

Final Project for SW Engineering CSC 648-848

Fall 2021

TwoHelpYou

Team Number: Team 01

Project Application And Name: Provide tutoring to SFSU students – "TwoHelpYou."

Team Members and Roles:

1. Justin Lam (Team Lead) - jlam18@mail.sfsu.edu
2. Wesley Xu (Front-End Lead) - wxu3@mail.sfsu.edu
3. Dinesh Thapa (Back-End Lead) - dthapa@mail.sfsu.edu
4. Aviral Puri (Github Master) - apuri2@mail.sfsu.edu
5. Chung Hei Fong
6. Kurt Resayo

URL: [Software Engineering Class SFSU](http://3.17.38.143:3000/) (<http://3.17.38.143:3000/>)

Date: December 18, 2021

Table of Contents

1. Product Summary.....	2
2. Milestone Documents	3
Milestone 1:	3
Milestone 2:	18
Milestone 3:	55
Milestone 4:	58
3. Product Screen Shots	71
4. Database Organization	81
5. Google Analytics	83
6. Project management.....	84
7. Team Member Self Assessment and Contributions.....	87

1. Product Summary

Name of the product: TwoHelpYou - A tutoring site was developed to help SFSU students.

Product summary

1. Registration
 - Users are able to register an account with the website.
2. Login
 - Users are able to log in with their accounts and utilize website features.
3. Search
 - Users can use the search bar function to search for offered courses.
4. Search results
 - Executing the search show posts regarding the query to the user.
5. Post
 - Registered users are allowed to post offers to provide tutoring to other users.
6. Messaging
 - Registered users can send messages to other users offering to tutor.
7. Dashboard
 - Logged in users will see a dashboard that displays incoming messages and their posts.

URL of our website: <http://3.17.38.143:3000/>

2. Milestone Documents

Milestone 1:

SW Engineering CSC648/848 Fall 2021

TwoHelpYou

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11. Chung Hei Fong
12. Kurt Resayo

Milestone: Milestone 1

Date: 2021, October 09

History:

Version	Date
M1V1	2021, October 09
M1V2	2021, October 13

Table of Contents

1. Executive Summary	5
2. Personae and Main Use Cases	6
3. List of main data items and entities	10
4. Initial list of functional requirements.....	10
5. List of non-functional requirements.....	13
6. Competitive analysis.....	14
7. High-level system architecture and technologies used	15
8. Team and roles.....	16
9. Checklist	17

1. Executive Summary

It is challenging to decide on any particular website among the various online tutoring services to help students excel in their coursework. Our products hope to provide the students of San Francisco State University (SFSU) with a better alternative. Our team aims to provide a simplified experience for those who choose to use our product. This experience would not be an overload of information or too broad in material to the users. By currently only focusing on the students here at SFSU, we hope to make it easy to tutor and find tutors. This specialization makes it easier to find the course they need help in and not some subject overview. Other services may only provide a wide range of assistants in the broad understanding of math or science. Still, our team hopes that our product "**TwoHelpYou**" can provide pinpoint assistance on their particular course at SFSU.

Our team's decision to name our product "**TwoHelpYou**" is also our goal. We can provide two parties with assistance, students past and present, to help other students. Our team hopes to only employ students and graduates from SFSU who have bravely pathfinding the courses offered at SFSU for tutoring and are willing to share their experience. By having students who have taken the course be tutors, we can provide other students seeking help with a unique experience. This experience would be more specialized and specific assistance that guides them down the path of success for that particular class that other services may not be able to provide. Such as the specific material covered in the syllabus and the style or method sought by the professor. Due to narrowing our audience of users, we can contract and simplify the search to make it easy for students to find help in the course they are taking. At the same time, it will easily allow tutors to sign up for which classes they are qualified to tutor by listing what courses they have completed. By employing students and graduates, we can also proudly support and give back to our community which is the dream of all alumni.

As students here at SFSU, we like to say we know the needs of our community because we are a part of it. Being part of this community with the ability to give back, we hope to connect students. By connecting the students, we can help them by providing a job or assistance in their classes. Hosting a platform for them to connect, we create a positive feedback loop of former and current students assisting one another. Our mission statement is to provide a platform and service for students to connect and help other students.

2. Personae and Main Use Cases

1.	Name: Anish Gupta	Age: 25	Education Level: Post Grad
	About: <ul style="list-style-type: none"> • Based in Bay Area • Recently graduated with a degree in Economics • Deciding between further studies and a job 		
	Goals: <ul style="list-style-type: none"> • Looking for part-time work opportunities • Wants more experience for his portfolio • Wants to be a teacher in the future 		
	Skills: <ul style="list-style-type: none"> • Proficient with mobile and web apps • Proficient with computers in general • Great interpersonal skills • Prior teaching experience 		
Pain Points: Having graduated and missed the environment and the extra pocket money he earned from teaching jobs. He was looking for a new avenue to make some money and be productive while figuring out my next steps. He was also looking for opportunities to add more experience to my portfolio.			

2.	Name: Calvin Michele	Age: 21	Education Level: Undergrad
	About: <ul style="list-style-type: none"> • Based in Bay Area • Junior pursuing a double major in Communications and Political Science • Loves the college environment and meeting new people • Loves outdoor activities such as hiking, white water rafting, and rock climbing 		
	Goals: <ul style="list-style-type: none"> • Looking to Graduate on time and with a respectable GPA • Wants to pursue a job in legislation • Thinking about going to law school 		
	Skills: <ul style="list-style-type: none"> • Proficient with mobile and web apps • Great interpersonal skills 		
Pain Points: Covid has made it very difficult to interact with fellow classmates due to online classes. I feel very disconnected from my peers and find it difficult to reach out for help.			

3.	Name: Salomé Beaulieu	Age: 19	Education Level: Highschool Grad
		About: <ul style="list-style-type: none"> • Foreign exchange student from Lyon University, France • Recently graduated from high school • Majoring in Fine Arts 	
		Goals: <ul style="list-style-type: none"> • Wants to experience American culture and make new friends • Wants to get better at English (speaking and writing) • Wants to move to New York in the future 	
		Skills: <ul style="list-style-type: none"> • Familiar with mobile and web apps • Knows English but is not fluent 	
Pain Points: Being an exchange student, the language barrier makes it difficult to get academic help in person. Her English is very decent but communicating can be troublesome sometimes with the different accents.			

4.	Name: Theodora Kennedy	Age: 16	Education Level: Highschool Student
		About: <ul style="list-style-type: none"> • Based in Bay Area • High School Student taking concurrent classes at college • Loves Mathematics and Physics • Doesn't really fit in with people her age 	
		Goals: <ul style="list-style-type: none"> • Looking to learn more about STEM subjects • Wants to graduate early from High school • Wants to make more friends at her intellectual level 	
		Skills: <ul style="list-style-type: none"> • Proficient with mobile and web apps • Extensive knowledge of Mathematics • Passion for all STEM subjects 	
Pain Points: Being much younger than most people in my classes, she feels intimidated and sometimes scared hanging out around campus or going to school events to make friends. She also lives at home and attends regular high school three days a week, so I need another avenue to connect and meet people at my academic level. I feel like online tutoring evens the playing field and removes my age from the equation.			

5.	Name: Mark Hammond	Age: 31	Education Level: Technical Degree
	 <p>About:</p> <ul style="list-style-type: none"> • 10+ years of industry experience in metal fabrication • Business owner • Going to college to get a web development degree/certification 	Goals:	
		<ul style="list-style-type: none"> • Looking to expand his web development knowledge • Looking for help on coursework after work hours • Wants to grow his business using online advertising and marketing 	Skills:
			<ul style="list-style-type: none"> • Familiar with mobile and web apps • Great communication skills • Great time management skills • Detail-oriented

Pain Points: He cannot dedicate enough time to attend school events and get help at the library since he works full time. He need help after hours or on the weekends when most school tutoring resources are closed.

1. **Anish Tutor Post Use Case:** Anish is looking for part-time work and a way to pass his time while figuring out his next steps when he finds "**TwoHelpYou**." He looks through the homepage and about page to find that "**TwoHelpYou**" provides a place for students to get help and offer help. He sees this as very appealing as he was a TA for several of his professors during his undergrad. He sees an option to post on to the website to offer his service as a tutor. He is prompted to first register before he can submit his form. Once registered as a user. He can upload his evidence of credibility along with his availability for the course he wishes to tutor for. Anish hopes that this will allow him to find part-time work and add to his portfolio when applying for jobs or grad school.
2. **Calvin General User Forum Post Use Case:** Feeling lost in his course work, Calvin looks up tutoring and academic help websites. He finds "**TwoHelpYou**" and navigates to the homepage. There he uses the search function to search for the subject that he is struggling with. He is served a list of results that pertain to his selected subject, including study groups, experts who can help, and forum topics and pages relating to the subject matter. Calvin navigates to the forum, discusses concepts he struggles with, and posts his questions about the coursework.

3. **Salome Tutor Search Use Case:** Salome is struggling with her GE writing course. Although she took several English classes in France, long-form writing and in-person communication in English are complex and slow for her. She needs someone who can go over her writing and help her edit and correct grammar mistakes. A friend of hers sends a link to "**TwoHelpYou**," and she navigates to the homepage. There she uses the simple search by class number to find tutors and resources for her English course. She is then presented with a list of results showing her profiles of tutors who specialize in English and have ESL experience. She selects one that appeals to her and sends them a message to coordinate a session.
4. **Theodora Forum/Registration Use Case:** Teddy is bored at home on a Wednesday night. She is done with all her high school homework as well as her college coursework. At 16, there isn't much to do for her on a weeknight since she has an early curfew. Being fascinated with the mathematics class, she is taking at college; she looks up the course number on google. There she finds a link to the course page on "**TwoHelpYou**." On the course page, there is a list of tutors and students who are either taking the class and need help or are experts in the subject and are providing support. Scrolling through the page, she also finds an independent study group that focuses on complex analysis, which is a higher-level subject she doesn't yet have prerequisites for. She clicks on the study group to see that anyone can join and be a part of the academic discourse. She clicks the join button and is taken to a signup page to enter her email, username, and password. She is then redirected to the group page, where she can begin to participate immediately.
5. **Anish Admin Use Case:** Anish has been hired by the "**TwoHelpYou**" team for administrative purposes. As part of the administrative team, some of his tasks require him to interact with the users. His interaction includes reviewing and approving users posts to offer tutoring. Additionally, he has to review and approve registered user posts to ensure appropriate content for the site.
6. **Mark Tutor Scheduling Use Case:** Mark gets home from work around 6:30 PM; after dinner, he needs to work on his upcoming homework. Being a night student, he doesn't have time to go to homework help sessions or office hours, held on Wednesday 3-5 PM when he is at work. Mark looks for help online for some of his homework questions and finds "**TwoHelpYou**," a tutoring site. He clicks the link and is taken to the homepage of the website. He sees a search bar on the top of his screen, which he uses to find the web development resources he is looking for. He clicks the search button and receives a list of tutors who have expertise in web development. From the list, he finds a Master student whose profile shows that they have already completed their degree in computer science and have expertise in the specific course he is searching for. On the profile page, he can sign up for a session by messaging him. He can write what subject he needs help in, the dates and times he is free to meet, and the goals he wants to achieve through the session. The tutor he selected reaches out to him within a day to introduce themselves and confirm their meeting time. Mark can now get much-needed help on his assignments after hours when convenient for him and his busy work schedule.

3. List of main data items and entities

1. Unregistered User:
 - Unregistered users are the users who can view the contents of the website. However, these users don't have permission to schedule tutoring services.
 - To schedule appointments or post questions, unregistered users are required to register
2. Registered User:
 - Registered users can view the web page's contents, schedule appointments with tutors, and post questions in the forum.
 - To schedule or post questions, registered users are required to login
 - Required Data:
 - first_name: First name of the registered user created at the time of registration
 - last_name: last name of the registered user created at the time of registration
 - email: Valid SFSU email
 - password: Password created at the time of registration
 - username: Username created at the time of registration
 - photopath: Relative path of the photo
 - thumbnail: Relative path of the thumbnail
3. Admin:
 - Admin is the registered user who has complete system control of the website
 - These users have the privilege to approve tutor post
4. Post:
 - Posting is a service that a website provides where tutors can provide their posts for tutoring service courses.
 - Required data:
 - username: username of tutor to be displayed on the website
 - course_id: Links to the Courses offered by the tutor
 - availability: Date and time tutor is available for tutoring
 - authorized: used to determine if its allowed to be seen on the website
5. Registration Form:
 - The registration form can create an account for the new unregistered user.
 - Required Information:
 - first_name: Legal First Name
 - last_name: Legal Last Name
 - username: Unique username
 - email: Valid SFSU email
 - active: whether if the account is active or not.
 - password: Character must have 8 or more characters, including at least one uppercase and one special character
 - Photo: that will be used to be uploaded where the photopath and thumbnail will be made.
6. User Profile:
 - Profiles are created for tutors with their status of availability
 - Profiles can have reviews and rating

- Required Data:
 - first_name: First name of user
 - last_name: Last name of user
 - Reviews: Reviews given to the tutor by the registered user
 - Rating: Rating given to the tutor by the registered user
 - Photo: Optional photo of the tutor
- 7. Search
 - Users can search through the list of available tutors
 - Users can search through the list of available courses tutors are offering
 - Users can search through the list of forums
- 8. Message
 - Message can be sent from one registered user to another registered user
 - Required Data:
 - message_id: message will have its own unique id
 - message: Message is the text sent and received by the registered user
 - receiver_id: ID of the receiver who receives the message to the registered user
 - sender_id: ID of the sender who sends the message to the registered user
- 9. Course
 - Posting of tutors are divided by course and users can search through the desired course
 - Required Data:
 - course_id: Category has its own unique id
 - course_prefix: The course beginning (i.e. CSC)
 - course_postfix: The course ending (i.e. 648)
- 10. Forum:
 - Forum is a place where students and tutors can post questions
 - Registered users can log in to post questions or reply to the post
 - Required data:
 - title: Title of the question posted by a registered user
 - comment: Comments on the post of the registered users
 - date_time: Record of date and time of comment and question in forum
 -
- 11. Comment
 - Registered users can comment on the forum.
 - Required Data:
 - comment_id: comment has its own unique id
 - forum_id: comment is associated with the forum where the registered user has already posted questions or concerns.
 - comment: comment posted by the registered user when they answer in forum
 - user_id: comment is associated with the registered user

4. Initial list of functional requirements

Unregistered User

1. Unregistered user shall be able to create an account with an SFSU email
2. Unregistered user shall be able to search a tutor post using the course number
3. Unregistered user shall be able to search a tutor post using major name
4. Unregistered user shall be able to search a tutor post using tutor name
5. Unregistered user shall be able to view a post that another student creates
6. Unregistered user shall be able to look at the forum
7. Unregistered user shall be able to view tutor profile

Registered User

8. Registered user shall be able to use all functions from Unregistered User
9. Registered user shall be able to login in with their SFSU email
10. Registered user shall be able to log out
11. Registered user shall be able to post a question
12. Registered user shall be able to post to the forum
13. Registered user shall be able to message a user who offers to tutor
14. Registered user shall be able to make a post stating tutoring availability

Administrator

15. Administrator shall be able to use all the functions from Unregistered User
16. Administrator shall be able to use all the functions from Registered User
17. Administrator shall be required to approve post
18. Administrator shall be able to delete post
19. Administrator shall be able to suspend accounts
20. Administrator shall be able to delete accounts

5. List of non-functional requirements

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in Milestone 0. Application delivery shall be from chosen cloud server.
2. Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of two major browsers.
3. All or selected application functions must render well on mobile devices
4. Data shall be stored in the database on the team's deployment cloud server.
5. No more than 50 concurrent users shall be accessing the application at any time
6. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
7. The language used shall be English (no localization needed)
8. Application shall be very easy to use and intuitive
9. Application should follow established architecture patterns
10. Application code and its repository shall be easy to inspect and maintain
11. Google analytics shall be used
12. No email clients shall be allowed.
13. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in UI.
14. Site security: basic best practices shall be applied (as covered in the class) for main data items
15. Application shall be media rich (images, video etc.). Media formats shall be standard as used in the market today
16. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development
17. For code development and management, as well as documentation like formal milestones required in the class, each team shall use their own github to be set-up by class instructors and started by each team during Milestone 0
18. The application UI (WWW and mobile) shall prominently display the following exact text on all pages "SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only" at the top of the WWW page. (Important so as to not confuse this with a real application).

6. Competitive analysis

Feature	Tutoring.sfsu.edu	TutorMe.com	Wyzant.com	FindATutor.org	TwoHelpYou
Leave a review about a tutor	-	+	+	-	+
Forum page where anyone can post a question and can answer questions.	-	-	+	-	++
Search and choose a specific tutor by using a special search by class and course number.	-	+	+	-	++
Have group study session with other students and a tutor	+	-	-	-	+
Virtual tutoring sessions using website tools	-	+	+	-	+
Chat with a tutor before and after a session	-	-	+	-	+

+ feature exists; ++ superior; - does not exist

Summary

Our website will have a feature that will let users review the tutor they had a session with by leaving a rating and a comment on the tutor's profile. Anyone with a registered account, tutors or students, can post a question or post onto the forum page as long as it's site appropriate and can answer any question or reply to a post there. Users, registered or not, can search for specific tutors by using the search function or through a specific class and course number on the website. They can search by name or by subject and see the results and view the tutor's profile to see what subjects they can tutor in and their average rating and reviews left by registered users. Users can schedule group study sessions with other users and with a tutor. When a user has a virtual study session with a tutor, they can connect on the website. They can use tools like a whiteboard, screen share, code, and word editor and save the files onto the local device. When a user has chosen the tutor they want to work with, both can communicate with one another by using the website's chat feature before and after a session.

