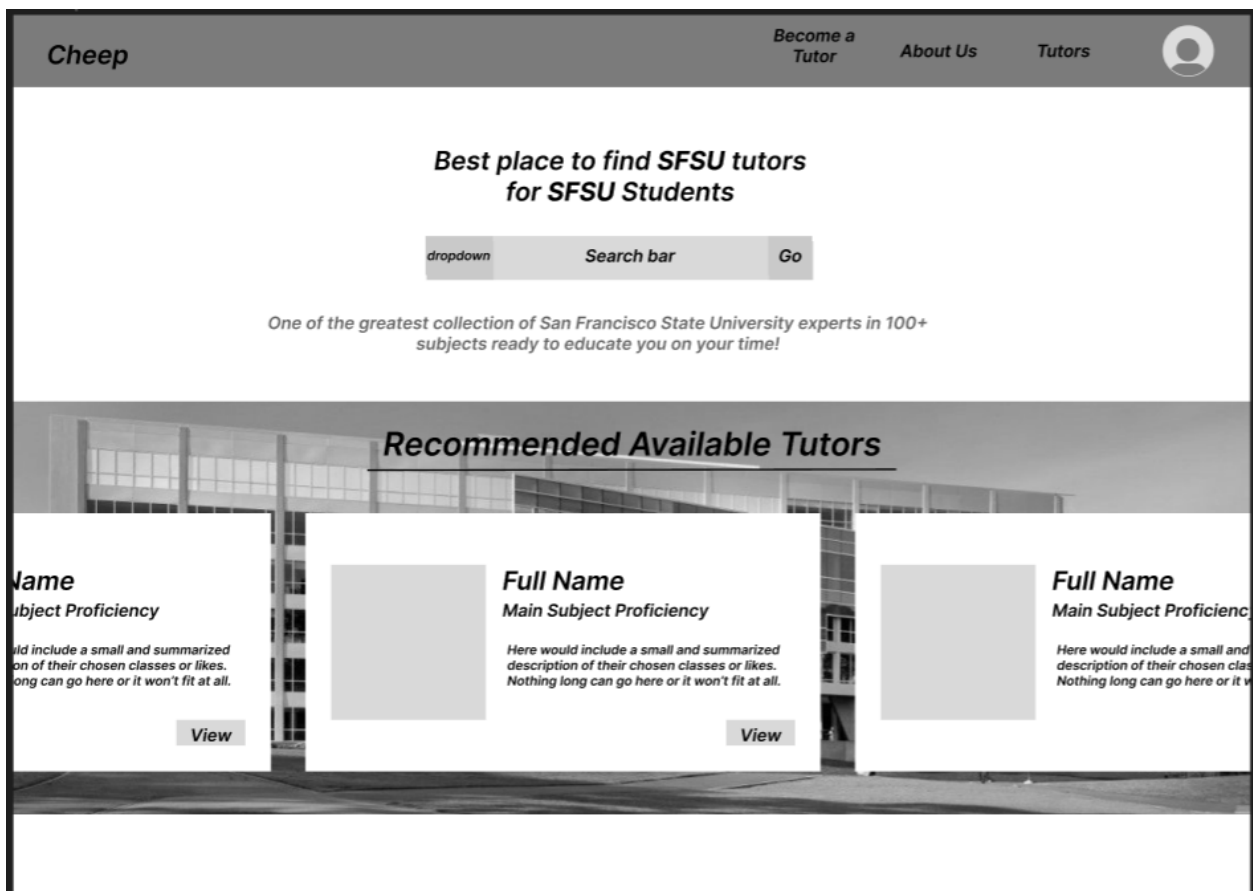
Sign up

Use Case 6: User Resetting Forgotten Password

Use Case Description: Alex, a student, has forgotten his password to access the Gators Tutor platform via his desktop computer. He needs to reset his password to regain access to his account.

Steps:

1. Alex opens his web browser and visits the Gators Tutor website on his desktop.



2. He attempts to log in but realizes he has forgotten his password. On the login page, he clicks on the "Forgot Password" link.

Student

Tutor

X

Sign In To Your Account

Username:

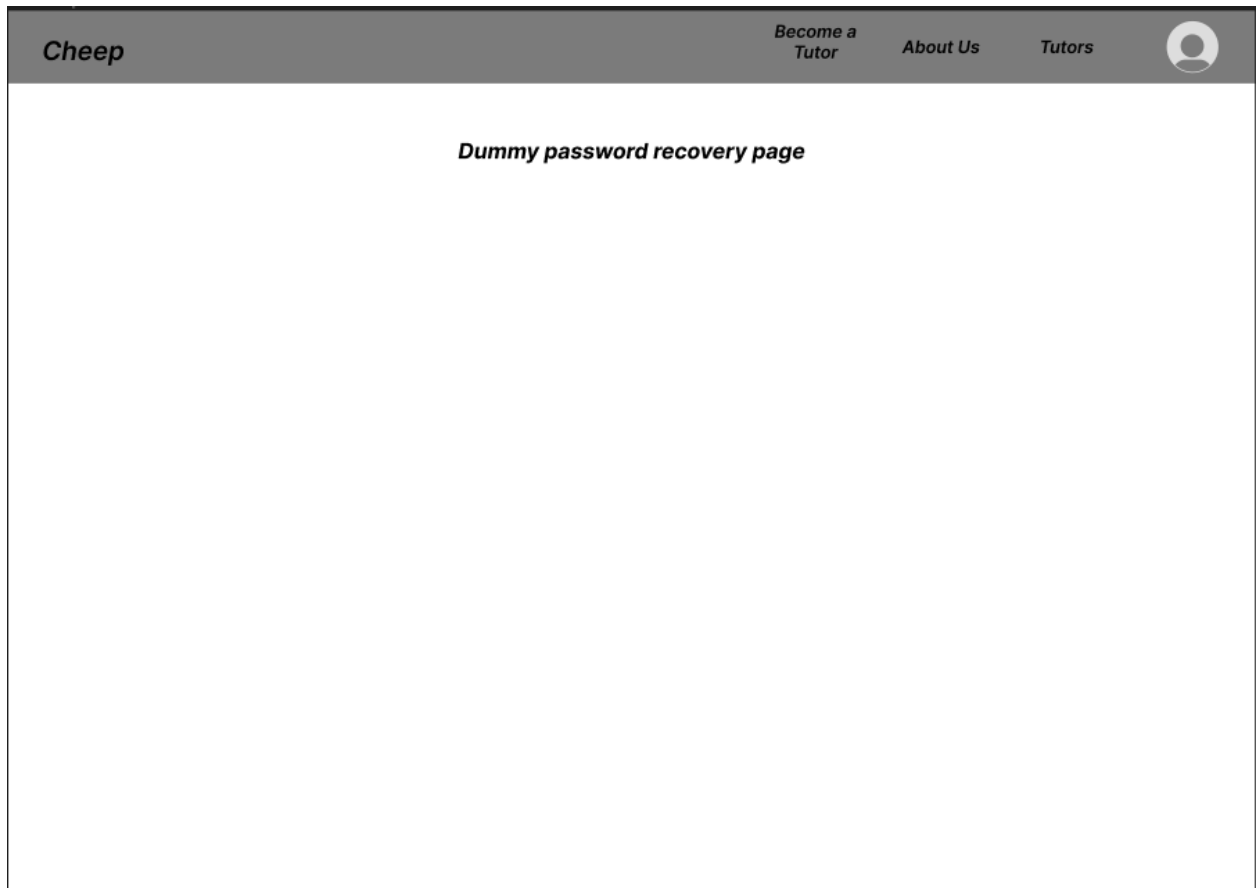
Password:

Login

Dont have an account? Sign Up

Forgot Password

3. The website redirects him to the password reset page.



High-level system architecture and technologies used

I. DB organization:

1. User:

- Id
- First Name
- Last Name
- Username
- Email
- Password

2. Tutor

- Id
- Name
- Email
- SubjectID
- CV
- Description
- Photo
- Availability Schedule

3. Message

- Id
- SenderID
- RecevierID
- Text

4. Subject

- Id
- Name
- Description

II. Media Storage:

Images will be stored in file systems on the server itself. Express static will be used to serve these images on the front end using urls. Main images that will be used stored and used are tutors photos and CVs.

III. Search architecture and Implementation

During our search implementation we are going to be using the function of %LIKE. This will enable the user to search terms and find results that are similar to their search. Search for tutors will be done using a

drop down menu of categories and a free text field. The free text field will search through the profile of all tutors using name and description of all tutors in the tutors table. The string the text field will be used in an SQL over the tutors table using %LIKE on both the name field and description. Priority will be given to the name field when running the queries.

Key Risks

Skills risk

Communication Gaps: Effective communication is critical in a full stack project. We need to collaborate with team members working on different parts of the application. Inadequate communication can lead to misunderstandings, delays, and errors in the integration of various components. A way we resolved this was to share what has been done with everyone. This way we keep everyone updated as well as provide feedback to each other.

Schedule risk

Inefficient Time Management: Like with all projects, without any proper time management projects can exceed expected deadlines. Different members have separate work, so having a way to manage these tasks is essential. The way we minimize this risk was to use a Trello board. This allows us to see all of our assigned tasks, plus the progress that is being made for them.

Technical risks

Inadequate Technical Proficiency: For a lot of us, this is the first time putting together a project like this one. This means we are seeing a lot of new interfaces and tools. When it comes to learning these programs, we get a new set of small problems that require time to manage. We minimized this risk by choosing programs and coding styles that fit the group's knowledge the best.

Legal/content risks

ChatGPT: As we know, not everything that this AI bot says is real. A lot of the data it provides can be made up. Using any of its information for legal documentation or work can create a huge risk for lawsuits. We minimized this risk by using chatgpt in specifically chosen areas throughout this project.

Project Management

For our project, we decided to make a Trello board back during milestone 0. We created a board specifically tailored to our project by organizing it into lists representing different project stages, such as "ToDo," "Doing," and "Done." This helps us track tasks effectively. Each card we created within these lists contained detailed information, including project requirements, due dates, and assigned team members. Moving cards across lists as tasks progressed gave us a clear visual of the project's status. We plan to continue using Trello as our main source for task organization and team management. This is also combined with frequent communication through a discord server.

Use of ChatGPT

We didn't use ChatGPT in this section.