

SW Engineering CSC648/848 Spring 2023

SafetyHub

Section: 02

Team: 03

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Milestone 5

05/16/2023

Link to webpage: <https://saferity.quartz.technology/>

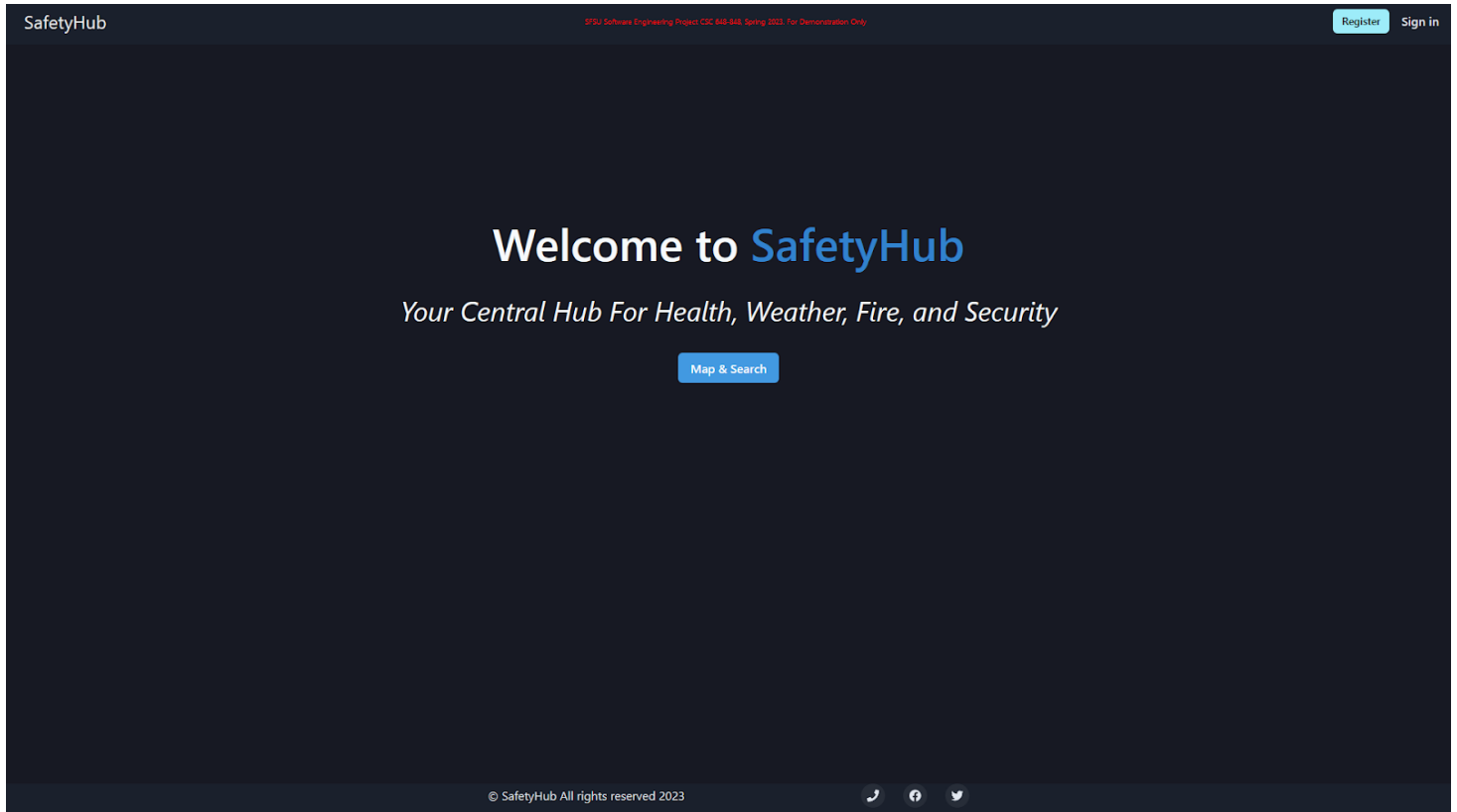
Product Summary:

In recent years, California has seen a rise in all kinds of emergencies, from public health to natural disasters. But at the same time, California has also seen a surge in tech start-ups that shaped technology and how the world operates. California is home to a lot of talent but also all kinds of dangers. We cannot keep ignoring such a dichotomy. Keeping California citizens informed of natural disasters and public health concerns is pivotal to saving lives. Currently, the majority of information that people consume regarding an emergency is shared through social media like TikTok, Facebook, Instagram, and Twitter. These technologies are helpful but are not tailored to spread governmental information fast and accurately. Most information comes from the aftermath of an emergency. We need technology that alerts the public about possible emergencies as soon or even before they happen so the public can take the necessary precautions. We need an app that works alongside governmental institutions to display the most up-to-date and accurate numbers and offers users a good and relatable user experience.

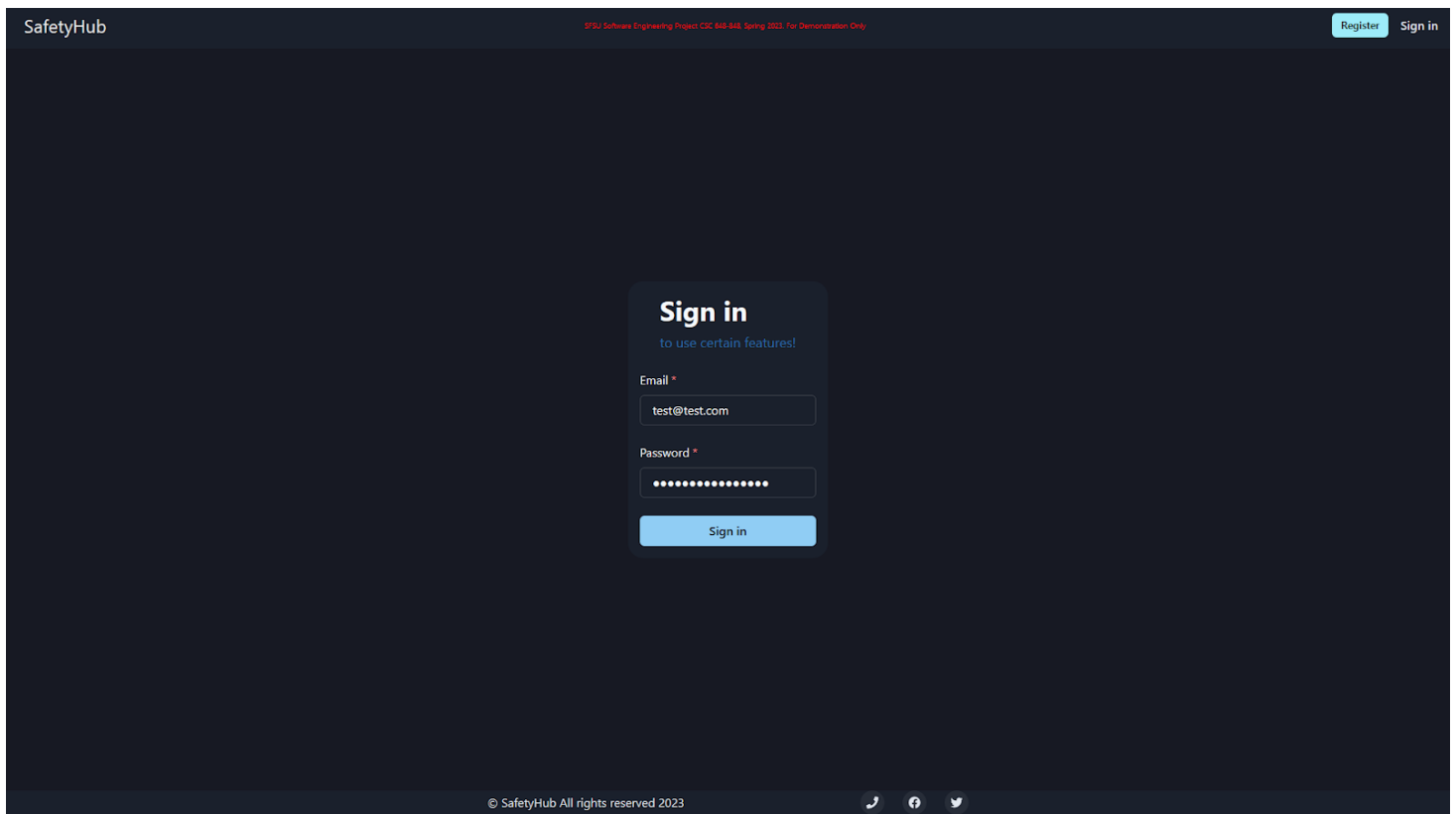
The entire state of California is the addressable market for our app. With a population of over 39 million, a useful app to notify people about emergencies and public health issues is really needed. Our app's significance goes beyond simply saving lives because it has enormous commercial potential. There is a sizable market in California for goods that might assist people in getting ready and staying safe because the state frequently experiences natural catastrophes including wildfires, earthquakes, and floods.