7. High-level system architecture and technologies used

The software components, frameworks, APIs, tools and systems to be used, supported browsers and deployment platform (SW and server) to be used in the development:

- Server Host: AWS EC2 1vCPU 1GB RAM
- Operating System: Ubuntu 20.04 LTS (HVM) 64-bit x86
- Server Database: MySQL v8.0.26
- Web Server: Node.js v14.17.6
- Server-Side Language: JavaScript
- Additional Technologies:
 - Web Framework: Express.js v4.16.1/v4.17.1
 - IDE: Visual Studio Code
 - Web Analytics: Google Analytics
 - SSL Cert: Bcrypt v5.0.1
 - Express-Handlebars v5.3.3
 - React: v17.0.2

8. Team and roles

Name	Role	Email
Justin Lam	Team Lead/Document Master	jlam18@mail.sfsu.edu
Wesley Xu	Front-End Lead	wxu3@mail.sfsu.edu
Dinesh Thapa	Back-End Lead	dthapa@mail.sfsu.edu
Aviral Puri	Github Master/Front-End Developer	apuri2@mail.sfsu.edu
Chung Hei Fong	Front-End Developer	cfong7@mail.sfsu.edu
Kurt Resayo	Back-End Developer	kresayo@mail.sfsu.edu

9. Checklist

No.	Item	Status
1	All team members are engaged and attending ZOOM sessions when required	Done
2	The team found a time slot to meet outside of the class	Done
3	Back end, Front end leads, and Github master chosen	Done
4	Team ready and able to use the chosen back and front end frameworks and those who need to learn are working on learning and practicing.	On Track
5	The team lead ensured that all team members read the final M1 and agreed/understood it before submission.	Done
6	Github organized as discussed in class (e.g., master branch, development branch, a folder for milestone documents, etc.)	Done

Milestone 2:

SW Engineering CSC648/848 Fall 2021

TwoHelpYou

Project Application And Name: Provide tutoring to SFSU students – "TwoHelpYou."

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Team Members and Roles:

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17. Chung Hei Fong
18. Kurt Resayo

Milestone: Milestone 2

Date: 2021, October 28

History:

Version	Date
M2V1	2021, October 28
M2V2	2021, October 21

Table of Contents

1. Executive Summary	20
2. List of main data items and entities	21
3. Functional Requirements	24
4. UI Storyboards for each main use case.....	26
Use Case 1:	26
Use Case 2:	32
Use Case 3:	36
Use Case 4:	39
Use Case 5:	45
5. High level Architecture, Database Organization summary only	50
6. Identify actual key risks for your project at this times.....	52
7. Project management.....	54

1. Executive Summary

It is challenging to decide on any particular website among the various online tutoring services to help students excel in their coursework. Our products hope to provide the students of San Francisco State University (SFSU) with a better product. Our team aims to provide a simplified experience for those who choose to use our product. This experience would not be an overload of information or too broad in material to the users. By currently only focusing on the students here at SFSU, we hope to make it easy to tutor and find tutors. This specialization makes it easier to find the course they need help in and not some subject overview. Other services may only provide a wide range of assistants in the broad understanding of math or science. Still, our team hopes that our product "**TwoHelpYou**" can provide pinpoint assistance on their particular course at SFSU.

Our team's decision to name our product "**TwoHelpYou**" is also our goal. We can provide two parties with assistance, students past and present, to help other students. Our team hopes to only employ students and graduates from SFSU who have bravely pathfinding the courses offered at SFSU for tutoring and are willing to share their experience. By having students who have taken the course be tutors, we can provide other students seeking help with a unique experience. This experience would be more specialized and specific assistance that guides them down the path of success for that particular class that other services may not be able to provide. Such as the specific material covered in the syllabus and the style or method sought by the professor. Due to narrowing our audience of users, we can contract and simplify the search to make it easy for students to find help in the course they are taking. At the same time, it will easily allow tutors to sign up for which classes they are qualified to tutor by listing what courses they have completed. By employing students and graduates, we can also proudly support and give back to our community which is the dream of all alumni.

As students here at SFSU, we like to say we know the needs of our community because we are a part of it. Being part of this community with the ability to give back, we hope to connect students. By connecting the students, we can help them by providing a job or assistance in their classes. Hosting a platform for them to connect, we create a positive feedback loop of former and current students assisting one another. Our mission statement is to provide a platform and service for students to connect and help other students.

2. List of main data items and entities

21. Unregistered User:

- Unregistered users are the users who can view the contents of the website. However, these users don't have permission to schedule tutoring services.
- To schedule appointments or post questions, unregistered users are required to register

22. Registered User:

- Registered users can view the web page's contents, schedule appointments with tutors, and post questions in the forum.
- To schedule or post questions, registered users are required to login
- Required Data:
 - first_name: First name of the registered user created at the time of registration
 - last_name: last name of the registered user created at the time of registration
 - email: Valid SFSU email
 - password: Password created at the time of registration
 - username: Username created at the time of registration
 - usertype: Type of user could be tutor, student, or admin
 - photopath: Relative path of the photo

23. Admin:

- Admin is the registered user who has complete system control of the website
- These users have the privilege to add tutors

24. Tutor Posting:

- Posting is a service that a website provides where tutors can provide their posts for tutoring service courses.
- Required data:
 - tutorname: Tutor name to be displayed on the website
 - courses: Courses offered by the tutor
 - date: Date tutor is available for tutoring
 - time: Time tutor is available for tutoring

25. Registration Form:

- Registration form can create an account for the new unregistered user.
- Required Information:
 - first_name: Legal First Name
 - last_name: Legal Last Name
 - username: Unique username
 - email: Valid SFSU email
 - password: Character must have 8 or more characters, including at least one uppercase and one special character

26. Tutor Profile:

- Profiles are created for tutors with their status of availability
- Profiles can have reviews and rating
- Required Data:
 - First Name: First name of Tutor
 - Last Name: Last name of Tutor
 - Reviews: Reviews given to the tutor by the registered user
 - Rating: Rating given to the tutor by the registered user
 - Photo: Optional photo of the tutor

27. Tutoring Schedule:

- Tutor Schedule will be displayed on the tutor profile page.

28. Forums:

- Forum is a place where students and tutors can post questions
- Registered users can log in to post questions or reply to the post
- Required data:
 - title: Title of the question posted by a registered user
 - comment: Comments on the post of the registered users
 - date_time: Record of date and time of comment and question in forum

29. Search:

- Users can search through the list of available tutors
- Users can search through the list of available courses tutors are offering
- Users can search through the list of forums

30. Message:

- Message can be sent from one registered user to another registered user
- Required Data:
 - message_id: Message will have its own unique id
 - time: Date and time when the message was sent
 - message: Message is the text sent and received by the registered user.
 - receiver_id: Id of the registered user who receives the message
 - sender_id: Id of the registered user who sends the message

31. Comment:

- Registered users can comment on the forum.
- Required Data:
 - comment_id: comment has its own unique id
 - forum_id: comment is associated with the forum where the registered user has already posted questions or concerns.
 - comment: comment posted by the registered user when they answer in forum
 - user_id: comment is associated with the registered user

32. Course:

- Posting of tutors will be categorized according to their course prefix and postfix and users can search through desired courses
- Required Data:
 - course_id: Course has its own unique id
 - course_prefix: Course prefix is the prefix of the course name

- course_ postfix: Course postfix is the number following course_prefix

3. Functional Requirements

Priority 1:

Unregistered User

1. Unregistered user shall be able to create an account with an SFSU email
2. Unregistered user shall be able to search for a tutor using course number
3. Unregistered user shall be able to search for a tutor using major name
4. Unregistered user shall be able to search for a tutor using the tutor name
5. Unregistered user shall be able to view tutor profile

Registered User

6. Registered user shall be able to use all functions from Unregistered User
7. Registered user shall be able to login with their SFSU email
8. Registered user shall be able to log out
9. Registered user shall be able to message a user offering to tutor
10. Registered user shall be able to make a post stating tutoring availability

Administrator

11. Administrator shall be able to use all the functions from Registered User
12. Administrator will have access to database and administrative tools
13. Administrator shall be required to approve tutor post using admin tool
14. Administrator shall be able to delete post using admin tool
15. Administrator shall be able to suspend accounts using admin tool
16. Administrator shall be able to delete accounts using admin tool

Priority 2:

Unregistered: User:

17. Unregistered user shall be able to view reviews sorted by review level
18. Unregistered user shall be able to view a post that another student creates

Registered User:

19. Registered user shall be able to schedule a meeting with a user offering tutoring
20. Registered user shall be able to post a review on a post

Priority 3:**Unregistered User:**

21. Unregistered user shall be able to look at the forum

Registered User:

22. Registered user shall be able to set up a group study session with other users and a tutor
23. Registered user shall be able to send a message to another registered user
24. Registered user shall be able to post to the forum
25. Registered user shall be able to report a user if they encounter an unruly registered user and the report will be sent to the admin.
26. Registered User shall use website tools during a virtual session with a tutor
27. Registered User that is a tutor shall be able to respond to student post to answer question
28. Registered User shall be able to answer a forum post
29. Registered User shall be able to search up certain forum posts

Administrator

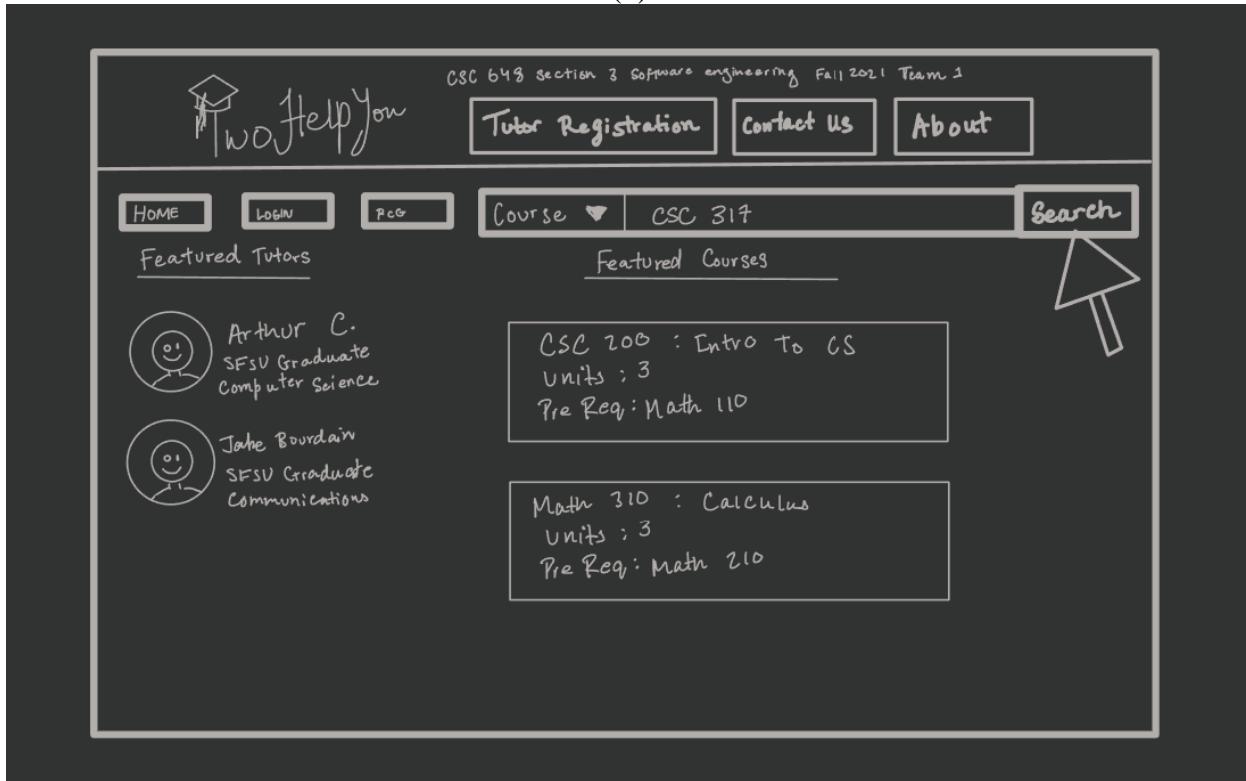
30. Administrator shall be able to delete forum post using admin tool

4. UI Storyboards for each main use case

Use Case 1:

Mark needs help with his web development homework after hours. (1) He uses the search function on TwoHelpYou to find his course. (2) Using the search results, he selects a tutor whom he likes. (3) Mark clicks on the schedule session button to set up a session with Arthur (tutor). (4) He fills out the form and clicks submit. (5) He is prompted to log in. (6) He fills out the registration form and clicks submit.

(1)



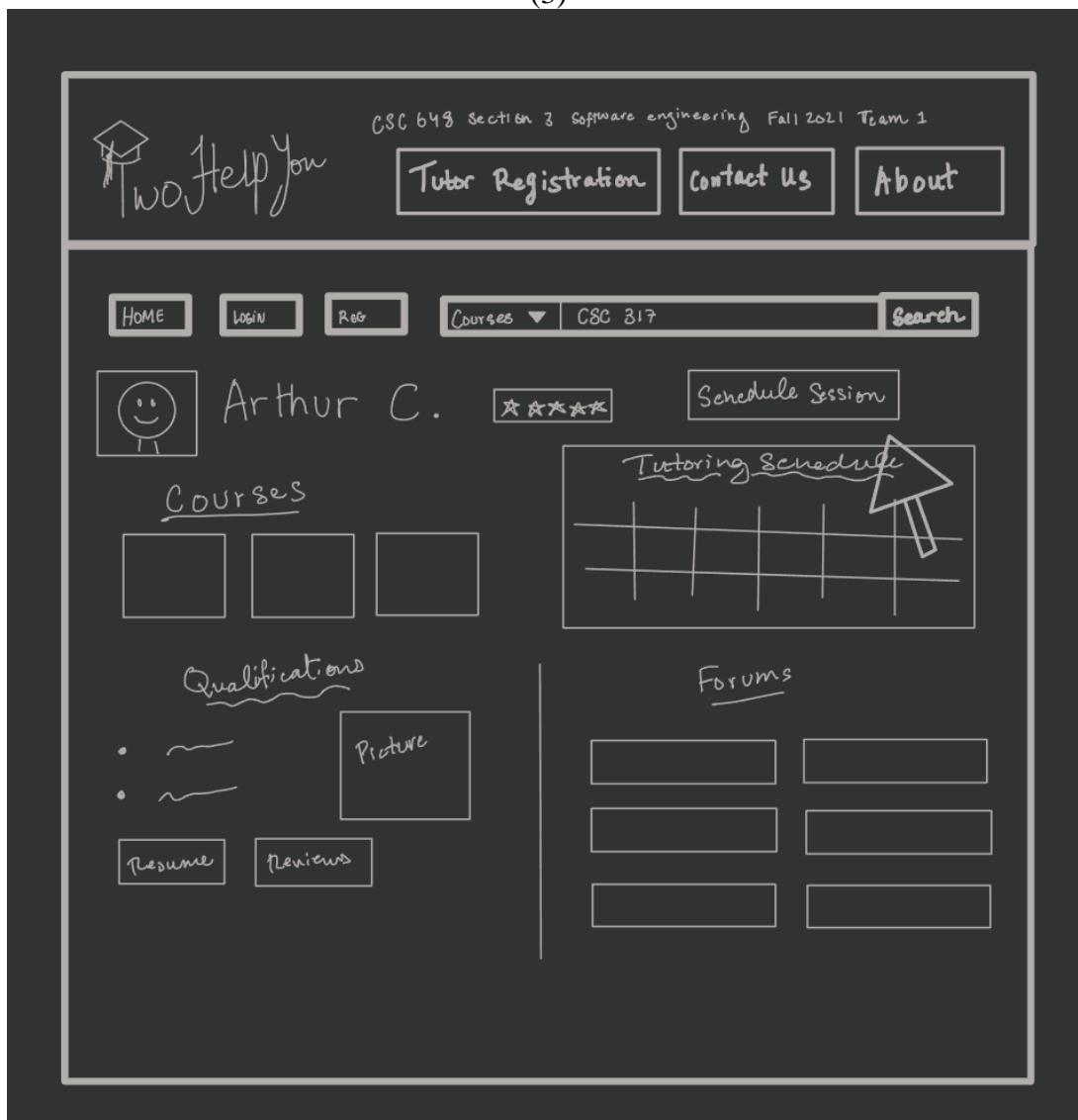
(2)

The image shows a hand-drawn wireframe of a web application interface. At the top, there is a header bar with the text "CSC 648 section 3 Software engineering Fall 2021 Team 1". Below the header is a logo featuring a graduation cap and the text "Two Help You". To the right of the logo are four buttons: "Tutor Registration", "Contact Us", and "About". Below the header is a navigation bar with buttons for "HOME", "LOGIN", "Reg", "Courses ▾", "CSC 317", and "Search".

The main content area is divided into sections:

- Courses**: A box containing information about "CSC 317 : Web Development", "Units : 3", and "Pre Req: CSC 200".
- Search Result**: Two empty boxes labeled "Search Result".
- Tutors**: A section with a heading "Tutors" and two entries. Each entry consists of a circular "pic" icon, the name "ARTHUR C.", and the text "SFSU Graduate Computer Science".
- A large hand-drawn cursor arrow pointing upwards towards the "Tutors" section.

(3)



(4)

A hand-drawn wireframe of a web page titled "Tutor Registration". The page has a header with a logo, navigation links, and a search bar. Below the header is a title "Tutor Scheduling Form" followed by several input fields and a submit button.

