

SW Engineering CSC648/848 Fall 2021  
Milestone 2  
Golden Tutors  
10/28/21

Team 02

**Team members:**

Alberto Ramirez, Team Lead (aramir18@mail.sfsu.edu)
Emily Do, Front End Lead
Shailendra Hamal, Front End Dev
Thomas He, Back End Lead
Abhijai Singh, Back End Dev
Raymond Zuo, Github Master

Revision 01	10/28/21
-------------	----------

## **Summary**

Our website Golden Tutors is created for San Francisco State students interested in getting extra help with their courses from real, well qualified tutors. We strive to make it simple and easy for busy students to schedule sessions with tutors. On the other hand we also would like to make the tutors be comfortable helping in courses and having their time and work taken into account.

Golden Tutors will allow tutors to set their price points and choose what SFSU courses they would like to help in. We want to make sure tutors and students are compatible. Tutors will be required to make a profile where they can provide information about their education backgrounds, expertise, completed courseworks, and any fun facts about themselves. Students will be able to use a variety of filters that will narrow down the results for classes and find the right tutor. Filters will bring up results such as upper or lower division courses, scheduling to make sure tutoring sessions can be attended even in busy times, price-points, and gender so that students feel as comfortable as possible. These filters and search functions will be designed to fit SFSU students' needs as its priority.

The Golden Tutor's team, Team02, is made up of six San Francisco State Students. The team lead, Alberto Ramirez, a senior majoring in computer science, looking forward to graduation and taking on real world roles in the tech industry. His background consists of several retail jobs specifically in sales of different technical devices. Emily Do, front end lead, is a senior computer science major. She has never worked in a team of this size before and is looking forward to seeing how things are structured for larger projects. Shailendra Hamal, front end dev is a senior majoring in computer Science. He has never worked on any big project and is willing to work and learn. Thomas He, back-end lead, is a senior and aspiring developer. His main relatable experience comes from working in a development team as an intern. Abhijai Singh, back-end developer, is also a senior Computer Science major with some experience working in group projects. The majority of his technical experience has come in the form of data analyst intern roles with startups in the Bay Area. Raymond Zuo, is the github master for this project. This is his first time working on a management role of any kind and is trying to get as much experience with working with git as possible out of this team project.

## 2.List of main data items and entities

### Admin

- Highest level of permission on the site
- Will be responsible for approving new tutors
- Will have the authority to delete any harmful posts or users

### Registered User

- Tutor
  - Has filled out a profile form introducing oneself
  - Profile has to be approved
  - Will set prices for their services
  - Will select what courses to tutor in
- Attends SFSU, has the credentials, and has signed up for Golden Tutors
- Someone looking for a tutor
- Customer
  - The people who will be using the site
- Role
  - What the user can or can't do

### General\_User

- Referring to a person that has not signed up and made an account
- Unregistered\_User
  - May browse the site
- Someone who may be browsing the site
  - May be a potential tutor, or a student looking for help
    - Site does not require a login to browse

### Course

- Will contain the course numbers and a description of the course that are available at the school
- Department
  - Separate which category a subject is in

### Search

- Used to find tutors for classes
  - Filters: will narrow down results
    - Will include, gender, class, price points, scheduling options, upper/lower division courses

### Profile

- Tutors will have a profile introducing themselves to potential clients
  - Admin approved
- Information about Tutor
  - Education background
  - Completed courseworks
  - Expertise
  - Fun fact about themselves

## Account

- Will be made by the User and house their profile
- Has to have sfsu.edu to get approved
- Will have information such as current major, and grade

### **3. Functional Requirements**

#### **Priority**

1.

Unregistered:

- Show list of classes
- Signup (Avoiding lazy registration)

Registered:

- Ability to log into account
- Ability to log out of account
- Ability to contact tutor to organize sessions

Admin:

- Admin approval of pending tutor signups
- Admin ability to remove harmful users or posts

2.

Unregistered:

- Be able to see profile of tutors on site with background descriptions
- Be able to see a home page welcoming one to the site
- Be able to use filters to narrow down class results
- Have filters to narrow down class results
- Tutor Pricing should be available to see regardless of signup status

3.