Our team seeks to fill the gap and create an app that benefits California citizens. We are committed to offering the best user experience to the public. We want to create a free-to-use and easy-to-use app that shall keep the public informed about different situations happening around them. We want to offer governmental institutions special access to our app. It is our priority to ensure what we display to the public is the most up-to-date information. Our project seeks to inform the user about different weather emergency levels and infection numbers of COVID-19 in California. Users of our app shall be able to sign-up for notifications that alert them about dangers in their county. We understand the public is drawn to visuals. Therefore we shall display maps for better reference. We want to give the user the freedom to search for the status of different counties within California. We are open to changing and or adding features to our app based on user feedback. All of the features mentioned shall be executed with the user in mind, and our team shall extract all complexity away from the user, so our user base is as large as it can be.

Screenshots of Final Product: Product Screenshots



Sign In/ Register Page:



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SafetyHub

Type Search

County Search...

Weather

Security

Health

Fire

Content Search

Content Search...

Search

Result

San Francisco Fire

A small fire has broken out in San Francisco.

Department: San Francisco 2

Cat on tree

please help cat

Department: Fresno 0

San Francisco Storm

A storm is approaching San Francisco.

Department: LosAngeles 3

Fresno Health Advisory

Air quality warning for Fresno County

SFSU Software Engineering Project CSC 648-848, Spring 2023, For Demonstration Only

Map Logout About us Alerts

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Keyboard shortcuts Map data ©2023 Google, INEGI Terms of Use

Screenshots of Key DB Tables:

- Alerts Tables

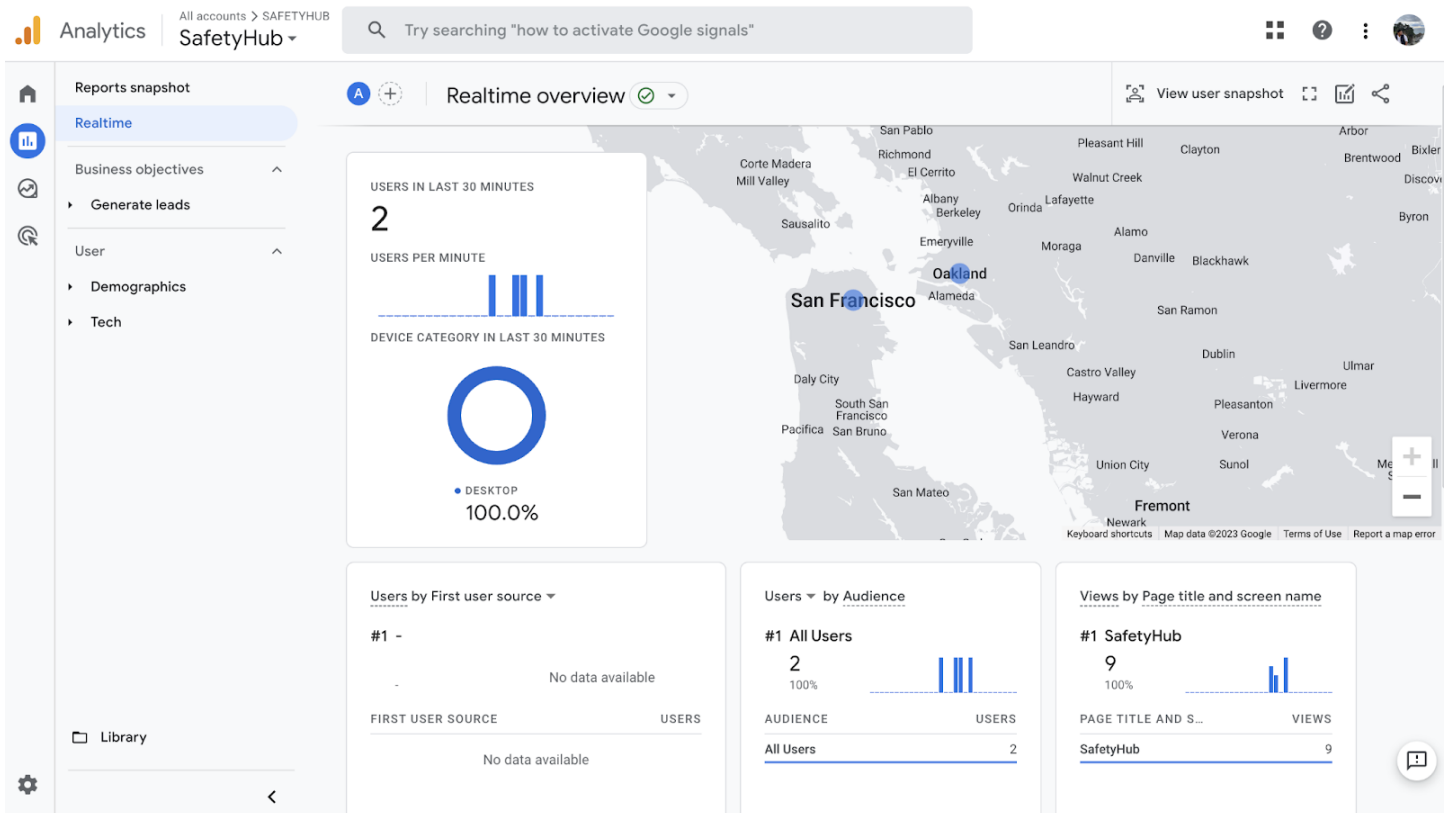
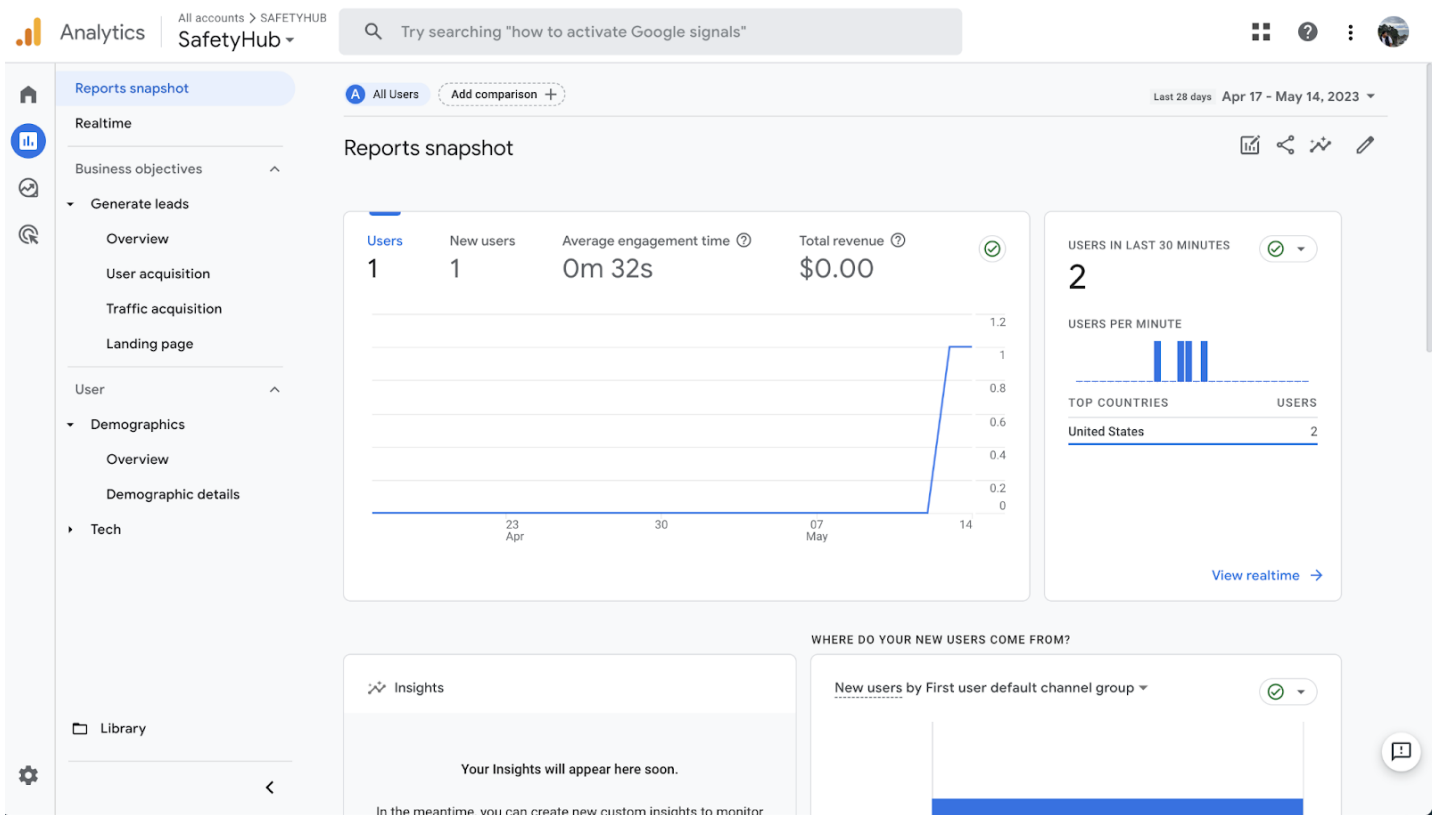
	id	lat	lng	severity	type	title	description	zipCode	countyName	alertStatus	createdAt
1	00d83e8...	37.7749	-122.4194	2	FIRE	San Franc...	A small fire has ...	94117	SanFrancisco	APPROVED	2023-05-12 04:09:09.711
2	40a1f3b...	38.578	122.9888	2	WEATHER	Flooding	There is a flood ...		Alameda	PENDING	2023-05-13 06:48:26.784
3	653e32f...	36.7378	-119.7871	0	SECURITY	Cat on tree	please help cat ...		Fresno	APPROVED	2023-05-12 05:15:32.296
4	717a871...	34.0522	-118.2437	3	WEATHER	San Franc...	A storm is approa...		LosAngeles	APPROVED	2023-05-12 04:09:09.711
5	89517cf...	36.7783	-119.4179	1	HEALTH	Fresno He...	Air quality warni...	93727	Fresno	APPROVED	2023-05-12 04:09:09.711
6	d8c9c8b...	38.578	-122.9888	1	FIRE	Fire in a...	A fire is happeni...		Sonoma	APPROVED	2023-05-13 06:20:25.455