The header includes:

- Logo: Two Help You
- Text: CSC 648 section 3 Software engineering Fall 2021 Team 1
- Navigation: Tutor Registration, Contact Us, About

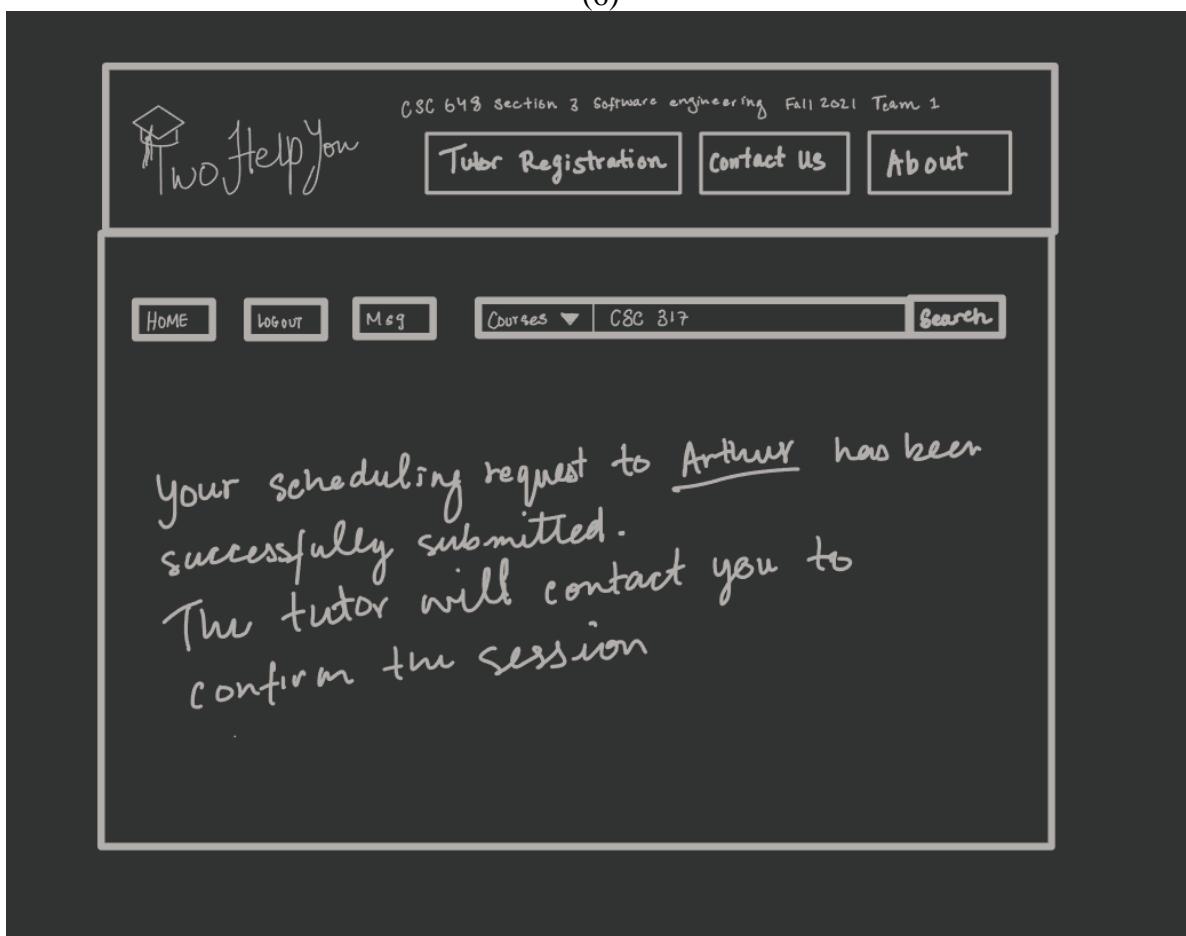
The main content area includes:

- Buttons: HOME, LOGIN, REG, Courses ▾, CSC 317, Search
- Title: Tutor Scheduling Form
- Input fields: Subject, Course Number ▾, Email / contact Info, Extra Info / Questions
- Buttons: Submit, a cursor icon pointing to the Submit button.

(5)

A hand-drawn wireframe of a web page for 'TwoHelpYou'. The header includes a logo of a graduation cap and the text 'TwoHelpYou', followed by 'CSC 648 Section 3 Software engineering Fall 2021 Team 1'. Navigation links include 'Tutor Registration', 'Contact Us', and 'About'. Below the header is a navigation bar with 'HOME', 'Login', 'Reg', 'Courses ▾ | CSC 317', and a 'Search' input field. The main content area contains a login form with fields for 'Email' and 'Password', and a 'LOGIN' button. To the left of the form, there are partially visible labels: 'Subj', 'Emr', 'Seq', and 'Pre'. Below the form is a link 'Don't have an account? Register'. At the bottom left is a large rectangular box labeled 'Extra info / questions' and at the bottom right is a 'Submit' button. A cursor icon points towards the 'LOGIN' button.

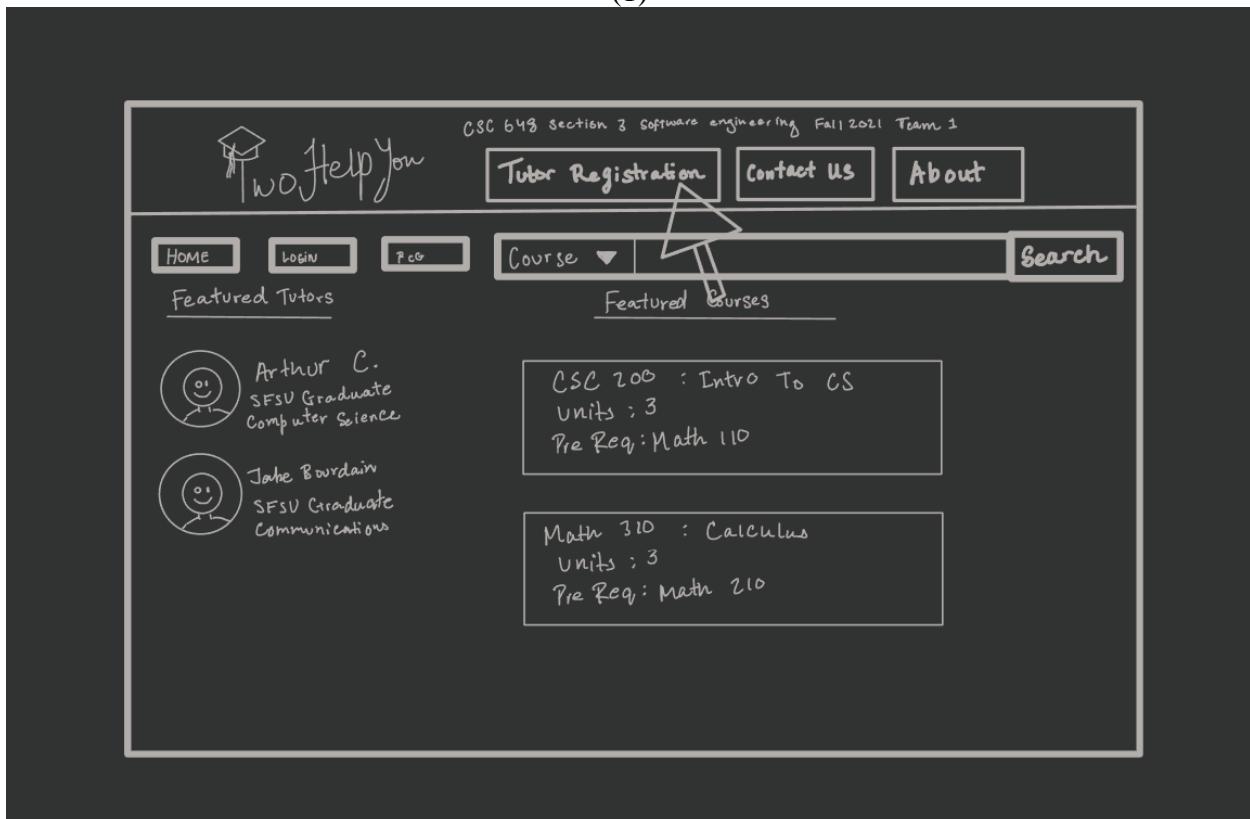
(6)



Use Case 2:

Anish wants to sign up as a tutor on TwoHelpYou. (1) He clicks the registration link on the home page. (2) He fills out the registration form and clicks submit. (3) He is prompted to log in, and he does so. (4) Anish receives a confirmation that his application has been submitted.

(1)



(2)

A hand-drawn wireframe of a web page titled "Tutor Registration". The page has a header with a logo, navigation links, and a search bar. The main content area contains fields for First Name, Last Name, Email, and Resume/Picture uploads, along with a large "Submit" button.

CSC 648 Section 3 Software engineering Fall 2021 Team 1

TwoHelpYou

Tutor Registration | Contact Us | About

HOME LOGIN REG All ▾ Search

Tutor Registration

First Name

Last Name

Email

Upload Resume

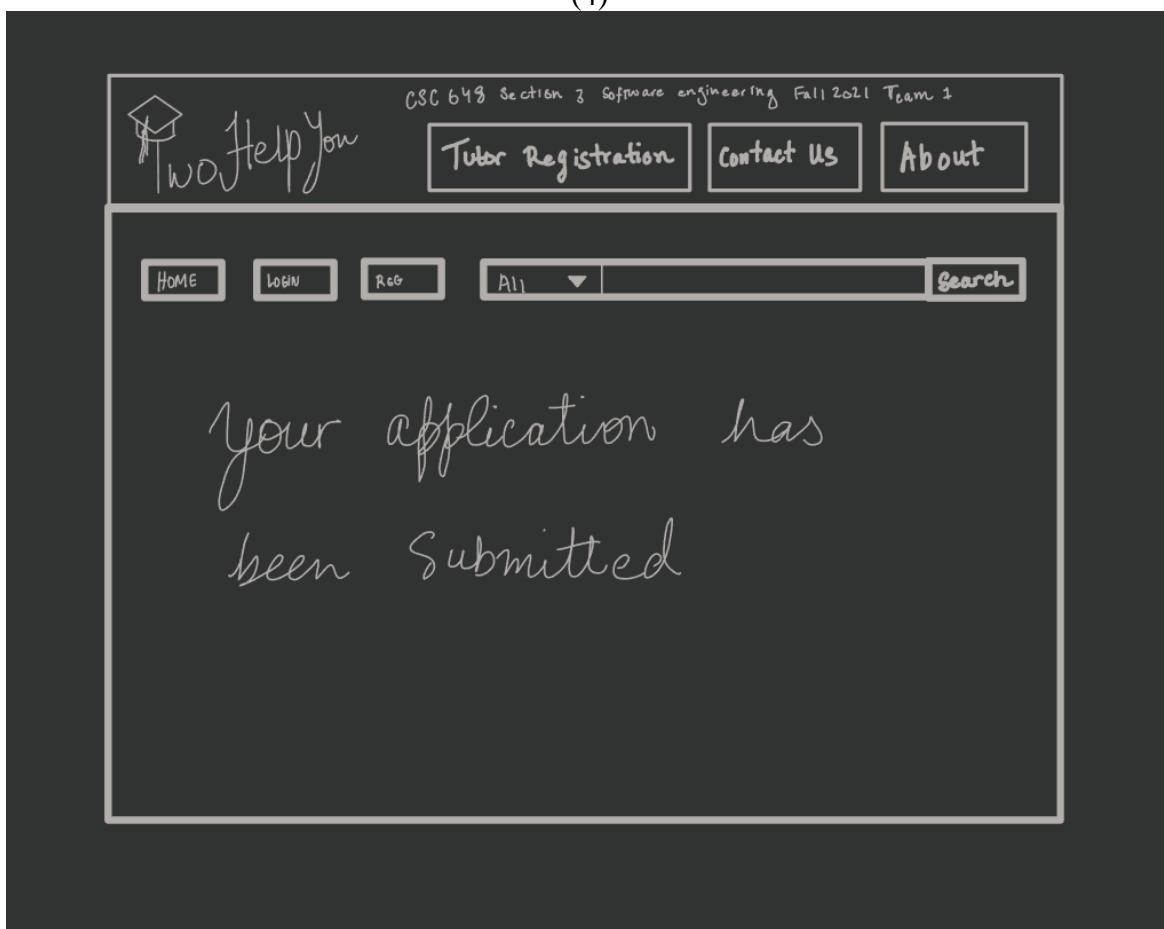
Upload Picture

Submit

(3)

A hand-drawn wireframe of a web page for 'Two Help You'. The page has a dark background with white text and boxes. At the top left is a logo of a graduation cap with the text 'Two Help You'. To its right is a header with the text 'CSC 648 Section 3 Software engineering Fall 2021 Team 1'. Below the header are three buttons: 'Tutor Registration', 'Contact Us', and 'About'. A horizontal navigation bar below the header contains 'HOME', 'LOGIN', 'Reg', 'Courses ▾', 'CSC 317', and a 'Search' button. The main content area is a login form. It includes fields for 'Email' and 'Password', a large 'LOGIN' button with a cursor arrow pointing to it, and a 'Register' button. There is also a link 'Don't have an account?'. At the bottom of the form is a 'Submit' button and a placeholder 'Extra info / questions'.

(4)



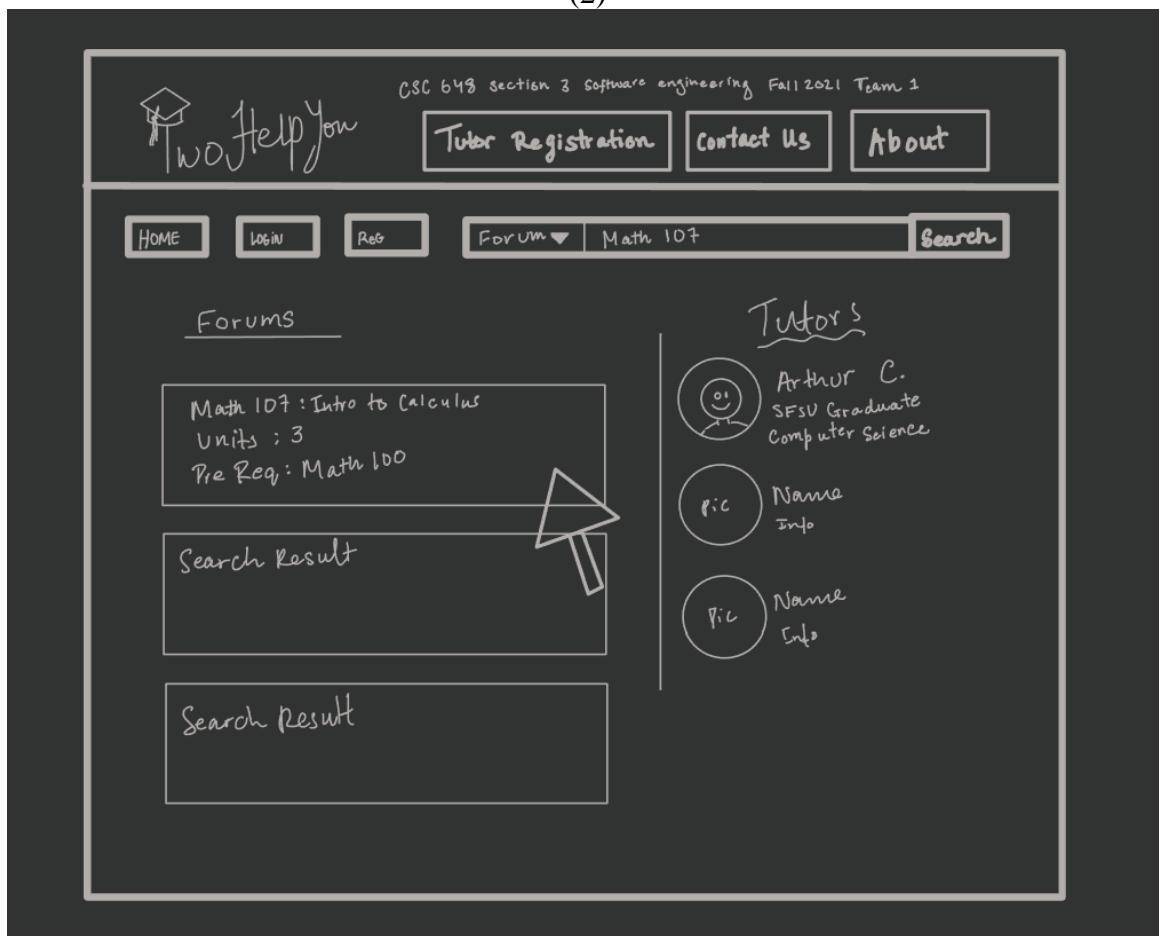
Use Case 3:

Calvin needs help on one of his Math 107 homework questions. (1) He uses the TwoHelpYou search function to search for forums related to his class. (2) He is presented with search results that contain forums related to math 107, and he selects one that fits his needs. (3) He is taken to the forum page to see an answer posted by a verified tutor.

(1)

The screenshot shows a web application interface for "TwoHelpYou". At the top, there is a logo with a graduation cap icon and the text "TwoHelpYou". Below the logo, a navigation bar includes links for "Tutor Registration", "Contact Us", and "About". The main menu bar contains "HOME", "LOGIN", "PCG", "Forum", "Math 107", and a "Search" button, which has a large mouse cursor icon pointing to it. On the left, there is a section titled "Featured Tutors" with two entries: "Arthur C." (SFSU Graduate Computer Science) and "Jake Bourdair" (SFSU Graduate Communications). On the right, there is a section titled "Featured Courses" with two entries: "CSC 200 : Intro To CS" (Units: 3, Pre Req: Math 110) and "Math 310 : Calculus" (Units: 3, Pre Req: Math 210).

