

Milestone 5

Final Project for SW Engineering Class CSC

648-848 Spring 2022

Team 6

Application Name: “GitJob”

Team: Allison (Team Lead), TJ (Github Master),

Joshua (Front End Lead), Sedric (Front End Team Member), Thien (Back End Lead)

Email: aadad@mail.sfsu.edu

URL: <http://13.52.76.208>

Date: 05/10/2022

2) Product summary:

Name of Product: GitJob

Our product is aimed to help SFSU students find job/career opportunities. Students can search and filter through jobs posted by employers, apply to jobs externally, and even bookmark jobs that they are interested in. Employers can post jobs within the 9 tech fields. Employers and students both must register for an account and log-in to save and post jobs, but users who are not logged in are still able to view posted jobs, but cannot save them. GitJob helps companies find the perfect candidate and students find their perfect job!

URL: <http://13.52.76.208>

List of Finalized Functional Requirements:

1. Employers (companies, recruiters) shall be able to post job listings within these 9 fields: AI & ML, RPA, Edge Computing, Quantum Computing, VR & AR, Blockchain, IoT, 5G, and Cyber Security. The jobs will be stored in the database.
2. Users shall be able to search and filter through job posts, through filters such as location, field (tech area), job position/title, skills.
3. Employers shall be able to post (and delete) job listings that must contain a job title, description, location, salary, and skills.
4. Admin account shall be able to delete any job posts
5. Registration form: required for users to register. Contains name, email and password. Account information will be stored in the database.

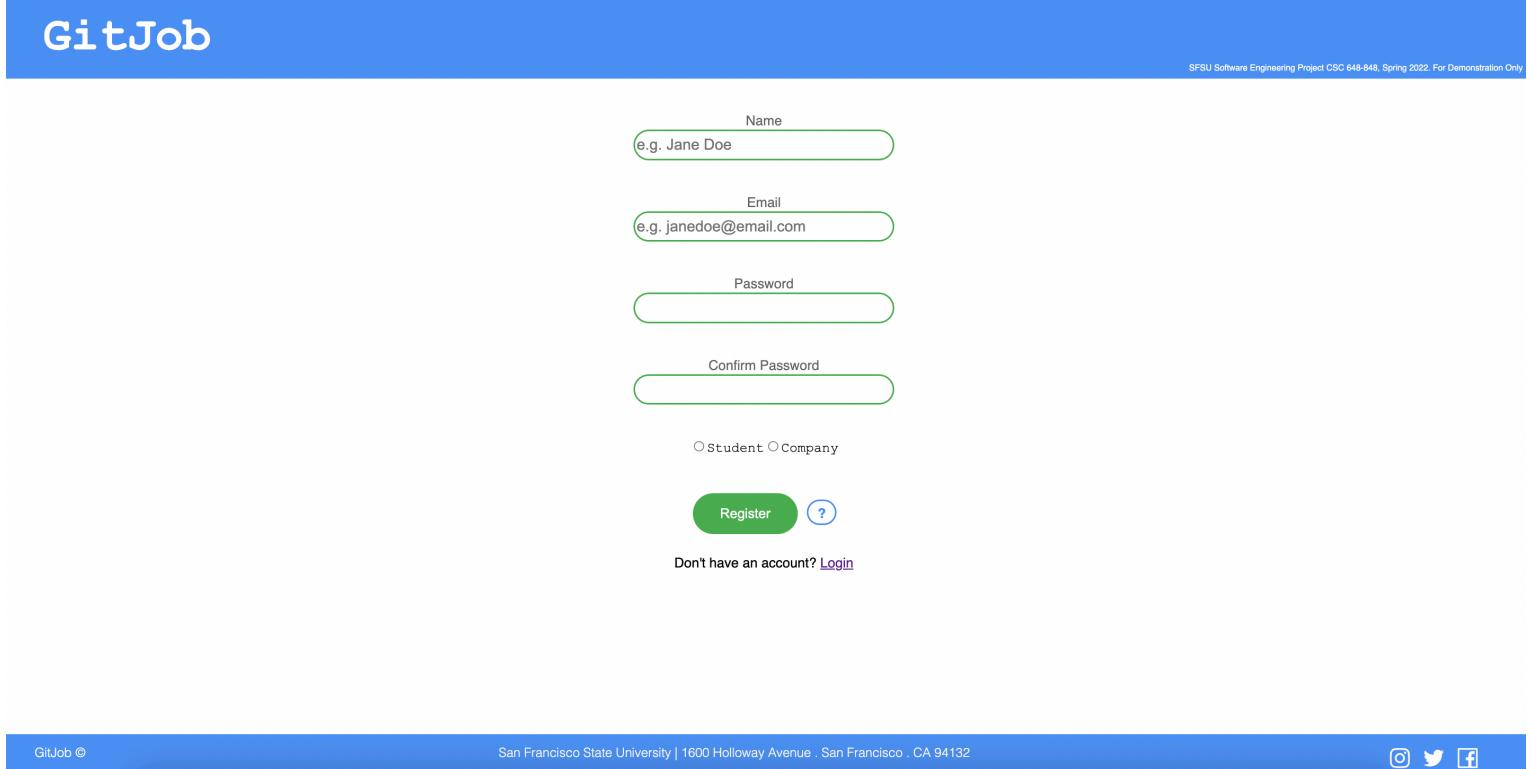
6. Users will have a “Saved Jobs” folder that allows them to view the jobs they have bookmarked/saved from searching.
7. Users shall be able to explore the site without creating an account, but must create an account if they want to apply to jobs and save jobs.
8. Once logged in users shall have sections on the navigation bar for jobs, profile, careers, and post jobs (only if they are employers).
9. The application has a section specifically for searching through job posts with filters, which is the Home tab. Accessible to employers and students.
10. Admins and Employer/Company shall be able to delete a post after it is posted.
- 11.