- User tables

	id	email	password	role	directorStatus	directorAlert	countyName	fire_alerts	security_alerts	weather_alerts
1	076bafdf...	admin@gma...	\$2b\$10\$nVf1t...	ADMIN	<null>	<null>	Sonoma	1	0	0
2	43d64053...	director_...	\$2b\$10\$R2P3k...	DIRECTOR...	APPROVED	HEALTH	Sonoma	1	0	0
3	5ee62638...	user@exam...	\$2b\$10\$HaPAV...	USER	<null>	<null>	Sonoma	0	1	1
4	60226831...	admin@exa...	\$2b\$10\$fuFJS...	ADMIN	<null>	<null>	SanFrancisco	1	0	0
5	846c3825...	director_...	\$2b\$10\$H6fc...	DIRECTOR...	APPROVED	FIRE	SanFrancisco	1	0	0
6	9ebe40ff...	Imenelbah...	\$2b\$10\$JLt3u...	USER	<null>	<null>	Tuolumne	1	1	1
7	eaf31459...	director_...	\$2b\$10\$bKEnd...	DIRECTOR...	PENDING	HEALTH	SanFrancisco	0	0	0

	password	role	directorStatus	directorAlert	countyName	fire_alerts	security_alerts	weather_alerts	health_alerts
1	\$2b\$10\$nVf1t...	ADMIN	<null>	<null>	Sonoma	1	0	1	0
2	\$2b\$10\$R2P3k...	DIRECTOR...	APPROVED	HEALTH	Sonoma	1	0	1	0
3	\$2b\$10\$HaPAV...	USER	<null>	<null>	Sonoma	0	1	1	1
4	\$2b\$10\$fuFJS...	ADMIN	<null>	<null>	SanFrancisco	1	0	1	1
5	\$2b\$10\$H6fc...	DIRECTOR...	APPROVED	FIRE	SanFrancisco	1	0	0	1
6	\$2b\$10\$JLt3u...	USER	<null>	<null>	Tuolumne	1	1	1	1
7	\$2b\$10\$bKEnd...	DIRECTOR...	PENDING	HEALTH	SanFrancisco	0	0	1	0

Google Analytics Plot:



Screenshots of Trello:

The screenshot displays a Trello board with a dark header and a light gray background. The board is organized into five columns, each representing a milestone. The first column, 'Milestone-3', has a due date of 'Apr 5 - Apr 11' and contains seven task cards. The second column, 'Milestone-4', has a due date of 'Apr 19 - Apr 25' and contains six task cards. The third column, 'Final touches to the App: Backend', has a due date of 'May 9' and contains four task cards. The fourth column, 'Final touches to the App: Frontend', has a due date of 'May 9' and contains four task cards. The fifth column, 'Milestone-5', has a due date of 'Apr 26 - May 16' and contains one task card. Each task card includes a title, a description, and a list of assignees represented by colored avatars. The board also features a search bar, a filter button, and a share button in the top right corner.

Milestone-3 (due Apr 5 - Apr 11)

- 1. Users shall be able to receive notification alerts - Current and past alerts will be in a chatbox that the user can scroll through
- 2. Users shall have login authentication. - To be done via sessions so the user does not have to log in whenever they access a new page.
- 3. Users shall be able to search through categories or by text
- 4. System shall have a registration form where users can register - Shall contain fields such as name, email, etc. that will be stored in the database
- 5. Users shall be able to view entities on the map - These entities will consist of covid, weather, etc.
- 6. System shall have authorization levels (user, admin) - There will be two authorization levels: user and admin. The admin can post content (input data/metrics) whereas the user cannot.
- 7. Admin shall be able to input metrics - As an input in the admin management dashboard

Milestone-4 (due Apr 19 - Apr 25)

- Section 1: taken care of from M2
- Section 2: Backend person, add the appropriate tests, someone from the Frontend team will act as your user.
- Section 3: Backend person, add the appropriate tests, the same person acting as a user in section 2 will act as a user.
- Section 4: Backend person, ensure to emulate the code review process detailed in the doc, the other person in frontend team will act as your 'peer'.
- Section 5: Backend person, talk about authorization methods we are using, how Prisma handles SQL injections, and hashing the user's password.
- Section 6: Backend person, list out the nonfunctional requirements and their status as of now.