(2)



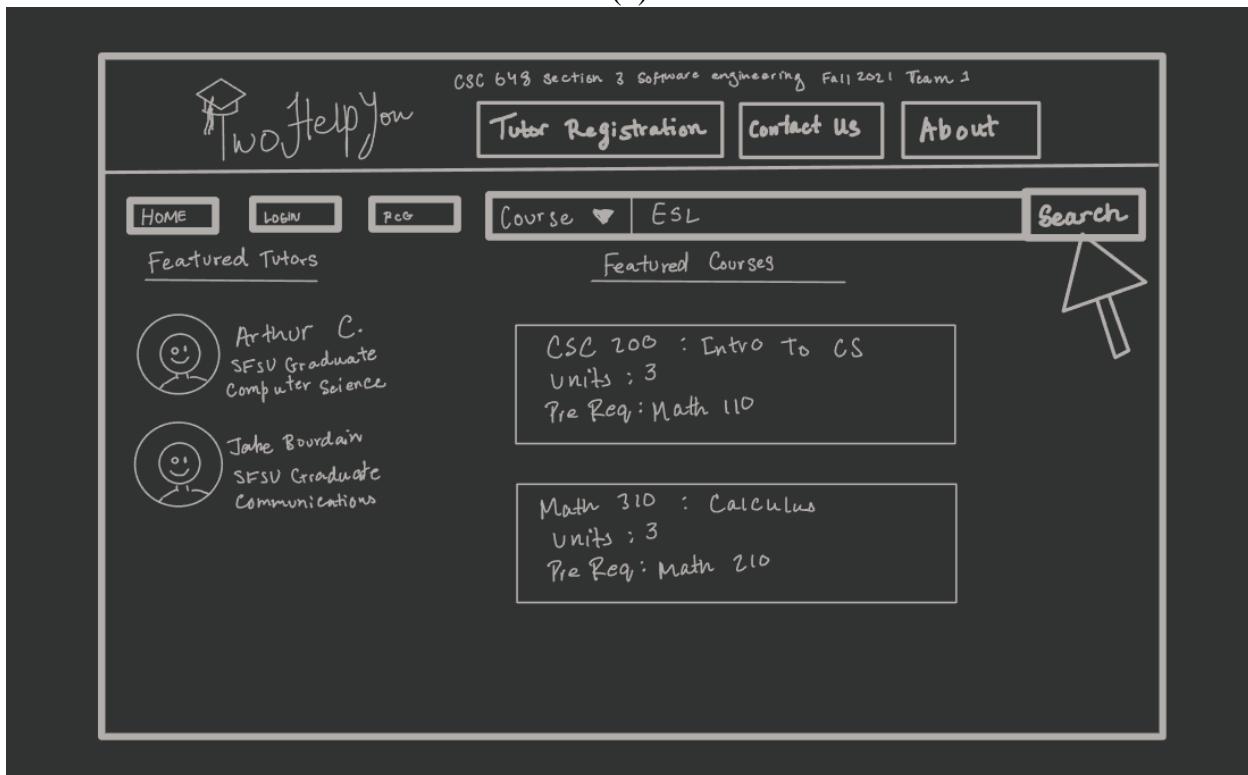
(3)

A hand-drawn wireframe of a forum post interface. At the top left is a logo of a graduation cap with the text "TwoHelpYou". To its right is a header bar with the text "CSC 648 section 3 Software engineering Fall 2021 Team 1". On the right of the header are four buttons: "Tutor Registration", "Contact Us", "About", and "Search". Below the header is a navigation bar with five buttons: "HOME", "Logout", "Rob", "Forums ▾", "Math 107", and "Search". The main content area has a title "Forum Title" and a "Post Re" button. It includes a "Post Content / Question" section with an "Author" icon. Below this is a "Responses" section containing two entries, each with an "Author" icon, "Content / Answer" text, and a "Verified Tutor" checkmark. The entire interface is set against a dark background.

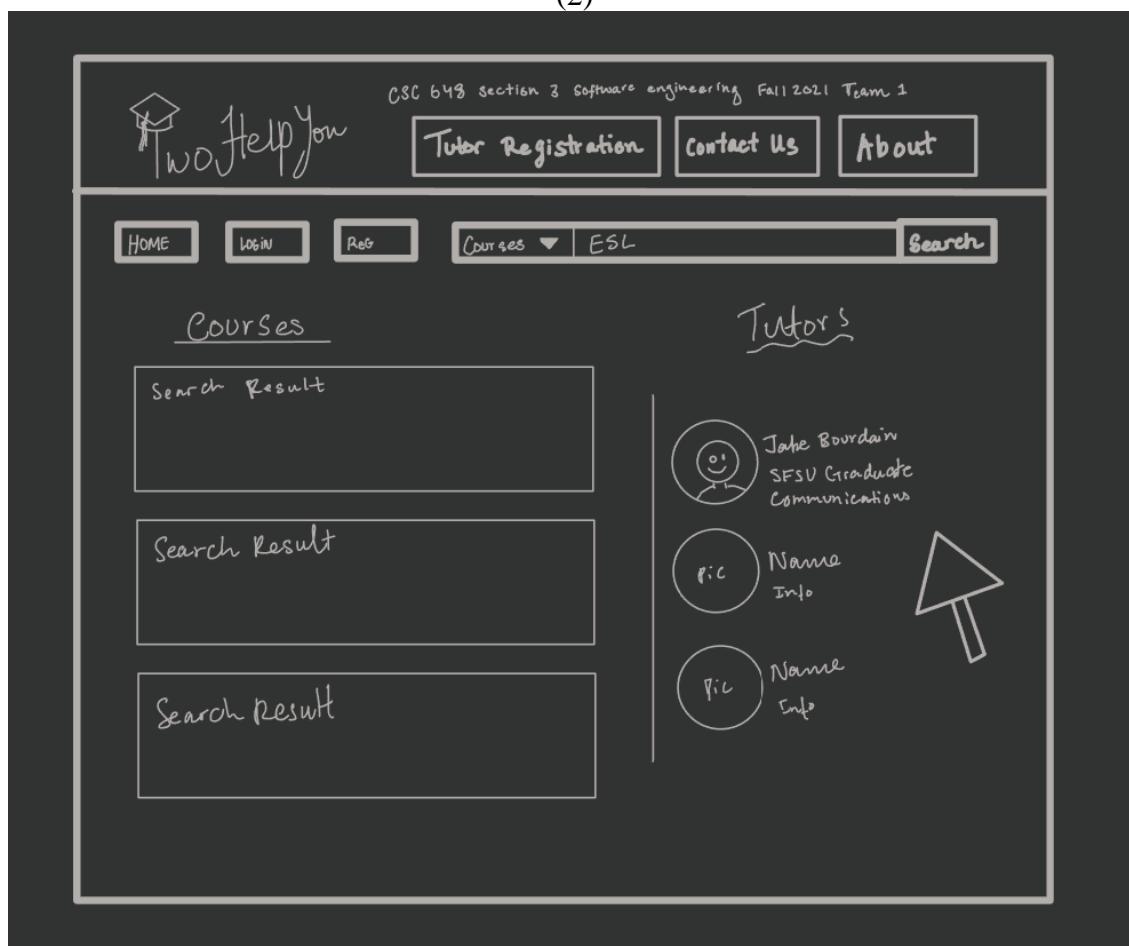
Use Case 4:

Salome needs help with her English course. (1) She uses the search function on TwoHelpYou to find her course. (2) Using the search results, she selects a tutor whom she likes. (3) Salome clicks on the schedule session button to set up a session with Jake (tutor). (4) She fills out the form and clicks submit. (5) She is then prompted to log in, and she does so. (6) She is given a confirmation that her request has been sent.

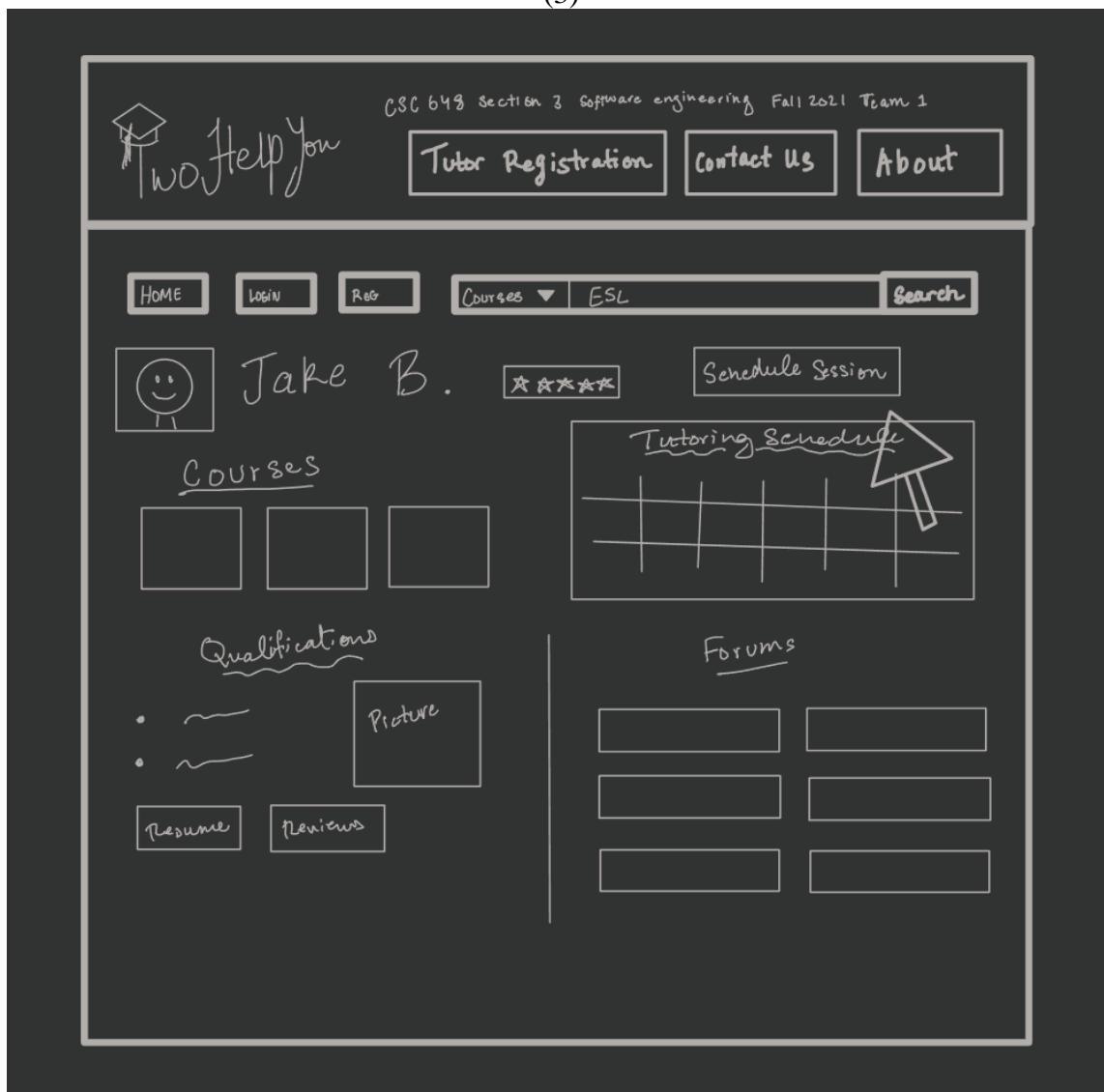
(1)



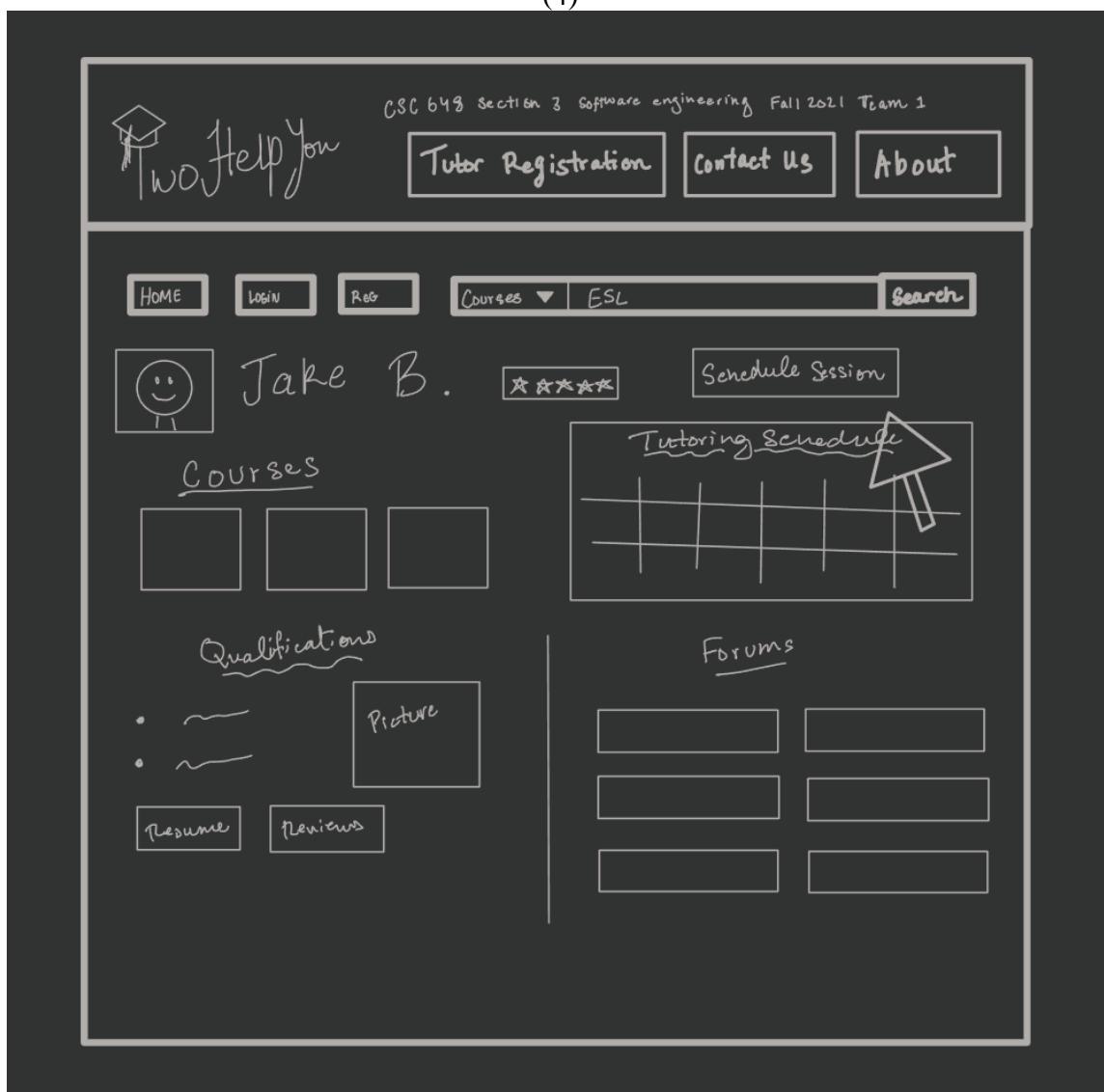
(2)



(3)



(4)



(5)

A hand-drawn wireframe of a web page for 'TwoHelpYou'. The page has a dark grey background. At the top left is a logo of a graduation cap with the text 'TwoHelpYou'. To the right is a header bar with the text 'CSC 648 Section 3 Software engineering Fall 2021 Team 1' and three buttons: 'Tutor Registration', 'Contact Us', and 'About'. Below the header is a navigation bar with buttons for 'HOME', 'LOGIN', 'Reg', 'Courses ▾', 'ESL', and a search bar. The main content area contains a login form with fields for 'email' and 'Password', and a 'LOGIN' button. To the left of the form, there are several vertical labels: 'Subj', 'Eric', 'Ses', and 'Pre'. Below the form is a link 'Don't have an account? Register'. At the bottom left is a large text area labeled 'ExtraInfo/questions' and at the bottom right is a 'Submit' button. A hand-drawn mouse cursor points towards the 'LOGIN' button.