3) Milestone documents:

<https://github.com/CSC-648-SFSU/csc648-02-sp22-team06/tree/master/Milestones/M5>

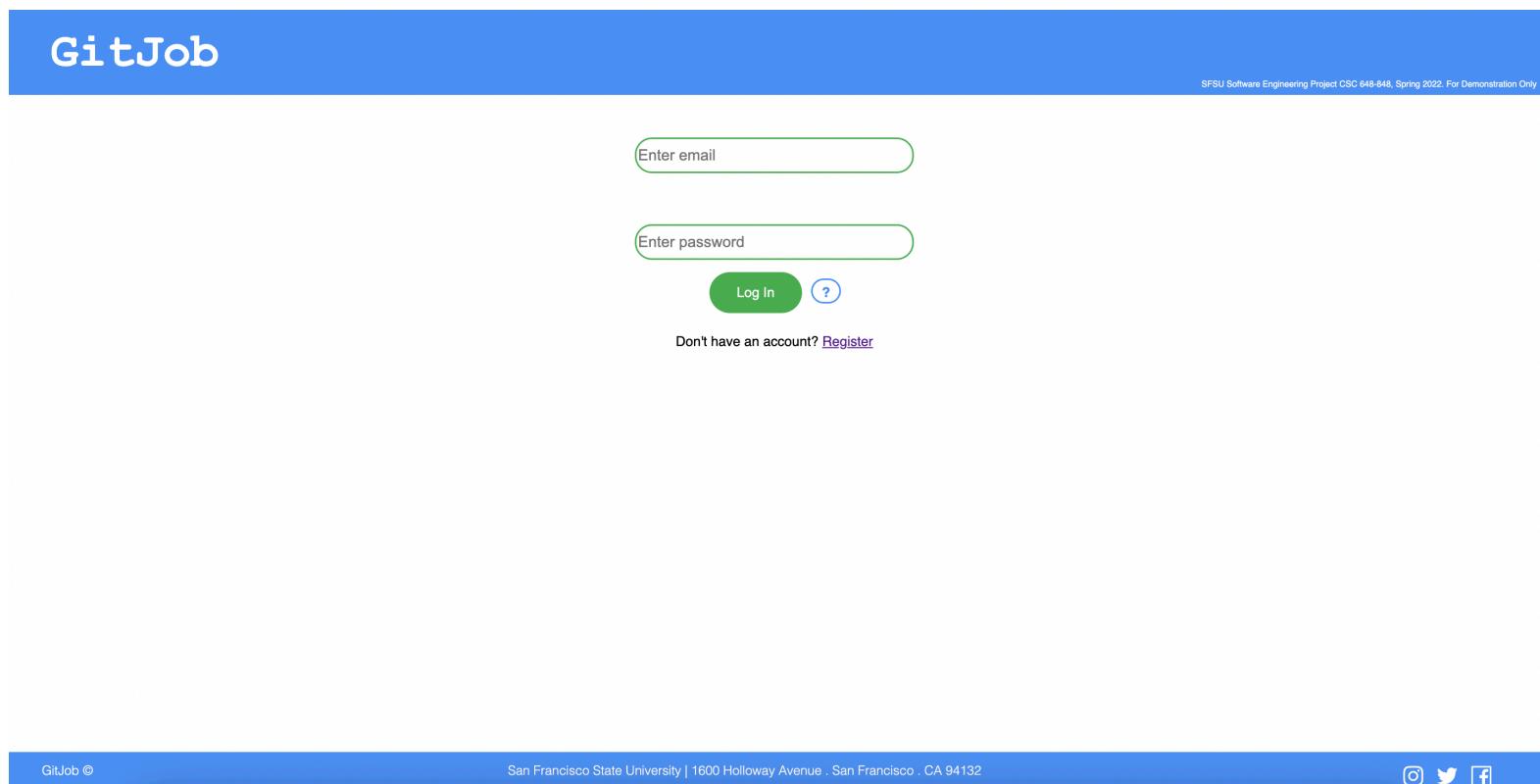
4) Screen Shots of actual final product as shown in the demo, one per page:

Register:



The screenshot shows the GitJob registration page. At the top, there's a blue header bar with the "GitJob" logo. Below it, a sub-header reads "SFSU Software Engineering Project CSC 648-848, Spring 2022. For Demonstration Only". The main form area has four input fields: "Name" (placeholder: e.g. Jane Doe), "Email" (placeholder: e.g. janedoe@email.com), "Password", and "Confirm Password". Below these is a radio button group for "Student" and "Company". A green "Register" button is at the bottom left, accompanied by a question mark icon. To its right, a link says "Don't have an account? [Login](#)". The footer contains the "GitJob" logo, the university address "San Francisco State University | 1600 Holloway Avenue . San Francisco . CA 94132", and social media icons for Instagram, Twitter, and Facebook.

Login:



The screenshot shows the GitJob login page. It features a blue header bar with the "GitJob" logo and a sub-header indicating it's a demonstration version. The main form has two input fields: "Enter email" and "Enter password". Below them is a green "Log In" button with a question mark icon. A link "Don't have an account? [Register](#)" is located just below the password field. The footer includes the "GitJob" logo, the university address "San Francisco State University | 1600 Holloway Avenue . San Francisco . CA 94132", and social media icons for Instagram, Twitter, and Facebook.

Student Home:

The screenshot shows the GitJob application's student home interface. On the left, a blue sidebar contains navigation links: Home, Careers, My Jobs, and Profile, along with a Logout button. The main content area features two job listings in a grid. Each listing includes a profile picture placeholder, the job title, company, location, date posted, job field, skills, salary, and a three-dot menu icon.

Job Title	Company	Location	Date	Job Field	Skills	Salary
NLP Analyst	Orange Inc.	Seattle, WA	2022-03-11 00:00:00	Artificial Intelligence and Machine Learning	Python	\$150,000
Developer	Apple Co.	New York, NY	'2022-03-11 00:00:00'	Robotic Process Automation	Java	\$120,000

Student Careers:

The screenshot shows the GitJob application's student careers page. The left sidebar includes Home, Careers, My Jobs, and Profile, with a Logout button. The main area displays six career-related cards arranged in a grid. Each card has a question mark icon in the top right corner and a title in bold capital letters.

Career Category
Machine Learning
Robotics and Process Automation
Edge Computing
Quantum Computing
Virtual and Augmented Reality
Blockchain

Student Bookmarks:

GitJob

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The screenshot shows the GitJob application interface. On the left is a vertical sidebar with icons for Home, Careers, My Jobs, and Profile, and a Logout button. The main area displays two job bookmarks in a grid. The first bookmark is for an 'NLP Analyst' position at Orange Inc. in Seattle, WA, posted on 2022-03-11. It lists the job field as Artificial Intelligence and Machine Learning, skills as Python, and salary as \$150,000. The second bookmark is for a 'Data Engineer' position at Orange Inc. in Palo Alto, CA, posted on 2022-05-10. It lists the job field as Quantum Computing, skills as Python, and salary as \$200-220k. Each bookmark has a 'Delete' button in the top right corner.

NLP Analyst
Orange Inc. • Seattle, WA
2022-03-11 00:00:00
Job Field: Artificial Intelligence and Machine Learning
Job Skills: Python
Salary: \$150,000

Data Engineer
Orange Inc. • Palo Alto, CA
2022-05-10 09:31:18
Job Field: Quantum Computing
Job Skills: Python
Salary: \$200-220k

Student Profile:

GitJob

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The screenshot shows the GitJob application interface. On the left is a vertical sidebar with icons for Home, Careers, My Jobs, and Profile, and a Logout button. The main area displays a student profile card. The profile information includes the name 'Jane Doe', account type 'Student', and email 'janedoe@gmail.com'. The profile card has a blue border.

Name: Jane Doe
Account Type: Student
Email: janedoe@gmail.com

Company Home Page:

GitJob

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- Home
- Post a Job
- Delete a Job
- Profile
- Logout

Search | Select field | Select location | Select skill | Search | ?

NLP Analyst
Orange Inc. • Seattle, WA
2022-03-11 00:00:00

Job Field: Artificial Intelligence and Machine Learning
Job Skills: Python
Salary: \$150,000

...

Developer
Apple Co. • New York, NY
'2022-03-11 00:00:00'

Job Field: Robotic Process Automation
Job Skills: Java
Salary: \$120,000

...

