

SW Engineering CSC 648/848 Fall 2023  
Wise Guidance And Tutoring Outreach Resource (wiseGATOR)  
Team 6

Team Member	Role
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Revision History

Date Submitted	10/14/23
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## **1. Executive Summary**

If you're a student, you're familiar with the struggle of juggling multiple classes and meeting overlapping deadlines. Time is money when you're in college, and with our new application, we can save our users both! We relate to the challenges students face when looking for convenient and affordable access to tutoring services on campus. That's why we started developing wiseGATOR, a brand new SFSU Guidance and Tutoring Outreach Resource. It's not only important to pass the classes, but to understand and retain the key concepts in each course. wiseGator allows SFSU students to find SFSU tutors relevant to their coursework, to get fast help and mentorship. SFSU students often depend on one another to get assistance with their classes and homework. This application will bridge the gap between students in need of tutoring services and experienced students that can offer specialized help.

Our application aims to quickly connect students to tutors and students interested in becoming tutors to paid mentorship roles. Students at SFSU are already footing the bill when it comes to tuition prices, and they're on the rise as of September 2023. We can save students time and money by skipping the Chegg membership or paying for Quizlet premium. Students can get 1 on 1, specific help with homework assignments, coursework, study guides, and more at a reasonable, cost-efficient rate. This is also a great opportunity for SFSU students that excel in their courses to make money by becoming a mentor and offering tutoring services on our site to other SFSU students. It's a one stop shop for any SFSU student seeking or offering expert help. Our goal is to streamline the process of finding tutoring, by allowing students to filter by subject and by courses offered at SFSU. This way, students are learning from one another in the same courses, and they do not have to rely on outdated and irrelevant internet forums or paid services from people that have never even been in that class. What makes our application so unique is that it is exclusive to San Francisco State University, whether you want to find a tutor or tutor others in any of the courses offered at SFSU. Searching by courses and subjects will optimize the experience for students seeking tutoring services, and SFSU tutors will be able to cater their service directly to SFSU students.

The team behind wiseGATOR is a group of 6 ambitious computer scientists at San Francisco State University. With a startup funded by Professor Petkovic of the College of Science & Engineering, this team is dedicated to bringing wiseGATOR to personal devices of SFSU students by the end of 2023. Team 6 has experienced team members with a strong background in both Web and Software Development. Our values are aligned with the interest of both students and professors alike to provide a successful experience for all of our users in their educational careers. It is important to us as students that we can make a meaningful positive impact on our peers and utilize our best talents to extend that to more students and alumni of SFSU.

## **2. List of Main Data Items and Entities**

**Users:**

### Unregistered User

An unregistered user is any person who is browsing the site without being logged into any account. They can browse all available tutors and perform searches. They can apply to be a tutor at any time but will be prompted to register.

### Registered User

Unregistered users become a registered user when they sign up for an account or if they log in to an existing one. Registered users have all of the permissions an unregistered user has with the added bonus of being able to submit a message to a tutor and apply to be a tutor.

### Admin

Admin is logged in to the web service or registered user, and is a person who is responsible for managing and supporting a tutoring web service. Admin has full access to all features and functionalities of the web service and its database. They will accept and reject tutor posts in accordance with terms of use and ethical guidelines.

## **Types of Actions:**

### Search

Anyone regardless of registered or unregistered status can perform searches on the site. The feature can be accessed by clicking the search bar on the top. The search function allows users to filter out tutors based on the subject.

## **Data:**

### Topic

A subject is a type of class for tutors to identify their services with so that students know what the tutor specializes in. For example, a tutor may be for the subject English (ENG) and tutor students in reading and or writing. This will be a fixed list in our database.

### Registration Record

Registered users inherit the permissions of unregistered users but may apply to be a tutor and send messages to tutors. They will have the following metadata in our database.

- ID Number (Mandatory)
- Name (Mandatory)
- Email (Mandatory)
- Password (Mandatory & Encrypted)

### Tutor Record

Tutors are registered users that have applied to become a tutor and had their post approved by the administrator. They will have a table in our database with the following

metadata.

- ID Number (Mandatory)
- Name (Mandatory)
- Topic (Mandatory)
- Description (Mandatory)
- CV/Flyer (Optional)
- Resume (Optional)
- Picture (Optional)
- Video (Optional)

Message

Messages will be shared to a tutor from a student, inquiring about their post to get more information. This will be form data, an input from a registered user and then made visible to the tutor on their dashboard after storing it to the database.

- Tutor ID (Prefilled & Mandatory)
- Sender ID (Prefilled & Mandatory)
- Date (Prefilled & Mandatory)
- Text (User input & Mandatory)

### **3. Functional Requirements - Prioritized**

Priority 1

o Unreg user

- Non registered users shall be able to have access to tutor information (pictures, videos, description)
- Non registered users shall be able to view all available tutors as default
- Non registered users shall be able to register
- Non registered users shall be able to apply to become a tutor, and will be prompted to register or log in
- Non registered users shall be able to log in

o Reg user

- Registered users shall be able to apply to be a tutor, submitting their information
- Registered users shall be able to upload a video
- Registered users shall be able to upload a photo
- Registered users shall be able to upload their CV, Flyer, or Resume
- Registered users shall be able to log out of their account
- Registered users shall be able to click "Forgot Password"

o Admin

- Admin shall be able to view database
- Admin shall be required to approve registered users to become tutors
- Admin shall be able to reject user posts before they are published

Priority 2

o Unreg user

- Non registered users shall be able to filter tutors based on topic/subject e.g. MATH, ENG
- Non registered users shall be able to narrow search results by searching course number

o Reg user

- Registered users shall be able to draft a message to a tutor
- Registered users shall be able to view dashboard, containing any messages received from other registered users
- Registered users that apply to be a tutor shall be prompted to choose what topic(s) they tutor
- Registered users shall be able to write a bio for themselves outside of the description field

o Admin

- Admins shall be able to view all privately sent message between registered users
- Admins shall be able to delete users from database
- Admins shall respond to issues with our website.