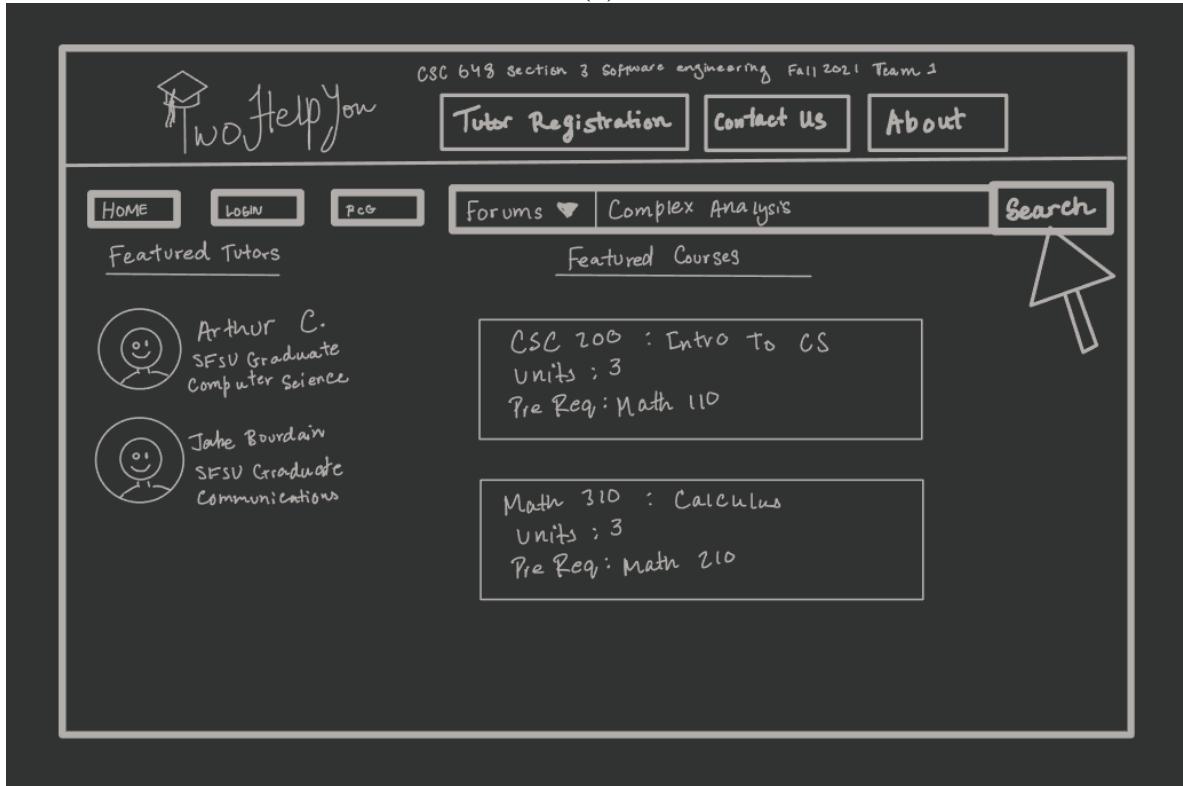
(6)



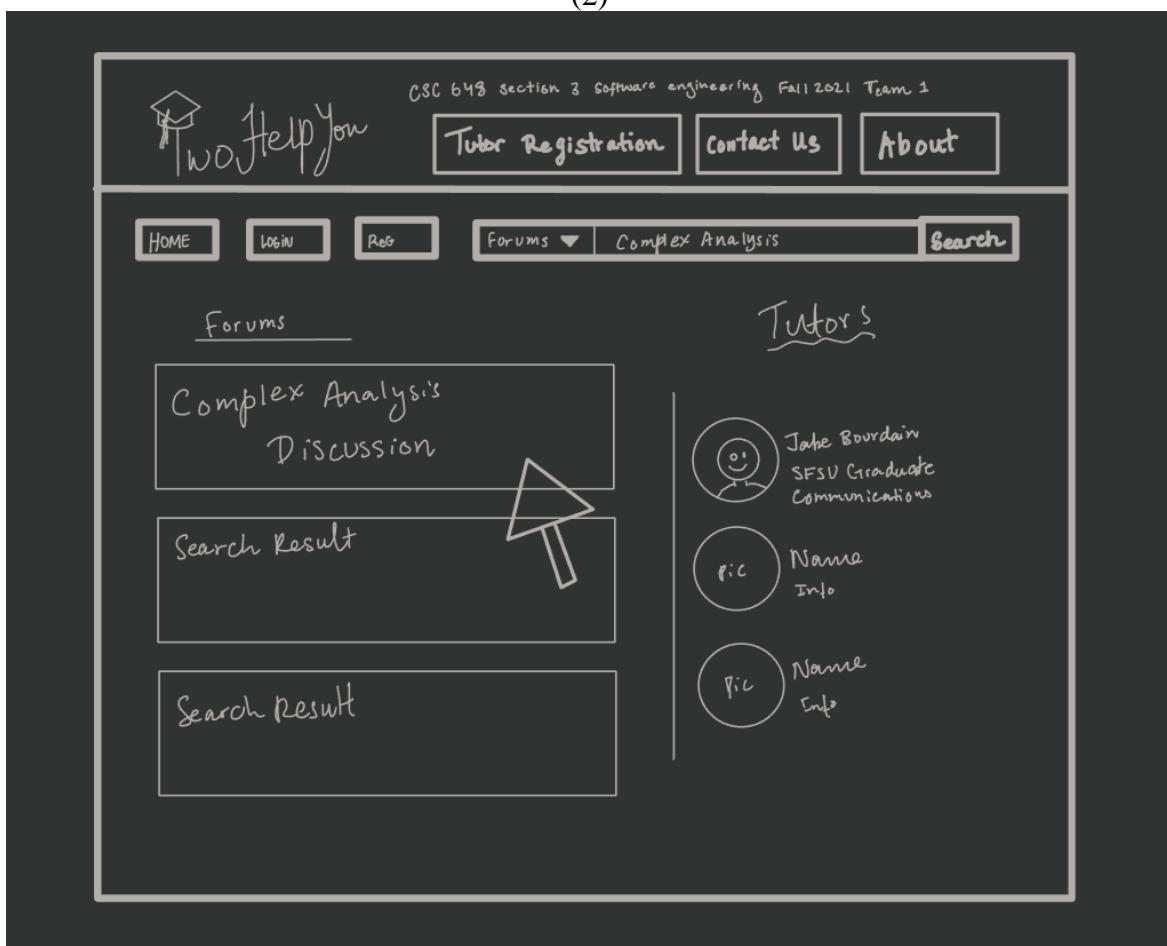
Use Case 5:

Theodora wants to participate in extracurricular discussions related to Complex Analysis in her free time. (1) She uses the search function of TwoHelpYou to look for forums related to Complex Analysis. (2) She is served several search results, which are forums that relate to Complex Analysis. She selects one she thinks is interesting. (3) She is taken to the forum page, where she clicks the post reply button to contribute to the discussion. (4) She is then prompted to log in, and she does so. (5) Theodora can now use the text box and post reply button to post her response to the forum.

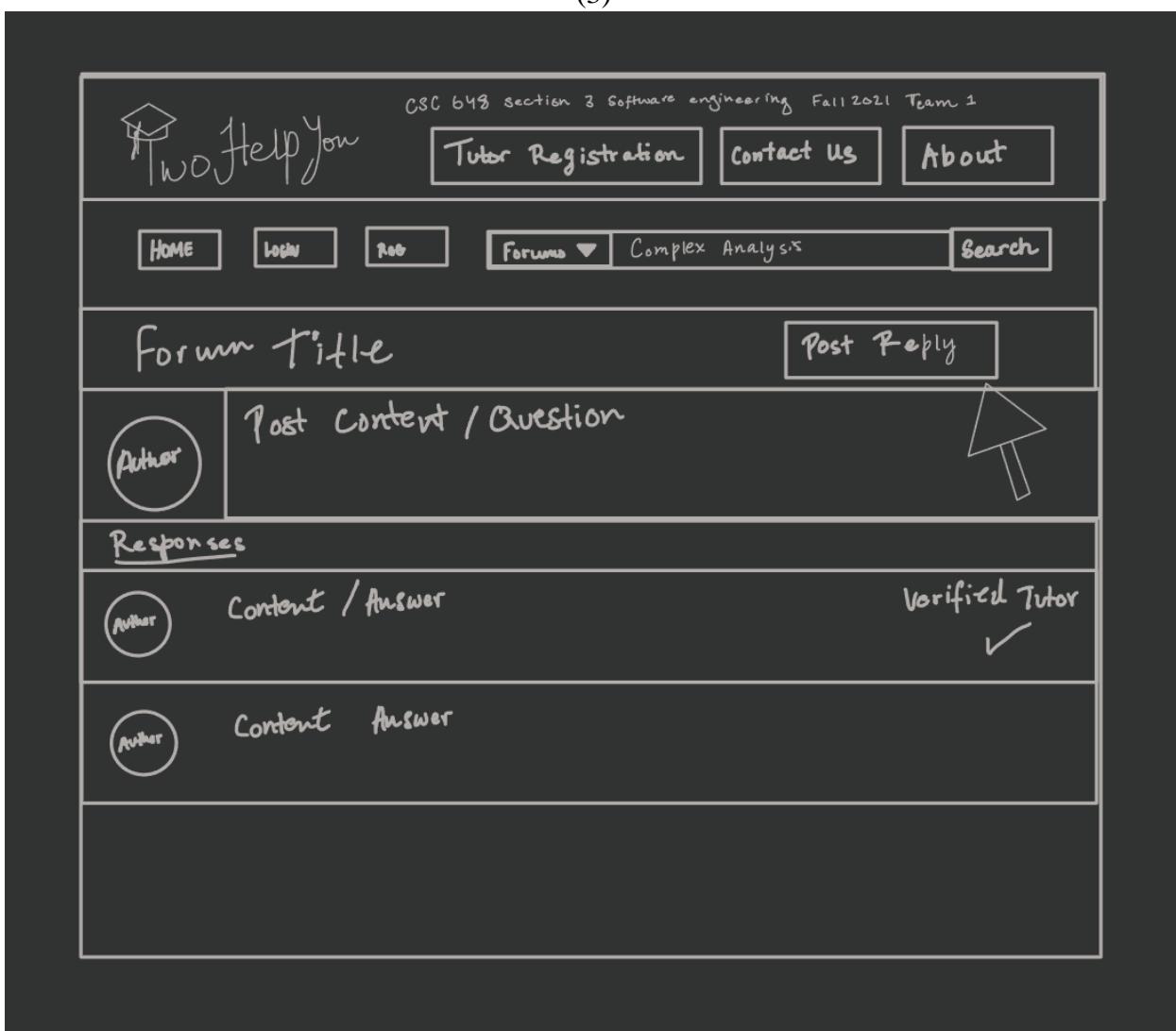
(1)



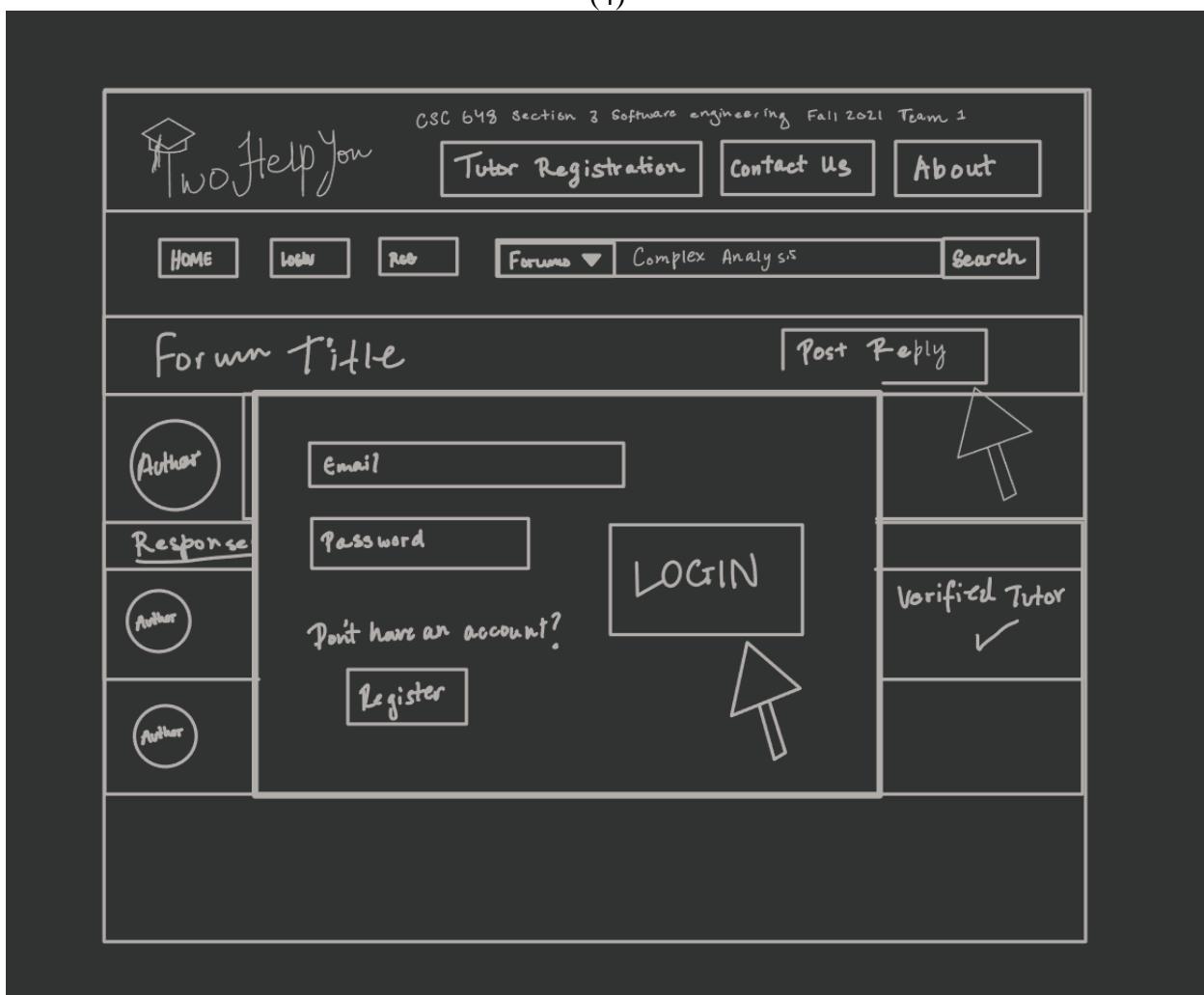
(2)



(3)



(4)



(5)

A hand-drawn wireframe of a forum post interface on a dark background. At the top left is a logo with a graduation cap and the text "Two Help You". To its right is the text "CSC 648 Section 3 Software engineering Fall 2021 Team 1". A horizontal navigation bar contains "Tutor Registration", "Contact Us", and "About" buttons. Below this is a secondary navigation bar with "HOME", "Login", "Logout", "Forums ▾", "Complex Analysis", and a "Search" input field. The main content area starts with a "Forum Title" input field and a "Post Reply" button. Below it is a "Post Content / Question" section with a "Author" icon and a text input field. The next section is labeled "Responses" and shows a "Content / Answer" section with an "Author" icon, a "Verified Tutor" checkmark, and another "Author" icon with a "Enter text reply" input field and a "Post" button. A mouse cursor icon is positioned over the "Post" button.

5. High level Architecture, Database Organization summary only

Main Database Schema:

1. User table
 - id (primary key)
 - first_name
 - last_name
 - username(unique)
 - email(unique)
 - password
 - active
 - created
 - photopath
 - thumbnail
2. Post table
 - post_id (primary key)
 - availability
 - authorized
 - user_id (foreign key)
 - course_id(foreign key)
 - post_creation
3. Forum table
 - forum_id (primary key)
 - title
 - date_time
 - user_id(foreign key)
4. Message table
 - message_id (primary key)
 - time
 - message
 - receiver_id (foreign key)
 - sender_id (foreign key)
 - related_course_id (foreign key)
5. Reviews table
 - review_id(primary key)
 - review
 - rating
 - user_id (foreign key)
 - post_id (foreign key)
6. Course table
 - course_id(primary key)
 - course_prefix
 - course_postfix

7. Comment table

- comment_id(primary key)
- comment
- forum_id (foreign key)
- user_id (foreign key)

Media Storage: The uploaded image by the users will be stored in a static folder. Database will be storing the relative path to the image.

Search: Using LIKE query, we can match part of the full data present in a column. Along with wildcards like % in different combinations, we can match our keyword with the pattern of the data present in columns.

Rating: Algorithm to find the average of the rating from the users will be used.

Reviews: Reviews will be sorted by the date created from newest to oldest.

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

Skill Risks:

- The team needs to learn the API: Utilization of APIs required like Google Analytics API will require time to learn and implement despite being ensured that the tools are easy to learn and use. The best way to learn how to use the API is to practice implementing it; currently, we are not at the stage that requires its usage.
- Team members need to familiarize themselves with frontend tools: Needing to refresh and learn new frontend tools like Handlebars and React requires actual usage and implantation that has not taken place yet due to not needing to utilize the tools to improve the website. As the team begins to build the website further, the team will remember or reach out to appropriate sources of knowledge to work on the frontend development.
- The team needs to work with React: Many team members are unfamiliar with React outside of those utilizing it in another class. Finding good sources and reaching out to known colleagues familiar with the tool would be the best approach to improving and using it for frontend development.
- Scope: The scope of the project can easily get out of hand due to how ideals can easily influence the development of the project, not having clear list of tasks to accomplish can result in any project to become stuck in development hell due to developers adding features without pause and resulting in the failure to deploy in a timely manner. By making a clear list of features early on and prioritizing them, it makes it possible to deliver a functional product in a timely manner, specifically by limiting the number of priority one tasks. Also known as limiting the scope of the project.

Technical Risks:

- CPU/Server utilization using Amazon's free tier of AWS: Although addressed in milestone 1, using the free tier of AWS has risk due to limitations imposed. Exceeding the limits will charge fees on the account. If the fees remain unpaid can result in account suspension. The careful monitoring of the account is the best approach to ensure that the account remains active by having the backend lead regularly checks the cloud server billing. Although efforts have been made to ensure that no additional cost is incurred by setting everything manually, it is not guaranteed.
- Github usage when working on multiple parts in parallel: The risk of merge collisions is ever prevalent when working with various branches and individuals on any project. By carefully testing the branches before and after each merge by leads and Github master heavily reduces issues. This ensures that the Main branch always remains operational and stable.

Team Risks:

- Frontend and backend communication on the connection between UI with database: Naming variables to populate or generate database items requires strong communication between the two leads and unification within the respective ends to ensure uniformity. Constantly reviewing team member codes and adhering to a uniformed naming convention and frequent communications between leads can significantly reduce issues.

Which was implemented and practiced throughout the development of the vertical prototype.

- Pacing of work and members so that workflow is continuous: The delegation of work and tasks in a way that works is not in a state of waiting due to requiring a task to have completed. By establishing and enforcing internal deadlines enormously decrease tasks gridlock.

7. Project management

To ensure the successful delivery of Milestone 2 and the remaining project as we advance, the team has incorporated the usage of Asana to keep track of internal deadlines and assigned tasks. The team has successfully utilized the tool in Milestone 1 to ensure the timely completion and submission of Milestone 1.

Aside from using Asana to track tasks and internal deadlines, the team holds meetings utilizing Discord and Zoom as platforms. The Team Lead, Frontend Lead, and Backend Lead meets every Friday to coordinate tasks and communicate any questions or concerns. The Frontend Lead and Backend Lead meet up with their respective development members to work and coordinate when necessary. All meetings that take place have minutes taken and posted for all members to inform everyone what is going on. Aside from the scheduled meetings, other meetings are held, when necessary, primarily using Discord.

Outside of team meetings, the team has chosen to utilize Discord as an instant messaging platform to communicate freely. The use of the platform allows the team to post announcements, questions, updates, and most importantly, keep everyone up to date with the project.