Company Post a Job Page:

GitJob

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- Home
- Post a Job
- Delete a Job
- Profile
- Logout

Job Title	Salary	Job Description
Enter position title	e.g. 100K-200K	Enter detailed job description

Company Logo	Job Field	Location	Skills
Choose File No file chosen	Select field	Select location	Select skill
<input type="button" value="Submit"/>	<input type="button" value="?"/>		

Company Posted Jobs Page:

GitJob

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- Home
- Post a Job
- My Posted Jobs
- Profile

Logout

Job Name: Data Engineer
Job Field: Quantum Computing
Date Posted: 2022-05-10 09:31:18
Job Location: Palo Alto, CA
Job Salary: 200-220k
Job Skills: Python

Delete

Admin Page (to delete posts):

GitJob

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- Home
- Admin

Logout

Add Notification

Job Name: NLP Analyst
Job Field: AI and ML
Date Posted: 2022-03-11 00:00:00
Job Location: Seattle, WA
Job Salary: 150,000
Job Skills: Python

Delete

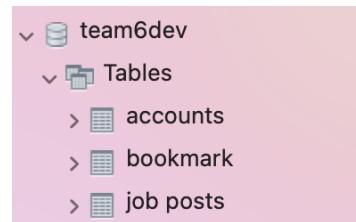
Job Name: Developer
Job Field: Robotic Process Automation
Date Posted: 2022-03-11 00:00:00
Job Location: New York, NY
Job Salary: 120,000
Job Skills: Java

Delete

Job Name: Software Engineer
Job Field: Edge Computing
Date Posted: 2022-03-11 00:00:00
Job Location: Palo Alto, CA

Delete

5) Screen shots of key DB tables (1-2 pages):



Account Table (includes both company and student accounts differentiated by types)