Unregistered

- Be able to see ratings of tutors given by others

Registered:

- Be able to add pictures to tutors profiles
- Be able to give ratings to tutors


#### 4. UI Storyboards for each main use case (low-fidelity B&W wire diagrams only)

**Use Case 1:** A student, Ava is struggling in lectures and needs tutoring for his SFSU Math 324 class. She has gone to other tutors for lessons similar to Math 324, but they cannot help him with his Math 324 specific problems. She goes onto Golden Tutors and browses the Math section through search. She looks at the tutor information and sees that the tutor teaches Math 324 specific lessons. Ava reads the reviews from other students who were tutored by the same tutor. She is interested, but has no way of contacting said tutor. She decides to register as a SFSU student and get a tutor for Math 324. Not everyone can gain access to being a student, so only those that have a @sfsu.edu email and SFSU ID can successfully be verified. Ava enters her information, and then an email will be sent to Ava to verify his email, and she will then gain permissions that will let her contact tutors and review their page if she has received their service. Ava will now be able to get help for her class through a good search and selection of a tutor.

Home Page:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

## Find a Tutor

 Search

## Search Page:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

Search

FILTER BY

Availability

Online now

Gender

Female

Male

No preference

Photo

Name

View Profile

Courses

Description

Photo

Name

View Profile

Courses

Description

**Use Case 2:** John, a freshman at SFSU, looks at a tutoring service for CSC 210. He logs in to his account and searches for a tutor in CSC 210. John has found a tutor, Greg, a senior at SFSU, that could help him in his class, CSC 210. He adds the tutoring service to his cart where he can see the list. John will gain permissions to directly message Greg. Greg will get a notification about John's message, and Greg, who has taken CSC 210 and knows the material from when he took it, can either accept or deny the request. They can negotiate what hours to meet, what the rate will be, how to meet this way, and what material that the session will be for. Greg accepts. John now has a tutor for the exact material they teach in CSC 210.

## Login Page:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

Username

Password

Login

## Search Page:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

Search

**FILTER BY**

Availability

Online now

Gender

Female

Male

No preference

Photo

Name

View Profile

Courses

Description

Photo

Name

View Profile

Courses

Description



Saved Tutors Page:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

## SAVED TUTORS

Profile  
Picture

Contact me

Remove

Save for letter

Name

Courses

Profile  
Picture

Contact me

Remove

Save for letter

Name

Courses

**Use Case 3:** (Scenario) A tutor registers with his personal information and university credentials. Then he creates his external profile containing the required information. He can also choose to set/adjust his per hour rate with the company (Note : no transactions can be conducted on the platform), and his preferred hours of availability. Communication channels between tutor and student include links to Zoom and e-mail addresses can be opened at the discretion of the tutor.

Registration page:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
<div><div>Account perks</div><div>Sign up info</div></div>						

## Tutor Profile Page:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

Profile  
Picture

Name

Tutor rating / link  
to reviews

About

Contact message

Contact button

Request lesson message

Request lesson button

Schedule /  
Availability

## Inbox:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

Messages:

List of messages

Messages:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

Name

Message

Message

Name

Type message here

Send button

Upload media button

**Use Case 4:** (Scenario) An admin receives reports about an inappropriate post. She needs to take down a problematic post that was reported. She logs into her Admin account, selects the post, and subsequently deletes the post after a thorough review of the content. If a user has been reported multiple times for misconduct, the admin can delete the user's account.

Login:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
------	-----------	-----------	-----------	--	------------	--