The team has agreed to the Github Master's repository management with communications with the Leads' needs. This management style revolves around having two primary branches, which are the Main and Development branches. Aside from these two branches, new branches are constantly being created and deleted as needed for development. No members are to code onto the two primary branches directly. Every sub-branch designed for development will be tested and reviewed, then merged into the development branch, where it will be checked again prior by another team member. Only when the development branch is stable, and it is deemed necessary to be merged into the main branch where it will be tested before pushing to the AWS EC2 instance.

Milestone 3:

Summary of Milestone 3 ZOOM meeting review with Prof. Petkovic and plans for further development

Team number: 01

Meeting date: 2021 November 17

Summary of feedback on UI (list of items, note that details are available in ZOOM recording):

Overall the UI needs a lot of work. It was clear that the design tended to be too mechanical nor was it descriptive or clear enough for users to navigate without guidance. A lot of feedback was given here in regards to UI/UX.

The feedback is listed:

- Home there should be a logo, replacing the home underline link.
- Class notation is too big, Make the yellow bar taller and the purple bar smaller.
- All submit buttons should have a cancel button for forms.
- When selecting submit it should request to login instead if not logged in.
- Navbar:
 - Make nav links look like buttons.
 - Navbar Search needs to be persistent on all pages.
 - Navbar Search and Post option course selection should utilize the same layout.
 - Pull down needs to say major as a placeholder.
 - Searchbar should have major as default followed by all then all other majors.
 - Have text entry field say “Course Number eg 101”
- To make a post should be in the navbar and it should be visible all the time.
- Tutoring Post:
 - When a post is created it needs to notify the user it might take up to 24 hours to be approved.
 - Tutoring Post Request Page is too mechanical to pick something nicer.
 - Have fields as one above the other.
 - Please enter the major pull down
 - Enter the course number
 - Show an example of how to enter it.
 - Mark Mandatory fields or say all fields are mandatory.
 - Qualifications are not clear. (i.e. upload cv)
- Landing page/Results:
 - Have “sorted by” be more prominent.
 - Remove highest-rated and change to most recent.
 - Cards:
 - Drop reviews since it is p2
 - On cards need to say
 - Availability: “fill in”
 - Course: “csc 210”
 - Tutor Name: “bob”
 - Needs main action button
 - Contact tutor
 - Link message to the course number.

- See tutor page
 - Have buttons maybe make it yellow.
 - Make button clearer, eg message tutor.
 - Have a separate button for each post
- Prefill message page with stuff from the database such as
 - To
 - From
 - Course
 - Date
- Use more English to describe buttons.
- Don't worry so much about prettiness but use more descriptive English to describe what things do.

Summary of feedback on code and architecture:

It was good that the code was separated into client-server directories instead of having them all in one big folder. The inclusion of the header in the files was good. Comments, spacing, variable names were consistent. Overall code and architecture are OK.

Summary of feedback on github usage:

The use of main and development branch was good. Do try to avoid having one super branch where everyone tries to commit to and deal with conflicts. The actual commits were reasonably named and let readers know what they need to know. It was beneficial to development that only two people have access to change the main branch. Overall the github is OK.

Summary of feedback on DB:

Use of “pointers” for posts to share all the courses/subjects was wonderful. It would be beneficial to have course_id as part of the message table as well so that it can be addressed what the message is in context to. Looking at the user table it was good that the password is encrypted. Overall the backend is in good shape.

Summary of feedback on teamwork:

No feedback was given about teamwork.

Any other comments and issues:

In terms of the overall look of the website, the colors are fine to keep it simple and clean. Important to not worry about prettiness but use more descriptive English to describe what things do. It would be helpful to have a dashboard for logged-in users. The dashboard should say hello to the user and show the number of messages and number of posts. It is important to have the same navbar for all pages.

Check Point (CP) given, DUE:

No explicit checkpoints were given; however, it was implicit that the feedback on the UI was to be completed and focused on prior to proceeding to the next milestone. Internally as a group, getting the UI feedback implemented as soon as possible was addressed by establishing tasks with internal deadlines.

List below agreed upon P1 list of features for final delivery which constitute product plan.
NOTE: after this meeting, the team focuses solely on this P1 list of features, e.g. the development is in “feature freeze mode”. All listed P1 features (no more no less) MUST be delivered in usable way, free of bugs

The Priority 1 focus are:

- Login
- Registration
- Post
- Search + Details
- Messaging

Plan of action:

A majority of the items to be addressed above can be worked independently from each other and should not necessarily conflict. It is imperative that strong communication particularly amongst those working in the frontend to follow a specific style and annunciation of any changes. There are a few overlapping changes that need to be made and some necessary implementations that require assistance from backend members. However, the majority of the work is by nature frontend User Interface and User Experience. With the nature of tasks being majority design implementation, these tasks should be completed relatively quickly; hence, with Thanksgiving break in mind, it should be completed prior to November 29th. The tasks for specifics will be listed using a project management tool with internal deadlines assigned based on how long it should take to complete the specific tasks. As for some of the features that were mentioned but not implemented or overtly discussed such as the lazy login and registration, it will be a backend priority. All tasks will be reevaluated on November 29th to determine progress in hopes to meet unannounced deadlines.

Milestone 4:

SW Engineering CSC648/848 Fall 2021

TwoHelpYou

Project Application And Name: Provide tutoring to SFSU students – "TwoHelpYou."

Team Number: Team 01

Team Members and Roles:

19. Justin Lam (Team Lead) - jlam18@mail.sfsu.edu
20. Wesley Xu (Front-End Lead) - wxu3@mail.sfsu.edu
21. Dinesh Thapa (Back-End Lead) - dthapa@mail.sfsu.edu
22. Aviral Puri (Github Master) - apuri2@mail.sfsu.edu
23. Chung Hei Fong
24. Kurt Resayo

Milestone: Milestone 4

Date: December 10, 2021

History:

Version	Date
M4V1	December 10, 2021

Table of Contents

1. Product Summary.....	60
2. Usability Test Plan.....	61
3. QA Test Plan.....	63
4. Code Review	65
5. Self-check on best practices for security	68
6. Self-check: Adherence to original Non-functional specs	69

1. Product Summary

Name of the product: TwoHelpYou - A tutoring site was developed to help SFSU students.

Product summary

8. Registration
 - Users are able to register an account with the website.
9. Login
 - Users are able to log in with their accounts and utilize website features.
10. Search
 - Users can use the search bar function to search for offered courses.
11. Search results
 - Executing the search show posts regarding the query to the user.
12. Post
 - Registered users are allowed to post offers to provide tutoring to other users.
13. Messaging
 - Registered users can send messages to other users offering to tutor.
14. Dashboard
 - Logged in users will see a dashboard that displays incoming messages and their posts.

URL of our website: <http://3.17.38.143:3000/>

2. Usability Test Plan

Test objectives:

One primary function that will be tested is the post form function, in which registered users can post their availability and which subjects they can help other users by providing tutoring sessions. This is being tested because we want to see if registered users can access the page, fill out the necessary information, submit a post. Following the submission, a moderator will review their submitted information and accept or deny their post. If a non-registered user accesses the page, fills out information, and hits the submit button, they will be met with an alert saying they either need to be logged in or register an account for the post to be posted submitted and reviewed. This function must be usable and bug-free since it is one of the critical core functions of the website for registered users to use and make posts when they need it. The post is crucial to the overall functionality of the website. It is the one feature that has to work to populate the website with the required content to publicize to peruse and make decisions on further interaction. Without the post's functionality, no tutoring sessions would be offered on the website. Thus if the post function does not work, users on the site will go to other competitor tutoring sites leading to a domino effect of the tutoring site losing web traffic. Eventually, it will get shut down to no one going to it, then everyone who works on the site will be out of the job due to lack of budget. We want to avoid that from happening, so the post function must be tested thoroughly to see if it is usable and check for any issues. Such issues consist of bugs that need to be ironed out, any exploits that can be stopped, and any quick improvements that need to be implemented before the official release.

Test background and setup:

For the system setup for the tester to use, it is recommended that they use a working computer that can connect to the internet. The operating systems that can be used are Linux, Windows, or macOS; if it's usable. Then they need to choose at least two website browsers to test the site on to see if it works on multiple browsers, i.e., Google Chrome, Firefox, Edge, to name a few. At the starting point, the user will see the website and a button for posting availability in a subject they can offer to tutor. They press the button and see the information they need to fill out, and once they submit all the required information, they then hit the submit button. An alert will pop up saying they need to be signed in or create an account to post availability for tutoring. Once the user signs in or registers for an account, they can go back to the post form page with all their information saved then hit the submit button. After the user hits the submit button, the information will then be reviewed by the site's moderator, and the request will be either approved or denied based on the user's qualification to be a tutor, their availability and the course they want to tutor.

The intended users of this site are SFSU students who need help with homework and topics in specific courses they are struggling with. Also, it is intended for SFSU students who want to tutor others in said homework and topics in particular courses.

The URL of the system to be tested is 3.17.38.143:3000/post_form.

What needs to be measured is to see if the post form function can process and send information to the website moderator, how accessible it is, and if the user is able to navigate through it easily.

Usability Task description:

Instructions for the tester: Follow the link to the website, go to the post form page by clicking on the post button, fill out the requirements, upload a document, then hit the submit button.

Evaluation of Effectiveness:

Effectiveness would be measured by if the user can fill out the post form and submit it, how many users make mistakes filling it out, and if users can upload a document.

Evaluation of efficiency:

Efficiency is measured by how long it takes to fill out the post form, how long it takes for users to find it, and to see the number of clicks it takes to fill it out and submit it.

Evaluation of user satisfaction:

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Filling out the post form is easy					
The instructions are easy to understand					
The post form is visually organized					

3. QA Test Plan

Test objectives: The ability of a registered and logged-in user to find, fill out and submit the tutor post form. The security against non-registered users submitting forms. The security against invalid inputs in form submission.

HW and SW setup (including URL):

- Access to an Internet connection
- Requires the installation of at least 2 web browsers.
 - o Google Chrome: <https://www.google.com/chrome/>
 - o Microsoft Edge: <https://www.microsoft.com/en-us/edge>
- Website URL: <http://3.17.38.143:3000>/
- Required Files: Using this link - <https://constitutioncenter.org/media/files/constitution.pdf>. Download the pdf.
- After installing the above-listed web browsers, click on the website URL, which will navigate you to the homepage of TWOHELPYOU. This will be the starting point of all tests.
- Expected Time: 30 minutes

Feature to be tested: Tutor Post Feature

Test#	Title	Description	Input	Expected Output	Result
1	Non-Registered User	Main Objective: confirm that non-registered users are not able to submit post forms.	Click the Post button on the navbar.	Tutor Application Page is displayed	PASS
			In the first the input field select "ACCT"	No errors should be displayed	PASS
			In the second input field enter "101"	Confirmation message should change to green	PASS
			Using the third input field enter "Mon-Fri 9am-5pm"	The input field labeled should gain a green border.	PASS
			In the fourth input box choose the constitution.pdf	Constitution.pdf should be displayed next to the choose file button.	PASS
			Click the submit button near the page bottom	A pop-up to login or register should display	PASS
2	Invalid Input	Main Objective: Confirm that forms cannot be submitted with invalid inputs	Click the login button on the right side of the navbar.	The website opens a pop-up window for login	PASS
			Input "tuser" into the input field labeled "Username"	A green message is displayed above the input field	PASS
			Input "Password!123" into the input field labelled "Password"	A green message is displayed above the input field	PASS
			Click the Login button	The pop up disappears and displays a green confirmation message.	PASS

			Click the Post button on the navbar.	Tutor Application Page is displayed	PASS
			In the first the input field select "ACCT"	No errors should be displayed	PASS
			Using the second input field labeled enter "11"	Message under the input label should change color to a red message	PASS
			In the third input field labeled enter "Mon"	The input field should gain a red border.	PASS
			Using the fourth input box choose the constitution.pdf file	Constitution.pdf should be displayed next to the choose file button.	PASS
			Click the submit button at the bottom of the page	The input box should warn the user and not submit.	PASS
3	Valid Input Main Objective: Confirm that forms with valid input are properly submitted and able to be reviewed by the moderators.		Click the login button on the right side of the navbar.	The website opens a pop-up window for login	PASS
			Input "tuser" into the input field labeled "Username"	A green message is displayed above the input field	PASS
			Input "Password!123" into the input field labelled "Password"	A green message is displayed above the input field	PASS
			Click the Login button	Pop up disappears and shows a green message.	PASS
			Click the Post button on the navbar.	Tutor Application Page is displayed	PASS
			In the drop down on the first input field select "ACCT"	No errors should be displayed	PASS
			In the second input field enter "101"	Input label should change color and display a green message	PASS
			Enter "Mon-Fri 9am-5pm" into third input field.	The input field should gain a green border.	PASS
			In the fourth input box choose the constitution.pdf	Constitution.pdf should be displayed next to the choose file button.	PASS
			Click the submit button at the bottom of the page	Should display the home page with a green confirmation message	PASS
			Await moderator to approve post	Post should appear on the home page	PASS

4. Code Review

From: Justin Wai Lam <jlam18@mail.sfsu.edu>
Sent: Wednesday, December 8, 2021 7:35 PM
To: Aviral Puri <apuri2@mail.sfsu.edu>
Subject: Post Function Code Review

Good Evening Avi,

I hope things are going well this semester for you.

For Milestone 4, we have the code review portion. I believe we are ready for QA and Usability testing regarding the code related to the Post functionality. The functions associated with Post need to be reviewed as they will be the focus of the testing. These are the files that represent most of the backend code relating to Post.

Please review these files, check if they adhere to coding conventions and readability standards:

- [csc648-03-fa21-team01/post.js at main · CSC-648-SFSU/csc648-03-fa21-team01 \(github.com\)](https://github.com/CSC-648-SFSU/csc648-03-fa21-team01)
- [csc648-03-fa21-team01/post_model.js at main · CSC-648-SFSU/csc648-03-fa21-team01 \(github.com\)](https://github.com/CSC-648-SFSU/csc648-03-fa21-team01)
- [csc648-03-fa21-team01/post_middleware.js at main · CSC-648-SFSU/csc648-03-fa21-team01 \(github.com\)](https://github.com/CSC-648-SFSU/csc648-03-fa21-team01)

Thank you for the hard work!

Regards,
Justin Lam

Re: Post Function Code Review

Aviral Puri <apuri2@mail.sfsu.edu>

Wed 12/8/2021 7:39 PM

To: Justin Wai Lam <jlam18@mail.sfsu.edu>

Hi Justin,

I have completed code review of the files related to backend post functionality. My comments and feedback have been posted to the code-review-post branch. Below is a brief overview of my findings followed by a detailed checklist of conventions for each file reviewed.

Overview:

Overall the code looks great! It is very readable and functions to specs. The github comments are also very descriptive and make it very easy to follow the development process. Some of the header and function descriptions could use a little more detail but it not absolutely necessary. The only issues found were a few variable names across several files that may have been written before coding conventions were set up and will need to be updated to match the current convention.

Breakdown by file:

Post_Middleware.js:

- Header is present and contains the relevant information about the file
- All functions have comments with parameters, return and descriptions
- Variable and function names are consistent and follow conventions
- Github commit comments are descriptive and accurate

Post_Model.js:

- Header is present and contains the relevant information about the file
- A few variable names don't follow coding conventions such as: sqlSearchTerm and baseSQL
- All functions have comments with parameters, return and descriptions
- Github commit comments are descriptive and accurate

Post.js:

- Header is present and contains the relevant information about the file
- A few variable names don't follow coding conventions such as: searchQuery and searchTerm
- Variable and function names for the rest of the file are consistent and follow conventions
- All functions have comments with parameters, return and descriptions
- Github commit comments are descriptive and accurate

Thanks and regards,

Aviral Puri

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

```

20  /*
21   * Functions takes a string and builds a query to match the information
22   * and returns results that is used to make the tutoring post/cards.
23   * Sorted by creation in descending order
24   * @param search string of search request
25   * @returns neccesary information to make the tutoring post/cards
26   */
27  PostModel.Search = (search) => {
28      let sqlSearchTerm = '%' + search + '%'; // Variables don't follow naming convention
29      let baseSQL = `select p.post_id, c.course_prefix, c.course_postfix, p.availability,

```

```

238 /**
239  * Gets post id from the database
240  * @param postid
241  * @returns results
242  */
243 PostModel.GetPostById=(postId) =>{ // Variable name does not follow convention
244     let baseSQL=

```

```

22
23 /**
24  * Builds the string that is needed to forward to post middlware
25  * based on the intial response and queries content will
26  * results in different responses that generally returns
27  * the information needed to build the tutoring post/cards
28 */
29 router.get('/search', async (req, res, next) => {
30     let searchQuery = (req.query.search).split(','); // Variable name doesnt follow convention
31     let searchTerm = ''; // Variable name doesnt follow convention

```

5. Self-check on best practices for security

Asset to be protected	Types of possible/expected attacks	Your Strategy to mitigate/protect the asset
Website Server (AWS)	DDOS attack	<ul style="list-style-type: none"> • AWS built-in security service.
	Unauthorized access to AWS.	<ul style="list-style-type: none"> • Strong password protected. • An SSH key is required to access AWS.
The database	Unauthorized attempt to access the database.	<ul style="list-style-type: none"> • The default password has been changed to a more secure password. • Current access does not use root as user.
	SQL injection.	<ul style="list-style-type: none"> • Search request does not permit requests longer than 40 characters. Any attempt to do so will provide a message failing to execute. • Most of the input fields utilize frontend and backend validation before execution.
User account info within the database	Password theft.	<ul style="list-style-type: none"> • All password within the database is encrypted using bcrypt. • Special format for password registration.
	Unauthorized user registration.	<ul style="list-style-type: none"> • User email is required to include "sfsu.edu" or "mail.sfsu.edu" in registration.
Tutor post data	Corruption and attempts to access the user accounts to post inappropriate content.	<ul style="list-style-type: none"> • Before the public can see a user post offering tutoring, the admin will need to review and approve all post.