Final touches to the App: Backend (due May 9)

- Improve app
- Backend: Make sure admin route is only accessed by admin and not county directors
- Backend: Make the change password page work (Update user's credentials).
- Backend: Implement the settings page: Update user's account so they can change their county and type of alerts they want to receive.
- Backend: Change Database so we can take in user preference when it comes to notifications on types of alerts. When an alert is created, grab all of the users that live in that county and want to receive that type of alert, and connect them to the new alert.
- Backend: Add a route so logged in user's can pull notifications that were pushed to them in the last 24 hours (The alerts that are pulled must have "APPROVED" as status)
- Backend: Change the registration form

Final touches to the App: Frontend (due May 9)

- Improve app
- Frontend: Implement a change of password page.
- Frontend: Make a settings page: Users can change their county and the type of alerts they want to receive.
- Frontend: Render appropriate errors for the password (The registration form). Currently, a server error is rendered when the password is too short (same for confirm password box I think)
- Frontend: Add county field and alert types to the registration form. Make a drop box (like the one in the search). Also, add checkboxes so user's can choose what types of alerts to receive
- Frontend: Render Notifications on screen. It can be an icon (bell) that expands, a tab, be creative.
- Frontend: In the Vertical prototype

Milestone-5 (due Apr 26 - May 16)

- Milestone-5 Final Demo due

Team Member Contributions:

Diego Flores - 648 - Team 3- Team Contributions

Diego A Flores Flores <dfloresflores@mail.sfsu.edu>

Tue 5/16/2023 1:43 AM

To: Carmelo De Guzman <cdeguzman@mail.sfsu.edu>; Coline Marie Odette Seguret <cseguret@sfsu.edu>; Sumith Shrestha <sshrestha12@sfsu.edu>; Adrian Vazquez <avazquez10@mail.sfsu.edu>; Isabel Carolina Falcon <ifalcon@mail.sfsu.edu>

Hello team, Diego here. I just wanted to contact all of you and recap the contributions I did to this project:

As the team lead, I was in charge of organizing the team and ensuring that we were on track. This includes reviewing milestones and breaking problems down into small pieces. I was also the spokesperson for the team and was in charge of keeping constant communication with the professor to clear any doubts we had. Additionally, I coordinated presentations (recap presentations and also the final presentation). Also, I ensured that our work was meaningful for this class (following the project specifications closely)

I also contributed to the project by coding our project's notification system, user settings functionality, and updating alerts. Additionally, I played around with the database and attempted different relations within our tables, and although my ideas were not implemented, it proved other options wrong. I don't know the number of submissions I made to the dev branch.

Adrian Vazquez- 648 - Team 3- Team Contributions



From: Adrian Vazquez <avazquez10@mail.sfsu.edu>

Sent: Tuesday, May 16, 2023 2:18 AM

To: Carmelo De Guzman <cdeguzman@mail.sfsu.edu>; Isabel Carolina Falcon <ifalcon@mail.sfsu.edu>; Diego A Flores Flores <dfloresflores@mail.sfsu.edu>; Coline Marie Odette Seguret <cseguret@sfsu.edu>; Sumith Shrestha <sshrestha12@sfsu.edu>

Subject: Adrian Vazquez- 648 - Team 3- Team Contributions

Hello team, as the backend lead I primarily worked on the search code logic in the backend and had to extract that information from the frontend to send it to the backend. This code was a big part of the Vertical Prototype, thus it was rigorously tested for correctness. However, due to changes in the DB, zip codes, etc. that had been made halfway through the project, this code was not merged because it would not have been compatible with these changes.

I also contributed to the backend change-password logic which includes some user authentication and made a couple of frontend changes such as adding a function to the AuthClient API to simplify its use for the frontend team. I was also in charge of creating the list of functionality requirements and prioritizing them.

I don't know the number of submissions I made to my dev branches because they were deleted just like everyone else.

—

Adrian Vazquez



Carmelo De Guzman - 648 - Team 3 - Team Contributions



● Carmelo De Guzman

Today at 8:46 AM

To: ● Diego A Flores Flores; ● Adrian Vazquez; ● Coline Marie Odette Seguret;

● Isabel Carolina Falcon; ● Sumith Shrestha

Cc: ● Carmelo De Guzman

Hello Team,

As instructed by the Milestone 5 documentation, here are the list of things I contributed to the team project:

- **Role: Frontend Lead**
- Essentially supervised the design and development of the frontend portion of the project.
- Created UI Mockups and Storyboards on initial UI design for the product website.
- Worked on most of the UI elements/design on almost every page (Home, Register, Login, Alerts History, Account Settings, Contact, Navbar, and Footer).
- Worked on assigned sections of Milestone Documents (M1, M2, M4, and M5) and revised sections of documentation, if needed.
- Performed QA and Useability testing as well as peer reviewing backend code (search)
- Attended all scheduled/planned team meetings.
- Planned and scheduled separate team meetings (frontend only) for progress check.
- Number of submissions (PR: pull requests) to main team dev branch = **8 submissions**
- Since my own dev branch was deleted like everyone else, I cannot determine how many total commits I've made to the team project.

Best,
Carmelo De Guzman

Coline Seguret



SFSU

12:26

Rép. : Sumith Shrestha-CSC642-Team 3-Contribution

À : Sumith Shrestha, Cc : Coline Marie Odette Seguret, Adrian Vazquez et 2 de plus

[Détails](#)

Hi team.

For the M5 render I worked on the whole project I have a total of 32 contributions.

- Deployment on scaleway, with https implementation
- All backend infrastructure and database logic
- Frontend all the backend relation with the frontend with SDK programming.
- Implementation of the different pages and the authoring logic
- Moreover I was github master so I managed all the review and merge part

Isabel Falcon

To: Coline Marie Odette Seguret; Sumith Shrestha

Cc: Coline Marie Odette Seguret; Adrian Vazquez; Diego A Flores Flores

Hi team,

For this project:

- Besides adding my code for M0, I didn't work on the technical side
- Mainly did documentation for the milestones
 - UML Diagrams for M3
 - Use cases/personas for M2
 - Creating the tests for M4
 - Screenshots for M5
- Participated in presentation slides and group meetings
- Helped team lead when needed

Sumith Shrestha

Sumith Shrestha-CSC642-Team 3-Contribution



Sumith Shrestha

To: Coline Marie Odette Seguret; Adrian Vazquez; Isabel Carolina Falcon +1 other



Tue 5/16/2023 12:13 PM

Hello All,

As a Front End of Team 3, the list of contribution to the team project are as follows:

Role: Front-End

- Helped to create the mockup UI design in the initial phase of the product design.
- Worked on setting up google analytics.
- Peer review and error fixes on the front-end pages.
- Worked with frontend lead to contribute to setting up the website pages and design.
- Contributed to password change and other changes in the search section.
- Worked with the backend team for connecting the front-end password change.
- Attended the team-scheduled meetings and discussions via Discord and Trillo.

I am not sure about the number of contributions as my dev branch was deleted like others.

Post Analysis:

1. So, one big challenge we had was that some of us had different levels of knowledge with React. It was a bit of a struggle, but we managed to get through it. We tried stuff out, made mistakes, and asked our teammates who knew more for help. We also made sure to be honest about how much we knew, so nobody was left in the dark. Next time, I think it would be a good idea for us to spend more time learning React before diving into a project. That way, we'll all start on the same page.
2. Staying Focused: Okay, so another challenge was staying on track. We'd sometimes get distracted or lose sight of our goals. Sometimes we would have so many ideas and follow paths that were a bit unnecessary. Narrowing our options and pursuing what worked was difficult. It took trials and errors to conclude on what exactly to do. This killed a lot of time for us, leading us to work in a time rush. This could've been avoided by a stronger team lead that took decisions when they were necessary. Next time, our team lead needs to ensure that he/she has a clearer mind on what the final product should look like.
3. GitHub Madness: Working on GitHub was a bit tricky too. We had trouble organizing our code and merging everything together. There were times that we had conflicts when merging our code together. Other times our PRs messed up already working code. The reason why this happened often is because of team communication and github expertise. To resolve this issue, our team has to have more communication and be explicit about the features they are working on. Additionally, getting more github practice is always a net positive.
4. Communication: Our team struggled on keeping constant communication. This resulted in wasted time and effort. As a team lead I should have pushed for more team meetings. Additionally, as a team, we should have been a bit more present during the meetings. Next time when working in teams, we should prioritize communication more.