Username

Password

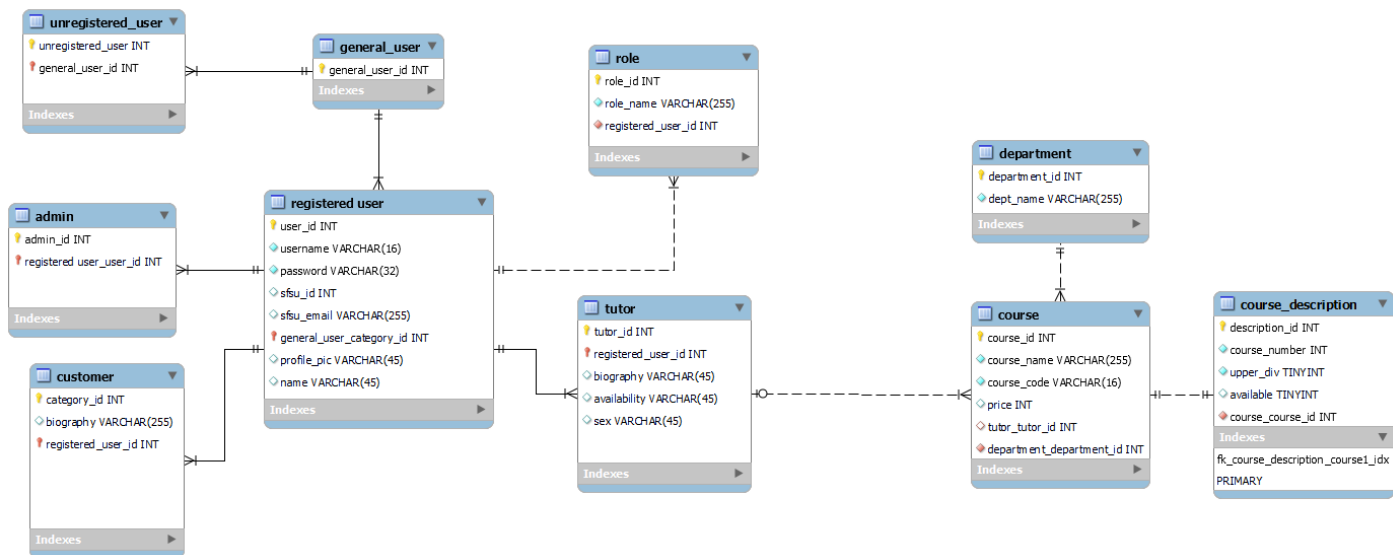
Login

Admin Portal:

Logo	Page link	Page link	Page link		Search bar	Login / signup (if logged in, name / logout)
<div><div><div>Admin Portal</div><div>Posts</div><div>Tutors</div><div>Users</div><div></div></div><div><div>Report Category</div><div>Report Information</div></div></div>						

## 5.High level Architecture, Database Organization summary only

### Database Entity Relationship Diagram



### Summary:

This is a website hosted by AWS EC2 Beanstalk. Routing the code from Python to the web server is made possible by Flask. The database is made using MySQL. Flask connects the .html files to the backend code and database. It also routes the URLs to the different pages. Flask will give different permissions to users with different roles. Python will set roles from data gathered from the front-end. This will reflect in what the users on the website will be able to see and do.

Database will be organized similarly to above, where all users are children of the `general_user` entity. . Once a person registers, they can get a role which can be modified later on. Courses can have tutors, or they can be by themselves, unowned by anyone. They have a description and that will be used to help in searching and filtering. All courses must be part of a department at SFSU, so that could also help with filtering.

## 6. Key Risks

At this point of the project the risks that we have run into are very little, we expect more obstacles as time passes and as more code is written. Only two main concerns that the team has had, as followed:

**Legal/Content :** Potential copyright/legal issues with students taking screenshots of questions from within their assignments and posting them on the forum. Ideally, all administrators should screen for these kinds of posts, but due to volume such posts may slip through the filter.

**Scheduling:** Working with a group of six students is a risk due to the fact that scheduling for everyone is different. Times where everyone is free is limited. Working remotely does play a factor into scheduling as well, everyone has to be available and in a good working environment where their devices have a stable internet connection. The way we will be overcoming this is by using a program for scheduling so that everyone can be on the same page and watch the deadlines.



## **7. Project management**

Our group has been collaborating over Google docs and Discord. Google docs allows the team to work on documentation in real time. It also gives the team a way to see how the progress is going.

Discord is the service the team uses to keep in communication with each other. If only a portion of the group or separate members have to meet, Discord allows communication with one another. The Discord channel is a good way of updating the whole team at once. Discord allows the team to stay updated regardless of their schedule, messages never expire, so if one member posts in the general tab everyone can see it.

Asana is a scheduling program that the team will be using going forward with the project. It is a free program that allows tasks to be kept track of and scheduling deadlines to be seen by the whole team. Asana will be a good program to use to be able to experience how collaboration with multiple people can be managed. It helps to stay on track with the project and makes sure it is delivered on time.