6. Self-check: Adherence to original Non-functional specs

#	Non-Functional Requirement	Status
1	Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in Milestone 0. Application delivery shall be from chosen cloud server.	DONE
2	Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of two major browsers.	DONE
3	All or selected application functions must render well on mobile devices.	DONE
4	Data shall be stored in the database on the team's deployment cloud server.	DONE
5	No more than 50 concurrent users shall be accessing the application at any time	DONE
6	Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.	DONE
7	The language used shall be English (no localization needed)	DONE
8	Application shall be very easy to use and intuitive	DONE
9	Application should follow established architecture patterns	DONE
10	Application code and its repository shall be easy to inspect and maintain	DONE
11	Google analytics shall be used	DONE
12	No email clients shall be allowed.	DONE
13	Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in UI.	DONE
14	Site security: basic best practices shall be applied (as covered in the class) for main data items	DONE
15	Application shall be media rich (images, video etc.). Media formats shall be standard as used in the market today	DONE
16	Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development	DONE
17	For code development and management, as well as documentation like formal milestones required in the class, each team shall use their own github to be setup by class instructors and started by each team during Milestone 0	DONE

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18	The application UI (WWW and mobile) shall prominently display the following exact text on all pages "SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only" at the top of the WWW page. (Important so as to not confuse this with a real application)	DONE
----	---	------

3. Product Screen Shots

Home Page (Before Login)

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

About US Major Course Number e.g. 101 Post Login Register

6 most recently created posts

Course: ACCT 101 Contact tuser Availability: Mon-Fri 9am-5pm Tutor's Profile:  tuser	Course: ADM 300 Contact Ricky Availability: Mon-fri 4pm-5pm Tutor's Profile:  Ricky
Course: CSC 415 Contact CNash Availability: Mon-Fri 9am-5pm	Course: MATH 325 Contact CNash Availability: Mon-Fri 9am-5pm

Home Page and Dashboard (After Login)

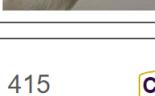
SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

 About US Major Course Number e.g. 101 Post Logout

Hello Caleb 2✉️

6 most recently created posts

Course: ACCT 101 Contact tuser	Course: ADM 300 Contact Ricky
Availability: Mon-Fri 9am-5pm	Tutor's Profile: 
Tutor's Profile: 	Availability: Mon-fri 4pm-5pm
Course: CSC 415 Contact CNash	Course: MATH 325 Contact CNash
Availability: Mon-Fri 9am-5pm	Availability: Mon-Fri 9am-5pm

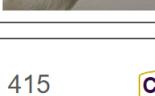
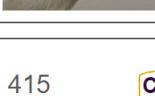
SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

 About US Major Course Number e.g. 101 Post Logout

Hello Caleb 2✉️

6 most recently created posts

X Hello Caleb You have: 2 Message(s) and: 11 Post(s) 	Course: ADM 300 Contact Ricky
Tutor's Profile: 	Availability: Mon-fri 4pm-5pm
Availability: Mon-Fri 9am-5pm	Tutor's Profile: 

Search Results Page

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

 About US CSC ▾ 2 Post Login Register

Showing results for: CSC 2

5 most recently created posts
that are relevant.

Course: CSC 256 Contact CNash Availability: Mon-Fri 9am-5pm Tutor's Profile: CNash 	Course: CSC 230 Contact CNash Availability: Mon-Fri 9am-5pm Tutor's Profile: CNash 
Course: CSC 220 Contact CNash Availability: Mon-Fri 9am-5pm Tutor's Profile: CNash 	Course: CSC 211 Contact CNash Availability: Mon-Fri 9am-5pm Tutor's Profile: CNash 
Course: CSC 210 Contact CNash Availability:	

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

Login Form

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

 About US Major ▾ Course Number e.g. 101 Post Login Register

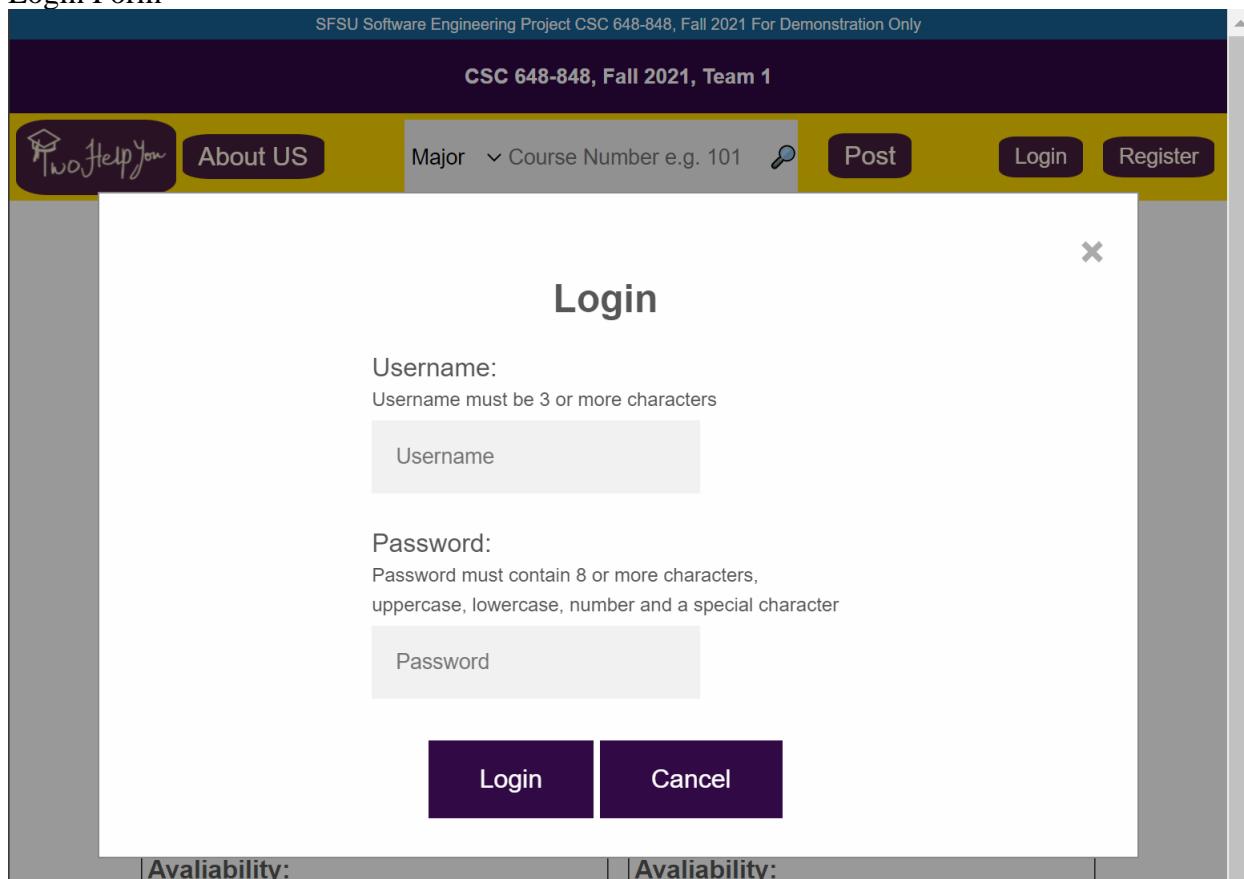
Login

Username:
Username must be 3 or more characters

Password:
Password must contain 8 or more characters,
uppercase, lowercase, number and a special character

Login | **Cancel**

| Availability: | Availability: |



Register Form

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1



User Registration Form

First name:

Last name:

Username:
Username must be 3 or more characters

Email:
Email address must end with sfsu.edu or mail.sfsu.edu

Password:
Password must contain 8 or more characters, uppercase letter, lower case letter, number and a special character

Confirm Password:

Upload Image for Profile Picture

No file chosen

Uploading a picture is optional, if no picture is provided a default will be used

Please Read and Accept
 [Term of Service](#) and [Privacy Rules](#)

I agree to the Term of Service and Privacy Rules.
 I am 13 years or older.

Tutor Application Post Form Page

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

 About US CSC Course Number e.g. 101 Post Login Register

Tutor Application

Please select the subject (Required)*

Major ▾

Please enter course number (Required)*
Course number must be 3 numeric characters
ex: 310

Please enter your availability (Required)*
Please separate different time slots with a comma as show below
ex: Mon-Fri 9am-5pm, Sat 2pm-6pm

CV/Resume | Why you are qualified to tutor this course (Required)*

Choose File No file chosen

Please Note: Applications will take up to 24 hrs to review

Submit Cancel

Send Message Form Page

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

 About US CSC Course Number e.g. 101 Post Login Register

Message Center

To: Ricky

Date: 12/15/2021

Course: ADM300

Please enter your message below

Type your contact information and the subject you want to ask here
(i.e:
Phone: (123)123-1234
Email: 1234@****.com
Subject: about homework

From: Anon

Send **Cancel**

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Received Message Page

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

 About US CSC Course Number e.g. 101 Post Logout

Hello
Caleb
2✉

Messages

From: **Ricky** 12/6/2021, 12:11:14 PM

Hello, I would appreciate the help for this class. Can you call me at (312) 222-4125.

From: **ABell** 12/6/2021, 1:48:28 PM

Can you help me with this class? Please reach me @ (415) 222-1367.

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

User Profile Page

The screenshot shows a user profile page for 'CNash'. At the top, there's a blue header bar with the text 'SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only'. Below it is a dark purple header bar with the text 'CSC 648-848, Fall 2021, Team 1'. The main content area has a yellow header with a logo 'TwoHelpYou', a 'About US' button, a search bar ('CSC Course Number e.g. 101'), and 'Post', 'Login', and 'Register' buttons. On the left, there's a placeholder image with the text 'COMING SOON'. To the right, the user's name 'CNash' is displayed in large letters, with 'Name: Caleb' below it. Underneath, the section 'Tutor Courses' is shown with two entries: 'Course: CSC 415' with a 'Contact CNash' button, and 'Course: MATH 325' with a 'Contact CNash' button.

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

About US

CSC Course Number e.g. 101

Post

Login

Register

COMING SOON

CNash

Name: Caleb

Tutor Courses

Course: CSC 415 [Contact CNash](#)

Avaliability:

Mon-Fri 9am-5pm

Course: MATH 325 [Contact CNash](#)

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

About Us Page

The screenshot shows a web application interface. At the top, a blue header bar contains the text "SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only". Below this is a dark purple header bar with the text "CSC 648-848, Fall 2021, Team 1". The main content area has a yellow background. On the left, there is a logo icon labeled "TwoHelpYou" and a button labeled "About US". In the center, there is a search bar with the placeholder "CSC Course Number e.g. 101" and a magnifying glass icon. To the right of the search bar are three buttons: "Post", "Login", and "Register". Below the search bar, the text "Software Engineering Class SFSU | Fall, 2021 Section 03 Team 1" is displayed. Underneath this, the text "About Us" is shown. Further down, the text "Team Leader: **Justin Lam**" is listed. Below that, "Github Master / Front End Help: **Aviral Puri**" is listed. Then, "Back End Leader: **Dinesh Thapa**" is listed. Following that, "Back End Developer: **Kurt D Resayo**" is listed. Next, "Front End Leader: **Wesley J Xu**" is listed. Finally, "Front End Developer: **Chung Hei Fong**" is listed.

SFSU Software Engineering Project CSC 648-848, Fall 2021 For Demonstration Only

CSC 648-848, Fall 2021, Team 1

About US

CSC Course Number e.g. 101

Post

Login

Register

Software Engineering Class SFSU | Fall, 2021 Section 03 Team 1

About Us

Team Leader: **Justin Lam**

Github Master / Front End Help: **Aviral Puri**

Back End Leader: **Dinesh Thapa**

Back End Developer: **Kurt D Resayo**

Front End Leader: **Wesley J Xu**

Front End Developer: **Chung Hei Fong**

4. Database Organization

Table: user

Table: user	
Columns:	
user_id	int AI PK
first_name	varchar(64)
last_name	varchar(64)
username	varchar(64)
email	varchar(64)
password	varchar(64)
active	int
created	datetime
photopath	varchar(256)
thumbnail	varchar(256)

user_id	first_name	last_name	username	email	password	active	created	photopath	thumbnail
40	Anish	Gupta	AGupta	AGupta@mail.sfsu.edu	\$2b\$10\$qUf.MKjY9vqeg9zm...	0	2021-12-05 19:43:27	images/upload...	images/thumbnails/AGupta_1638733
41	Calvin	Michele	CMichele	CMichele@mail.sfsu.edu	\$2b\$10\$TRBaWpc8790I9F...	0	2021-12-05 19:46:01	images/upload...	images/thumbnails/CMichele_163873
42	Salome	Beajulieu	SBeajulieu	SBeajulieu@mail.sfsu.edu	\$2b\$10\$Y89LDKkZ9E7cCM...	0	2021-12-05 19:59:53	images/upload...	images/thumbnails/SBeajulieu_16387
43	Theodora	Kennedy	TKennedy	TKennedy@mail.sfsu.edu	\$2b\$10\$2nLgn10riDkUPM1...	0	2021-12-05 20:01:02	images/upload...	images/thumbnails/TKennedy_16387
44	Caleb	Nash	CNash	CNash@mail.sfsu.edu	\$2b\$10\$SnaaxDFxP9uegdB...	0	2021-12-05 20:12:56	images/upload...	images/thumbnails/default_photo.jpg
45	Rick	James	Ricky	rick@mail.sfsu.edu	\$2b\$10\$2ZjcGc2m6Y9mhzP...	0	2021-12-06 20:09:58	images/upload...	images/thumbnails/default_photo.jpg
46	Lisa	Wang	lisa123	lisa@mail.sfsu.edu	\$2b\$10\$RMdZfMZUPhc1b2...	0	2021-12-06 20:13:26	images/upload...	images/thumbnails/default_photo.jpg
47	Anthony	Bell	ABell	ABell@mail.sfsu.edu	\$2b\$10\$fx6UhCdtESPQ6y5...	0	2021-12-06 21:47:45	images/upload...	images/thumbnails/default_photo.jpg
48	Test	User	tuser	tuser@sfsu.edu	\$2b\$10\$6ovQq58fFNT2bPR...	0	2021-12-08 00:26:52	images/upload...	images/thumbnails/tuser_163892321

Table: course

Table: course	
Columns:	
course_id	int AI PK
course_prefix	varchar(45)
course_postfix	int UN

course_id	course_prefix	course_post...
1	CSC	210
2	CSC	600
3	ENG	101
4	ERTH	310
5	BUS	101
6	ECON	101
7	PHYS	200
8	FIN	101
9	ACCT	101
10	AFRS	101
11	A U	101
12	AIS	101
13	ASMT	101
14	ANTH	101
15	ADM	101
16	ARAB	101
17	ART	101
18	ARTH	101
19	AAS	101
20	ASTR	101

Table: post**Table: post****Columns:**

post_id	int AI PK
availability	varchar(256)
authorized	tinyint
user_id	int
course_id	int
post_creation	datetime

post_id	availability	authorized	user_id	course_id	post_creation
51	Mon-Fri 9am-5pm	1	40	139	2021-12-05 20:04:52
52	Mon-Fri 9am-5pm	1	40	140	2021-12-05 20:05:29
53	Mon-Fri 9am-5pm	1	40	141	2021-12-05 20:06:23
54	Mon-Fri 9am-5pm	1	41	142	2021-12-05 20:09:14
55	Mon-Fri 9am-5pm	1	44	1	2021-12-05 20:14:03
56	Mon-Fri 9am-5pm	1	44	143	2021-12-05 20:14:36
57	Mon-Fri 9am-5pm	1	44	144	2021-12-05 20:15:03
58	Mon-Fri 9am-5pm	1	44	145	2021-12-05 20:15:30
59	Mon-Fri 9am-5pm	1	44	146	2021-12-05 20:15:54
60	Mon-Fri 9am-5pm	1	44	147	2021-12-05 20:16:23
61	Mon-Fri 9am-5pm	1	44	148	2021-12-05 20:16:59
62	Mon-Fri 9am-5pm	1	44	149	2021-12-05 20:17:24
63	Mon-Fri 9am-5pm	1	44	150	2021-12-05 20:17:47
64	Mon-Fri 9am-5pm	1	44	151	2021-12-05 20:18:04
65	Mon-Fri 9am-5pm	1	44	152	2021-12-05 20:18:21
66	Mon-fri 4pm-5pm	1	45	153	2021-12-06 20:34:51
67	Mon 3pm	0	47	154	2021-12-06 22:31:03

Table: message**Table: message****Columns:**

message_id	int AI PK
time	datetime
message	longtext
receiver_id	int
sender_id	int
related_course_id	int

message_id	time	message	receiver_id	sender_id	related_course...
123	2021-12-05 19:46:42	Can you help me with This class? My number is...	40	41	2
124	2021-12-06 20:11:14	Hello Cnash.	44	45	152
125	2021-12-06 21:48:28	Can you help me with this class? Please reach...	44	47	152

Table: qualification**Table: qualification****Columns:**

qualification_id	int AI PK
document_path	varchar(256)
user_id	int
post_id	int

qualification...	document_path	user_id	post_id
39	documents/agupta_1638734692470qualification...	40	51
40	documents/agupta_1638734729127qualification...	40	52
41	documents/agupta_1638734783963qualification...	40	53
42	documents/cmichele_1638734954954qualification...	41	54
43	documents/CNash_1638735243985qualification...	44	55
44	documents/CNash_1638735276257qualification...	44	56
45	documents/CNash_1638735303260qualification...	44	57
46	documents/CNash_1638735330656qualification...	44	58
47	documents/CNash_1638735354671qualification...	44	59
48	documents/CNash_1638735383384qualification...	44	60
49	documents/CNash_1638735419761qualification...	44	61

5. Google Analytics

Analytics All accounts > csc648fall2021team1 csc648fall2021team1 Try searching "Insights"

Reports snapshot Realtime Last 28 days Nov 12 - Dec 9, 2021

Realtime

Life cycle

- Acquisition
- Engagement
- Monetization
- Retention

User

- Demographics
- Tech

Users: 12 | **New users**: 11 | **Average engagement time**: 5m 42s | **Total revenue**: \$0.00

14 Nov 21 28 05 Dec

USERS IN LAST 30 MINUTES: 1

USERS PER MINUTE: Bar chart showing user activity over time.