### Priority 3

o Unreg user

- Non registered users shall be able to benefit from our structured database system containing information on students, tutors, available times, dates, classes, and days.

o Reg user

- Registered users shall be able to submit reviews for the site that will be included in the tutors search result
- Registered users shall be able to apply to be admin
- Registered users shall be able to report inappropriate behavior
- Registered users shall be able to give a rating for a tutor

o Admin

- Admin shall be able to choose what posts gets placed on the front page
- Admin shall be able to post their own announcements on the front page
- Admin shall be able to approve requests from registered users to be admin

## 4. UI Storyboards for Each Main Use Case

## Home Page

Alternative: Access Dashboard  
↓

Logo

GATORS

Sign in

Find a Tutor

Become a Tutor

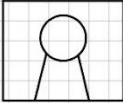
Tutoring Services:

## Tutor Search / Results

Courses ▾  
Math  
Science  
English  
—  
—  
—  
—

Search

Select tutor



Tutor

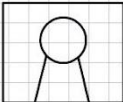
Times

Classes

Message

BLA BLA B|

Send




Tutor

Times

Classes

Message

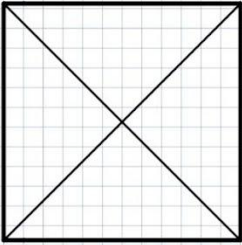


Tutor

Times

## Tutor Registration

### Become A Tutor!



First Name \*

Last Name \*

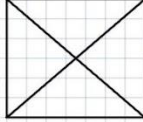
Select Topic \*

▾

*Submit separate form for tutoring a different class*

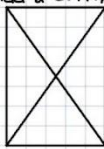
Description \*

Add a Photo



Add a Video

Add a CV/flyer



*'Lazy Login'*

## User Login

### Login

SFSU Email

Password

Forgot password? [Reset](#)

Don't have an account? [Register](#)

## User Registration

### Register

SFSU Email

Password

Confirm Password

Terms and Conditions

☐ I agree to sell my soul

Submit

## User Dashboard (same for tutor n user)

Courses ▾ Search  Go

Searchbar for Message

☐ Name

☒ Joe Smuck

☐ Name

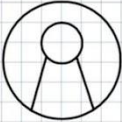
☐ Name

☐ Name

☐ Name

☐ Name

### messages



Joe Smuck (Name)

Email@email.com

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BLA BLA B!



## 5. High Level Architecture, Database Organization summary

\*We will be using the utf8mb4 character set.

### Tables:

#### Topic

- Subject (VARCHAR(4))

#### Registered Users

- ID Number (INT)
- Name (VARCHAR(100))
- Email (VARCHAR(254))
- Password (BINARY(20)) \*Stores the hash of the password using SHA-1

#### Tutors

- ID Number (INT)
- Name (VARCHAR(100))
- Topic (VARCHAR(4))
- Description (TEXT)
- CV/Resume/Flyer (VARCHAR(50)) \*Points to pdf in file
- Picture (VARCHAR(50)) \*Points to png in file
- Video (VARCHAR(50)) \*Points to mp4 in file

#### Messages

- Tutor ID (INT)
- Sender ID (INT)
- Date(TIMESTAMP)
- Message (TEXT)

We will save pdfs, videos, and images in corresponding files on the server. The file name will be saved as a string and saved to our MySQL database.

We are using MySQL and %like for our search functionality.

We are not currently planning on using any other algorithms.

We decided to add Bootstrap to our software stack. This front-end framework will be very helpful for our front-end team and will ensure that our application is responsive on mobile.

## **6. Key Risks for the Project**

Schedule Risk:

As we make progress towards the delivery of the product, we are also on a timeline filled with other deadlines and obligations as it grows later into the calendar year. There are many holidays this semester and possible obligations besides this project arise in October, November, and December. We all have other classes with projects, homework, assignments, midterms, and more. Then we also have to make sure we still have time for our family and friends during Thanksgiving and the holidays.

Realistically, and thanks to the professor's guidance, we as a team of 6 will definitely be able to manage a project of this scale. The way we can successfully deliver on time is by delegating manageable parts to each team member and playing to our strengths. This would mean team members use their best skills and talents and apply them to those areas of the project, ensuring quality and efficiency.

## **7. Project Management**

At this time, the team delegates tasks to each team member based on their role and proficiency in certain areas. The project is very feasible in the timeframe given that we have very talented team members and many resources available to us. Our team utilizes discord as our main message channel but that does not stop us from also following up 1 on 1 to track progress towards each milestone. The team lead is very comfortable allowing each team member space to work outside of our meetings on their parts and everyone is accountable. We use soft, smaller deadlines to get us to the overall goal of delivering what is expected of us. Our in class meetings after lecture are also very productive.

## **8. Use of ChatGPT**

We have not used ChatGPT for M2.