100% ◁ 33:1

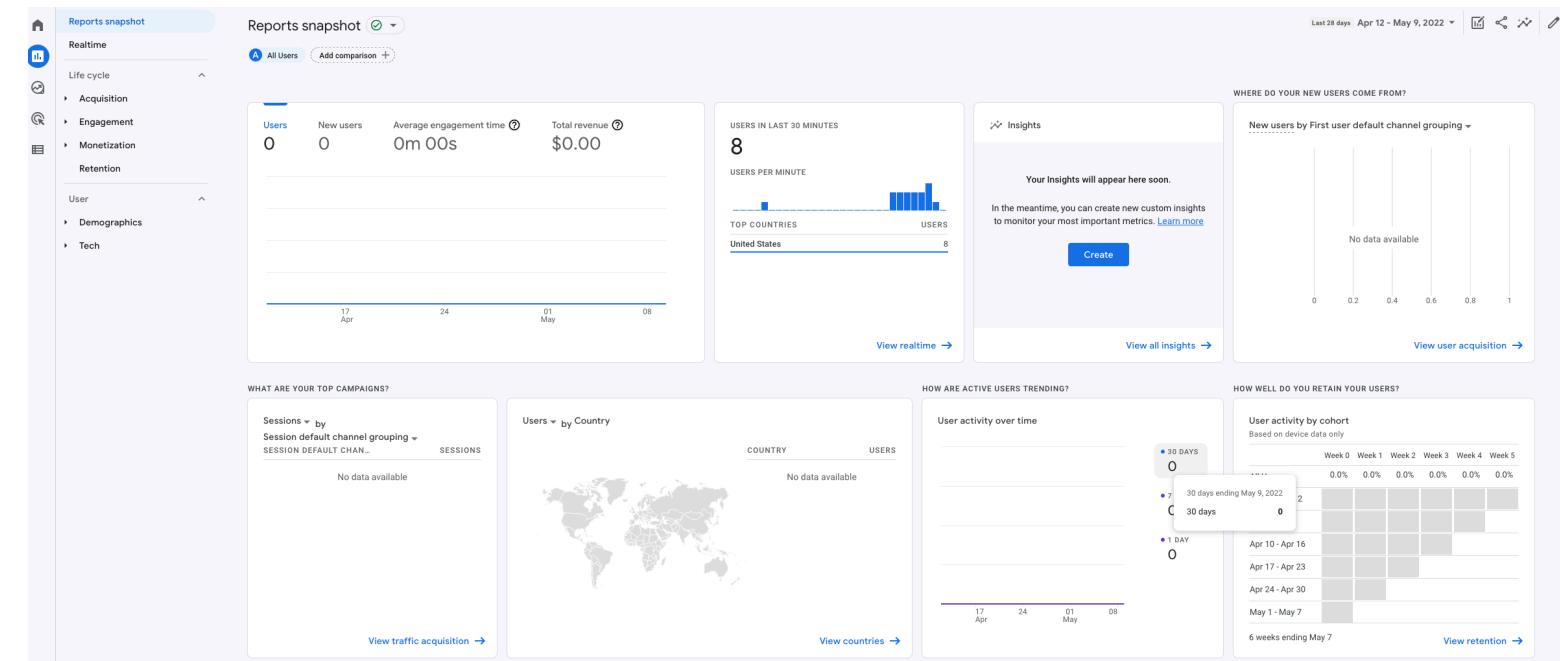
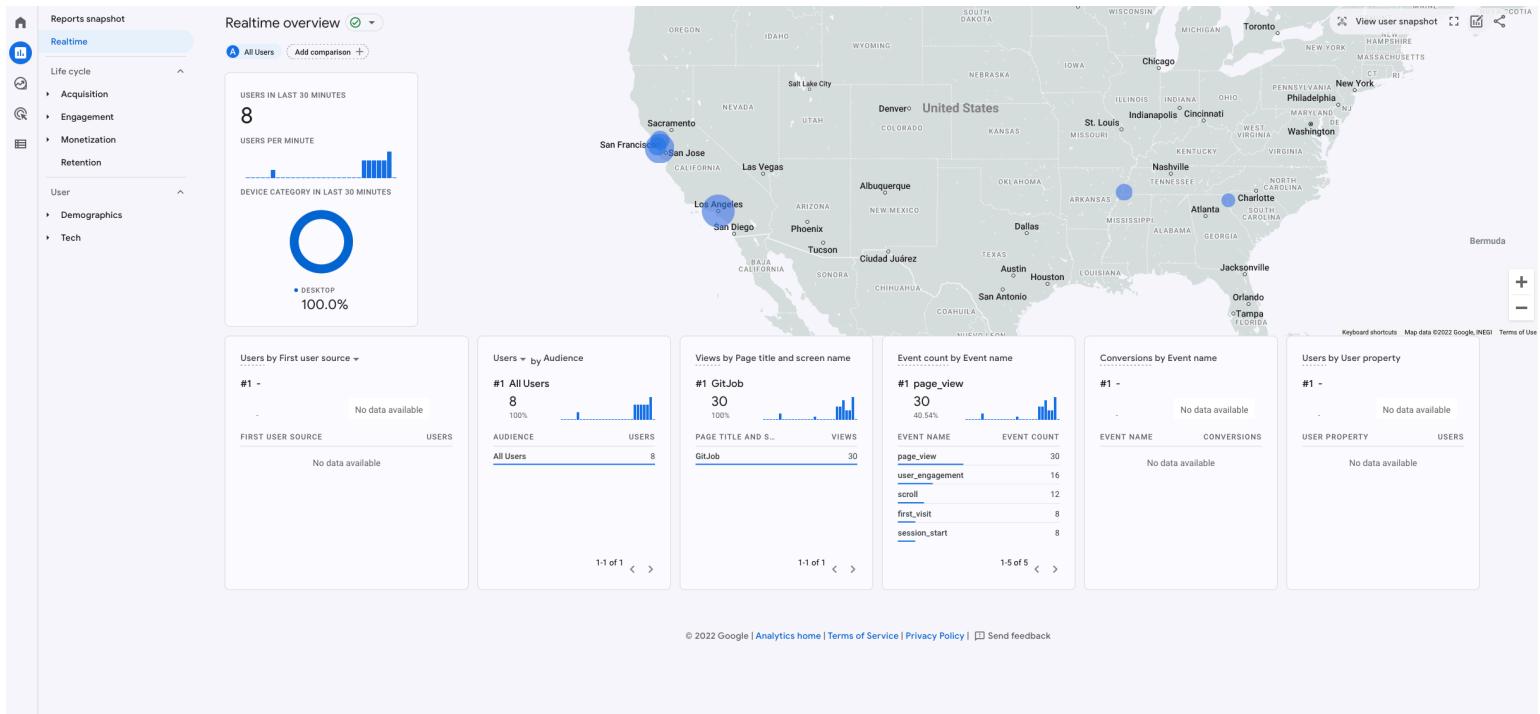
Result Grid Filter Rows: Search Export/Import:

	aid	email	type	name	password
▶	1	admin@gmail.com	Admin	admin	\$2b\$10\$HXLbzl7KsSqXaVCQD5/0ueZt0ks4kX...
	13	test@gmail.com	student	NULL	\$2b\$10\$TyVNthUTiXJ43P8/W10wquyCGkDBo...
	20	Alli	Student	Alli	\$2b\$10\$IGFexPZH3uy/z0/MXFvQefzZ.J36Dcl...
	22	Allison Adad	Student	Allison Adad	\$2b\$10\$inYqrmxeUILgHiPAM7v5JOe.j.aiU3YIm...
	24	a	Student	a	\$2b\$10\$iopZmWveVtiYR3ZvAzuPqr14MifgnF...
	25	aa	Company	aa	\$2b\$10\$ufgX3ESoX/DeRoj0nArDbu98dmMR6...
	27	Person	Student	Person	\$2b\$10\$YUac/IHL5sT5LvYAyPVnxuPJo1JjyTD...
	29	b	Company	b	\$2b\$10\$zcv7o2f3gKArKai6fk7h/efsSC392JWjgl...
	31	joshtest@gmail.com	Student	Josh	\$2b\$10\$MZVqlQP6eo6vd9VbhBr7feke8vOeQJl...
	33	joshtest3@gmail.com	Company	123	\$2b\$10\$N/.2kejr92A4eC9nW8HXie0qbBfBzOIEy...
	34	bob@gmail.com	Student	bob	\$2b\$10\$NHN.bQWTcUDUNeF/s.oU/OaA.yRXI....
	35	adadallison@gmail....	Student	Allison Adad	\$2b\$10\$0pEJXEmk5PAAJkB5Jvp6YOrW6ldDS...
	36	tjtest@gmail.com	Company	tjtest	\$2b\$10\$9M1GQc1OzOqHMpqfWrVtvONHS6P...
	37	joshtest34@gmail.c...	Student	Student Jay	\$2b\$10\$NzwEno3KgRVgVpVz5pAyH.f7mFNrc...
	38	sedric@gmail.com	Company	Sedric!	\$2b\$10\$1Lx2QmmmtBSmvAodxBmHbtCd/rp04...
	39	c	Student	c	\$2b\$10\$SgVgDsgmzRzZGc7r1B08lqp8A...
	40	orangeinc@gmail.com	Company	Orange Inc.	\$2b\$10\$ib7UdLlgfxYyLjLVhacGAu7xXY6yH8G...
	41	janedoe@gmail.com	Student	Jane Doe	\$2b\$10\$Qy74xEj1WdyCAwBwWMBBHOCPlcH...
	NULL	NULL	NULL	NULL	NULL

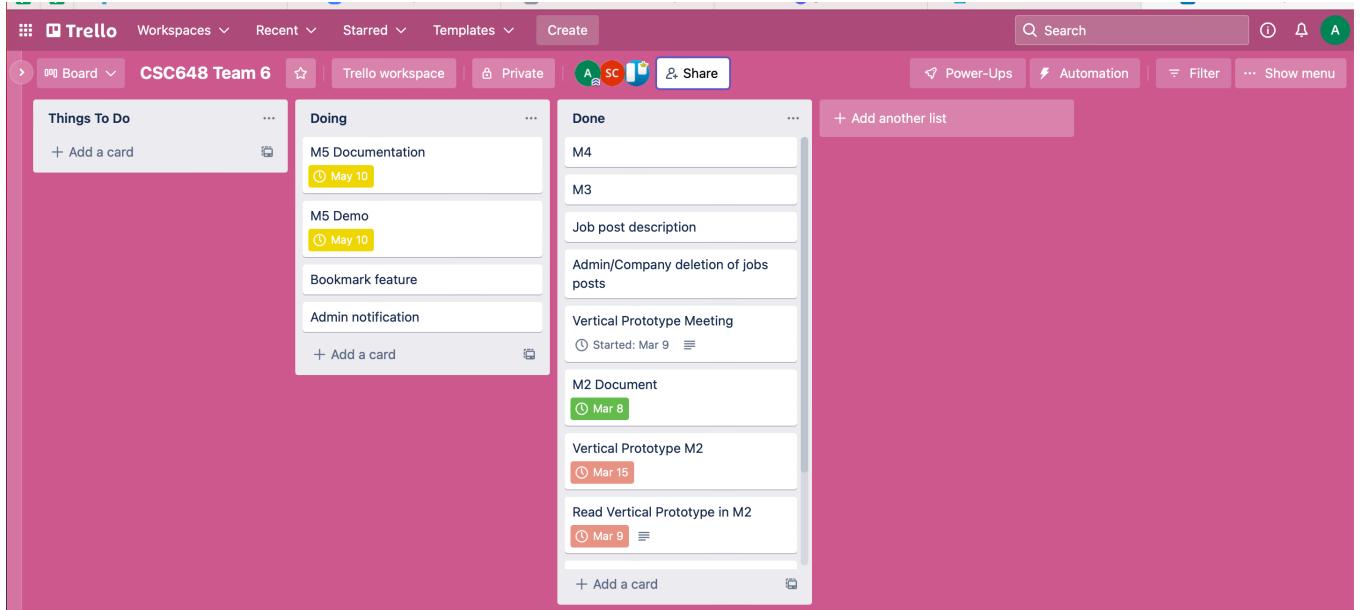
Bookmark Table (jobs saved/bookmarked by students):