TOP COUNTRIES: United States

View realtime →

WHERE DO YOUR NEW USERS COME FROM?

WHAT ARE YOUR TOP CAMPAIGNS?

Analytics All accounts > csc648fall2021team1 csc648fall2021team1 Try searching "Insights"

Reports snapshot Realtime Last 28 days Nov 12 - Dec 9, 2021

Realtime

Life cycle

- Acquisition
- Engagement
- Monetization
- Retention

User

- Demographics
- Tech

Users by Country

COUNTRY	USERS
United States	11
China	1

User activity over time

14 Nov 21 28 05 Dec

HOW WELL DO YOU RETAIN YOUR USERS?

User activity by cohort
Based on device data only

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5
All Users	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Oct 24 - Oct 30						
Oct 31 - Nov 6						
Nov 7 - Nov 13						
Nov 14 - Nov 20						
Nov 21 - Nov 27						
Nov 28 - Dec 4						

6 weeks ending Dec 4

View retention →

WHICH PAGES AND SCREENS GET THE MOST VIEWS?

Views by Page title and screen class

PAGE TITLE AND SCREEN CLASS	VIEWS
Software Engineering Class SFSU	98
User: AG1	10
User: apple	7
Search: Query is too long	4
All Posts	3
Search: ANTH 12345	3
Search: ARAB 102	3

View pages and screens →

6. Project management

Milestone 1

- 1. Executive Summary (JL)
- 2. Personae and main Use Cases (AP) Oct 5
- 3. List of main data items and entities – data glossary/description (Dt) Oct 7
- 4. Initial list of functional requirements (CF) Oct 9
- 5. List of non-functional requirements (JL) Oct 8
- 6. Competitive analysis (KR) Oct 9
- 7. High-level system architecture and technologies used (JL) Oct 8
- 8. Team and roles (JL) Oct 8
- 9. Checklist (JL) Oct 9

Milestone 1 Revisions

- 2. Personae and main Use Cases (AP) Nov 7
- 3. List of main Data items and entities - data glossary/descriptions (Dt) Nov 7
- 4. Initial list of functional requirements (CF) Nov 7

Milestone 2

- 1. Executive summary (JL)
- 2. List of main data items and entities (Dt) Oct 16
- 3. Functional Requirements - prioritized (KR) Oct 17
- 4. UI Storyboards for each main use case (low-fidelity B&W wire diagrams only) (AP) Oct 27
- 5. High level Architecture, Database Organization summary (Dt) Oct 19
- 6. Identify actual key risks for your project at this time (JL) Nov 7
- 7. Project management (JL)

Milestone 2 revisions

- 2. List of main data items and entities (Dt) Nov 7
- 3. Functional Requirements - prioritized (KR) Nov 7
- 4. UI Storyboards for each main use case (AP) Nov 7
- 5. High level Architecture, Database Organization summary (Dt) Nov 7
- 6. Identify actual key risks for your project at this time (JL) Nov 7

+ Add task

+ Add task

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

The screenshot shows a project management board with the following tasks:

Vertical Prototype	Priority 2	Milestone 3 Frontend	Milestone 3 Backend
UI for the VP test home page	Post view - Frontend	!! Bootstrap Validator	!! Form Security
The VP result page	Post view - Backend	User Page	Display Users
VP test home page and VP Results page	Review for post - Backend	Registration Form page	Register User
The DB	post review form - Frontend	Login Form page	Upload photos
"search" or related button		Post Form Request Page	Thumbnail photos
	+ Add task	Message Form Page	Password Encryption
		Message Page	Login User
		Search Result Page	Sessions
			Logout User
			Send a message
			Display messages
			Post request page (database)

Each task card includes a checkmark icon, a brief description, a due date (Nov 15), and initials (WX, KR, CF, JL, AP, Dt).

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

CSC 648 (i) ☆ ○ Set status

Overview List **Board** Timeline Calendar Dashboard Messages Files

2 tasks completed today

M3 Frontend Revisions	M3 Backend Revisions	Milestone 4	Milestone 5
<ul style="list-style-type: none"> ✓ Documentation JL Dec 3 ✓ Logo AP Dec 3 ✓ Navbar WX Dec 3 ✓ Registration Page AP Dec 3 ✓ Result Cards WX Dec 3 ✓ Message form CF Dec 3 ✓ Dashboard JL Dec 3 ✓ Button, textboxes, and content WX Dec 3 ✓ Forms AP Dec 3 ✓ Cancel Button For all Forms AP Dec 3 ✓ Local store Post and Message content CF Dec 3 ✓ Flash Message WX Dec 3 	<ul style="list-style-type: none"> ✓ Navbar/Search JL Nov 29 ✓ Result Cards Dt Nov 29 ✓ Message form Dt Nov 29 ✓ Dashboard JL Nov 29 ✓ Persistent Page after login/registration Dt Nov 29 ✓ Card Results need to be resorted from highest rated to most recent. JL Dec 3 ✓ 40 character limit validation. KR Dec 3 	<ul style="list-style-type: none"> ✓ 1. Product Summary WX Dec 8 ✓ 2. Usability Test Plan KR Dec 8 ✓ 3. QA Test Plan AP Dec 8 ✓ 4. Code Review AP Dec 8 ✓ 5. Self-check on best practices for security CF Dec 10 ✓ 6. Self-check: Adherence to original Non-functional specs JL Dec 8 	<ul style="list-style-type: none"> ✓ 0) ZOOM Demo WX Saturday ✓ 1) Cover page JL Today ✓ 2) Product Summary WX Today ✓ 3) Milestone Documents - M1 - M4 JL Today ✓ 4) Product Screen Shots CF Today ✓ 5) Database Organization Dt Today ✓ 6) Google analytics stats plot for your WWW site JL Today ✓ 7) Project management: JL Today ✓ 8) Team member self assessment and contributions JL Today
+ Add task	+ Add task	+ Add task	+ Add task

7. Team Member Self Assessment and Contributions

CSC648-848 Fall 2021 Milestone5 Team 1 Team member self assessment and contributions



Justin Wai Lam

Fri 12/10/2021 6:36 PM



To: Wesley J Xu; Aviral Puri; Chung Hei Fong; Dinesh Thapa; Kurt D Resayo

Good Evening Team 1,

I hope you guys are doing well prior to finals, below is my Self-Assessment and Contribution.

- a. My contribution to the delivery of the team project is as follows:
 - 1. Facilitated and managed the deployment of the team's application.
 - 2. Support supervised and reviewed all work prior to submission.
 - 3. Established and enforced checkpoints for timely delivery of milestones.
 - 4. Established and enforced application organization and conventions throughout development.
 - 5. Assisted Backend Lead in the establishment and launch of AWS EC2 Instance Host.
 - 6. Assisted Backend Lead in the establishment and launch of remote MySQL database.
 - 7. Assisted Frontend in overarching theme and template for the application.
 - 8. Facilitated, directed, and produced milestone documentations.
 - 9. Assisted Backend Lead in the development and launch of the Vertical Prototype.
 - 10. Assisted Frontend in the development and design of the Horizontal Prototype.
 - 11. Assisted backend and frontend in the display of users from the database.
 - 12. Developed photo upload functionality for user profiles as photos and thumbnails upon registration.
 - 13. Provide functionality and display of messages from the database to the web interface.
 - 14. Assisted backend in displaying search query results on an independent page.
 - 15. Created content persistency for the search bar when migrating to new pages
 - 16. Created Dashboard for users that are logged in to view messages sent to them and post they have.
 - 17. Assisted the backend in the adjustment in the order of the search result query.
- b. My number of submissions:
 - 1. Commits: 131
- c. A few main challenges were encountered in the team project, mainly revolving around expectations and deliverables. It wasn't easy to manage checkpoints between milestones due to the unfamiliarity of the individuals on the team and attempts to establish a healthy work balance between the development of the team's application and other activities. The unfamiliarity of working as a team and leading one in an educational environment often resulted in all checkpoints being submitted close to the milestone deadlines. Attempts and submitting checkpoints close to the milestone deadline often left some members feeling anxious. This, in turn, results in some members feeling they need to do more of the project to ensure timely completion of the application. As a result, this could have led to animosity amongst team members due to the feeling that not all members were committed to the completion of the project. Additionally, the completion of the checkpoints often too close to the milestone deadline resulted in direct revisions to team members' work with no feedback and is often submitted with minimalist oversight.
- d. Although there were challenges, as previously stated, they are remediable. Understanding that the team's project is not the forefront concern of all team members, it was essential to communicate with the individual members. It is crucial to communicate with the individual members when establishing the assignment of checkpoints in terms of workload and necessary completion time. More frequent personal checkups amongst team members in a one-on-one setting can help alleviate any issues and minimize drama. Establishing earlier checkpoints prior to the milestone deadline can ensure that members have enough time to complete the checkpoint. By having the checkpoints due sooner, proper feedback can be provided to minimize errors in the final product.

Regards,
Team 1 Team Lead Justin Lam

CSC648-848 Fall 2021 Milestone5 Team 1 Team member self assessment and contributions**DT**

Dinesh Thapa

Fri 12/10/2021 10:49 PM



To: Justin Wai Lam; Wesley J Xu; Aviral Puri; Chung Hei Fong; Kurt D Resayo

Hello Team1,

As a backend team lead my contribution and self-assessment are as follows:

Contribution:

1. Developed the backend system of the team's application with Node.js and Express framework and MySQL server
2. Designed the base for the database system of the application and collaborate with team lead in development phase of the database
3. Devised a base for search API to get the results from the server
4. Collaborate with team lead to develop and launch vertical prototype
5. Created API for sending message to the user, registering users as well as log in and log out function
6. Implemented helper function to set a color code for printing success and error messages in the backend system
7. Implemented express session to store the user data between HTTP requests
8. Implemented bcrypt library to hash password and store encrypted password in the database
9. Assigned task to the backend team member to ensure timely delivery of the milestone

No. of commits: 33

Self-Assessment

- a. The big challenges that I faced in this project was the implementation of message feature in our application and to display message form page after routing a page for logged out user to the login page with filled data. Personally, the application felt heavier on the backend side and frontend members could have done better with handling data in the frontend which would have made backend job convenient. Backend team member seems to have limited skills and knowledge of backend system, but I respect the contribution, effort, and willingness to learn.
- b. Based on what I've learned in this class, next time which will probably in my career I can improve my skills in building backend system, work efficiently in team setting and I will improve my communication skills and try to be more engaged. Even though I like doing frontend system of the application, circumstances put me in the position of backend lead in this application but I'm happy that I learned so much things in this given time and collaborate with wonderful team.

Regards,
Dinesh Thapa

CSC648-848 Fall 2021 Milestone5 Team 1 Team member self assessment and contributions KR

Kurt D Resayo

Sun 12/12/2021 8:04 PM



To: Dinesh Thapa; Justin Wai Lam; Wesley J Xu; Aviral Puri; Chung Hei Fong

Hello Team1,

Written below are my contributions and self-assessment:

Contribution:

1. Created a skeleton login and registration page for database testing
2. Added a searchResults page for results to populate a new page instead of on the main page
3. Created client side and server side validation for email registration.
4. Added in code to stop XSS and SQL injection attacks
5. Added a 40 character limit for the search bar
6. Displayed cards by most recent post
7. Assisted with the back end team lead with providing info on starting up AWS EC2

Number of commits: 8

Self-Assessment:

- a. The big challenges that I have faced through this project was my limited knowledge of backend development. At the beginning it has been noticed that we're bit of a front-end heavy, but in order to ensure work was divided evenly someone had to be part of the backend development, which was me. The only memory I have of doing backend development was for CSC317, which was a few semesters ago, and even then it was kind of confusing. I did my best to learn backend development in Javascript along the way while also implementing functions in the website.
- b. From what I have learned in this class and from what I have experienced in this project it has helped me gain experience in working in a professional (well, simulated) environment in which I can use in future jobs. I did my best and worked hard in helping with the backend development and learned new topics in it. Overall, this has been a knowledgeable experience and I am glad to have worked with a great team.

Regards,

Kurt Resayo

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

CSC648-848 Fall 2021 Milestone5 Team 1 Team member self assessment and contributions



Good Evening Team 1, I hope you guys are doing well prior to finals, below is my Self-Assessment and Contribution. M...

Fri 12/10/2021 6:36 PM



See 3 more messages



Chung Hei Fong

Hello Team 1, Below are my contributions and self-assessment: Contributions: Created and apply CSS for User profile ...

Tue 12/14/2021 8:17 PM



Wesley J Xu

Wed 12/15/2021 8:48 PM

To: Chung Hei Fong; Aviral Puri; Kurt D Resayo; Dinesh Thapa; Justin Wai Lam



Hello, Team 1

As front-end team lead my contributions and self-assessment are:

Contributions:

1. Frontend lead for Team 1
2. Coordinate with team lead and fellow front end members in overall design choices.
3. Worked on about us page
4. Worked on the landing page which eventually became homepage
5. Added header detailing for demonstration purposes only
6. Adjusted CSS styling conventions for team to use
7. Improved UX and UI designs across the different pages
8. Fixed minor details regarding CSS styling or misplaced text
9. Improved upon login skeleton form page
10. Improved upon registration skeleton form page

Number of commits: 18

Self-assessment:

- a. The main challenges I encountered in this team project was that I had to step up to be our groups front end team lead. I do not have a lot of experience being a lead so this was a huge step for me. I failed to assign tasks and set internal deadlines beginning of the semester. I slowly realized that it is better for me and us as a team to step up and do more leader like roles like dividing work up and setting due dates.
- b. Taking this class has been very beneficial to me professionally and socially. I was put into a working environment and was assigned a sub lead. I had to step up and do what was assigned to me. I was also able to learn a lot about set up better UX designs and UI designs that adhere to help the users instead of hindering the users like adding more English to describe what something does. Creating a working website was difficult in the socially distant environment with less face-to-face interaction with the group, which has hindered us a good amount. Overall this was a great experience that will help me out in the future whether it be applying for a job or creating self-projects.

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

CSC648-848 Fall 2021 Milestone5 Team 1 Team member self assessment and contributions



Justin Wai Lam

Good Evening Team 1, I hope you guys are doing well prior to finals, below is my Self-Assessment and Contribution. My co...

Fri 12/10/2021 6:36 PM



See 2 more messages



Aviral Puri

Hi Team, Below is my self assessment for this project. a) Contributions Personae and Use cases Created Personae based o...

Tue 12/14/2021 5:27 PM



Chung Hei Fong

Tue 12/14/2021 8:17 PM

To: Aviral Puri; Kurt D Resayo; Dinesh Thapa; Justin Wai Lam; Wesley J Xu

Hello Team 1,

Below are my contributions and self-assessment:

Contributions:

1. Created and apply CSS for User profile page
2. Created and apply CSS for Message Form Page
3. Created the about us page
4. Created local storage in client side for saving and put back the user input for both message form page and Tutor Application page
5. Conducted Self check for security

Number of commits: 30

Self-assessment:

- a. The main challenges I encountered in this team project are I spend too much time to do searching for useful material or information that can help me to finish my task. Because I was not familiar with web page development, I found that I needed to spend more time researching for my tasks than doing actual coding for the project. Therefore, I always found myself finishing my tasks near the deadline and not being able to make them more visually appealing.
- b. From what I learned from this class and project, next time before I apply for a job, and will start to do some search on what the job will need to do so I will be more familiar with what I will need to do and didn't have to spend too much time for search material. Therefore, I can do actual coding during development time.

...

Final Project for SW Engineering CSC 648-848 Fall 2021 Team 1

CSC648-848 Fall 2021 Milestone5 Team 1 Team member self assessment and contributions



Aviral Puri

Tue 12/14/2021 5:27 PM



To: Kurt D Resayo; Dinesh Thapa; Justin Wai Lam; Wesley J Xu; Chung Hei Fong

Hi Team,

Below is my self assessment for this project.

a) Contributions

1. Personae and Use cases
 - Created Personae based on demographic and market data.
 - Created Use Cases used to identify functional requirements of the product.
2. UI storyboards and overall high level website design
 - Created wire diagrams and UI storyboards for the Use Cases which were used as a basis for the overarching front-end design of the website.
3. Post Form Page
 - Created front-end Post functionality and form page for Tutor Posts.
 - Created an advanced scheduler using better UX principles to add more clarity and functionality to Post form.
4. Form input validation and error relay to user
 - Created validation functions for all forms that notify the user of an invalid input
 - Improved existing onsubmit validation functions and added logic for edge cases
5. Website Logo
 - Created a custom website logo
6. QA Testing
 - Created formal documentation for QA Test Plan and conducted QA Testing
 - Conducted regular integration and feature testing with Team Lead.
7. Code Review
 - Conducted code review of Post Feature and ensured the code followed conventions and readability standards.
8. Github Management and enforcement of github conventions and proper usage
 - Set and enforced github guidelines, conventions and github rules to restrict main and dev access to authorized team members
 - Set Setup and maintained main and dev branches and merging with Team Lead.

b) Number of commits: 38

c) Due to the remote environment, there was a lack of communication between the front-end team which led to confusion about requirements and instructions. This resulted in tasks being assigned late which in turn negatively impacted timely delivery of features that could have been completed to a more visually appealing standard.

d) From this project, I learned that oftentimes the integration of a new feature into a full stack application takes almost as much time as its development. So for next time I will take into account the time a feature will spend in testing and bug fixing before it is ready for release. It is also important to communicate with everyone in the team and to address any minor concerns early, such as which tasks should be delegated out to be completed in a timely manner.

Thanks and regards,

Aviral Puri

SID - 920684944