Job Posts table (jobs posted to search results page):

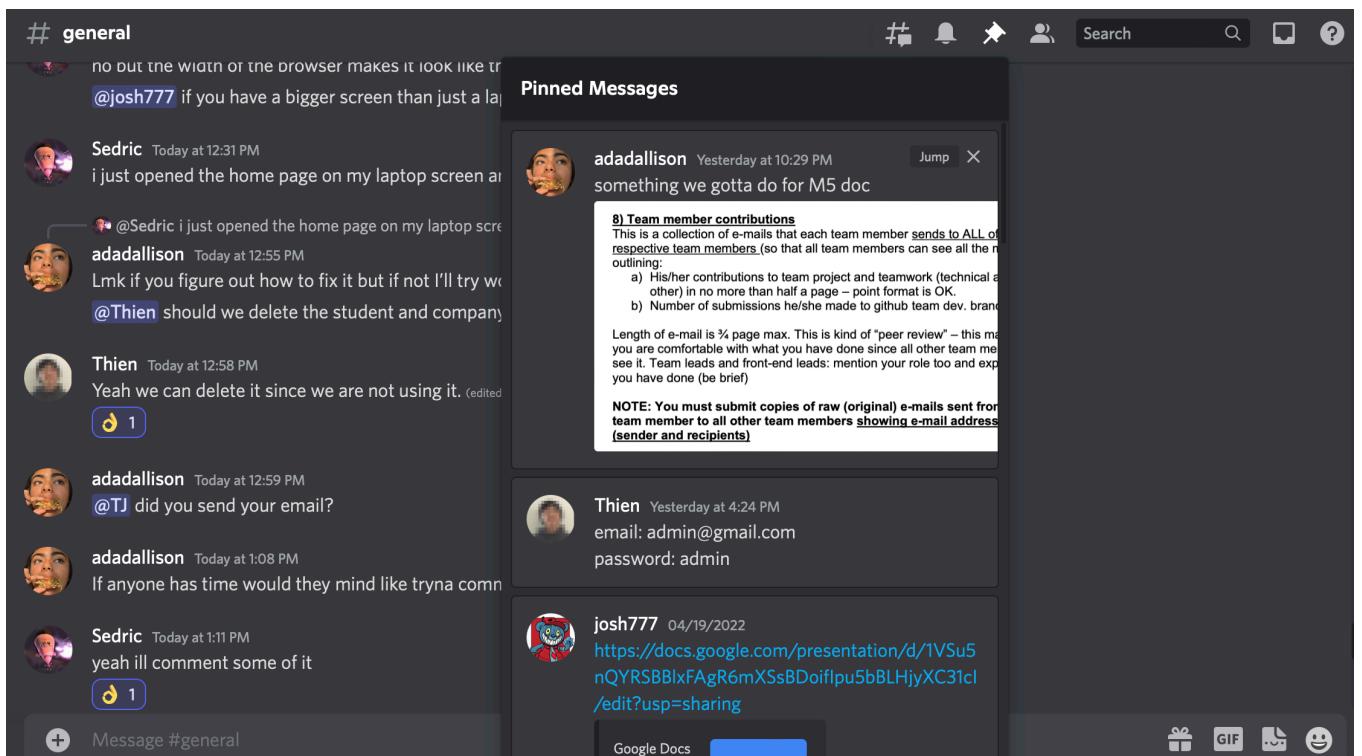
6) Google analytics plot for your WWW site (1 page)



7) Screen shot(s) of your task management system (like Trello) showing a snapshot of your project management



Discord was used to communicate and specify priorities and deadlines:



8) Team member contributions

 Allison Victoria Adad
Tue 5/10/2022 11:23 AM

To: Thien Pham; Sedric Thomas Conneally; Tj Layug; Joshua Martin Alfaro



Allison Adad

Tasks:

- Assigned tasks to team members for front-end and back-end
- Prioritized tasks and features that needed to be implemented
- Reviewed front-end implementations and edited/updated commits
- Popup feature on search results page
- Contributed to UI and website design
- Delegated tasks to team members
- Contributed to the logic of logging in with front-end team
- Designed the database organization chart in M2, back-end team refined it
- Contributed to creation of prototypes on figma
- Put together documentation for each milestone and peer-reviewed contributions from team members
- Edited the search results page UI and designed the way the jobs would be displayed
- Created and designed the profile page
- Edited the appearance of form.js
- Created and designed careers.js
- Kept track of progress for front-end and back-end

Repo Count: 160

 Sedric Thomas Conneally
Tue 5/10/2022 12:35 AM

To: Thien Pham; Joshua Martin Alfaro; Tj Layug; Allison Victoria Adad

a. My contributions are as follows:

- Created the front-end prototypes and helped design the basic layout of the page
- Created Jobs page, which later got consolidated with the search results page
- Got the login redirect working
- Created register page
- Helped create dynamic sidebar
- Figured out how to import maps
- Helped create search bar filters
- Set up analytics
- Cleaned up code

b. The number of commits I made on the main branch was 19

From: Thien Pham <tpham29@mail.sfsu.edu>

Date: Monday, May 9, 2022 at 23:37

To: Joshua Martin Alfaro <jalfaro3@mail.sfsu.edu>, Sedric Thomas Conneally <sconneally@mail.sfsu.edu>, Tj Layug <tlayug@mail.sfsu.edu>, Allison Victoria Adad <aadad@mail.sfsu.edu>

Subject: Re: Team 6 - Member Contributions

Thien Pham

Tasks:

- Connected the database and expressed, and all the queries for the all the routes
- Worked on the search function of the search bar for the prototype.
- Worked on the routes to communicate with the server.
- Worked on connecting the client with the server and its route.
- Implemented different maps to show the post base on the address.
- Created different account types for different accounts.
- Authenticating user requests based on the JWT they have.
- Worked on delete functions for different accounts.

Repo Commits: 60

From: Joshua Martin Alfaro <jalfaro3@mail.sfsu.edu>
Sent: Monday, May 9, 2022 11:24 PM
To: Sedric Thomas Conneally <sconneally@mail.sfsu.edu>; Thien Pham <tpham29@mail.sfsu.edu>; Tj Layug <tlayug@mail.sfsu.edu>; Allison Victoria Adad <aadad@mail.sfsu.edu>
Subject: Team 6 - Member Contributions

Joshua Alfaro

Tasks:

- Created the rough draft/format of our front end design (3/10)
- Worked on the profile and forum(we did not implement this to our final design)
- Forum Fixed (issues with forum)
- Fixed some of the career's code, dealing with all the jobs description etc.
- Created the Post a job form (front end)
- Created the post a resume form (front end, back end is not linked to it /error in our design)
- Created drop down button for post a job form
- Updated the Post a job form css
- Added Location and Skills Filter to Post a Job form
- Fixed Careers with the hover animation to display properly
- Implemented Notification Design (only works when you click the button/ did not get push notification to work)
- Put notification function in admin page
- Created Footer
- Created green button

Repo: 23



Tj Layug

Tue 5/10/2022 2:20 PM

To: Allison Victoria Adad; Sedric Thomas Conneally; Joshua Martin Alfaro; Thien Pham

TJ Layug

Tasks:

- Managed GitHub repository files, branches, and fixed merge conflicts.
- Set up and manage AWS webserver using NGINX and then changed to Express.
- Worked on connecting client to server in backend.
- MySQL Database organization.
- Worked on server queries to the database.
- Worked on job posting form.
- Worked on deleting posts functions.
- Worked on database blobs.

Repo commits: 13

9) Post analysis – lessons learned (one-page max):

This project was a great introductory experience to what it is like to work as a software engineer on a team, with the goal of delivering a project. We were able to apply the lessons taught in class about software methodologies, SE life cycle, and user-centered design in order to complete our product. We learned a lot from each other and the team dynamic was productive and we created a growing environment. The back-end and front-end team helped one another, and were flexible and versatile, which made working with one another delightful. An issue we tackled early on was poor prioritization; we were focusing too much on the UI and not the non-functional requirements. We fixed this issue after M3, and we were able to implement the most important features. Overtime we were able to distinguish our priorities, and this is what helped us deliver a product that works efficiently. The other issue we had was not being able to accomplish the Job Notification feature; I believe this was a result of no focusing on the most important non-functional features in the beginning of the project. We were able to deliver our other priorities, however, and more. Lessons learned were the importance of communication in a team, distinguishing priorities/requirements early on, and the ease of working with responsible teammates. We also learned many new technical lessons from one another since each of us have different fortés. This project was enjoyable because all of the teammates were willing to learn and has a desire to deliver a product that they would be proud of.

Team Lead Summary:

a.) Main challenges:

- Not prioritizing the main functionalities in the early stages
- Some unrealistic expectations that we later realized we could not deliver
- Focusing too much on the UI in the early stages
- Not having much experience with our software stack, like React and SQL
- Choosing a software stack, and setting up AWS
- Authenticating a login, dynamic sidebar, and notifications were our biggest technical hurdles

b.) Improvements to work on:

- Next time I would outline our final product in more detail in the beginning
- I would prioritize the main features and eliminate the extra/unnecessary ideas earlier on
- Ask the professor more questions about what he is expecting specifically each milestone
- I would look at more examples of similar projects, tutorials, or videos in earlier stages to be able to predict what issues may occur
- I would investigate the stack earlier on to see what issues could come up with our code