

Final Project for SW Engineering Class CSC 648-848 Spring 2023

Application Title: Dooms Day Alert

Date: May 9, 2023

Team 06

Umid Muradli (umuradli@mail.sfsu.edu)

Khabibullo Khujamberdiev

North Wiriyachinnakarn

Matthew Marcos

Arin Ton

Edward Li

Demo

<http://34.212.246.140/>

Product summary

- **Name of the product**

- Dooms Day Alert

- **Executive Summary**

Dooms Day Alert is a web-based service that aims to revolutionize the way California residents stay informed about potential dangers related to health, physical safety, and extreme weather conditions. Our platform provides real-time input of metrics related to COVID-19/public infections, wildfire evacuation levels, and other security emergencies, which enables residents to access and search this information at a county level.

An easy-to-use interface allows users to register if they would like to receive personalized alerts based on their selected preferred county, helping them to shelter-in-place, evacuate for wildfire, or avoid certain areas for security or weather situations. Our platform includes a map-based interface for easy visualization of events, with all data being reviewed and validated by our team members to ensure accuracy and appropriateness.

One of the key advantages of the web application is its commitment to maintaining user privacy, with clear communication of all privacy policies. The platform will also be optimized for laptop browsers and selected functions will render well on mobile devices, ensuring access for a broad range of users. With the integration of Google maps and analytics, Dooms Day Alert provides a seamless and intuitive experience for all users. The platform is designed with well-organized and maintainable code, making it easy to modify for future improvements.

Dooms Day Alert not only aids during emergencies but also has the potential to generate revenue through partnerships and advertising. Emergency supply companies, for example, may collaborate with Dooms Day Alert to promote their products to users who might require them.

Moreover, Dooms Day Alert can accept donations and allocate them towards aiding families in need during emergencies. The app could operate on a non-profit basis, charging no management fee for these donations, to ensure that all funds go towards helping those affected by disasters. This could incentivize users to support the app and contribute to its development and promotion.

Our team consists of a talented group of students, with diverse skills and expertise, who are all committed to developing the Dooms Day Alert website into a valuable resource for California residents. Our front-end developers are skilled in designing user-friendly interfaces and creating seamless user experiences. Our back-end developers are experts in creating scalability and they are responsible for developing the underlying infrastructure of the platform, ensuring its reliability, and working with large amounts of data to provide real-time information to users.

- **List of major P1 functions**

- Users have the option to create an account by entering their email, username, and choosing a password, also receive alerts based on their chosen county.
- Users are able to opt-in as a government official, which allows them to add data to the metrics.
- Users can search a specific city within the website's search features.
- On the Covid-19 page, users can search for a specific county to access information such as the number of covid-19 cases reported in that area.
- On the Weather page, users can search for a specific county to access information, such as the temperature, air quality, and warnings.
- On the Wildfires page, users can search for a specific county to access information such as affected area.

- On the Security page, users can search for a specific county to view incident types, dates, times and more.
 - Users can interact with maps to visualize the different counties within California.
 - Users can interact with the map and choose between Security and Wildfire to display on the map.
 - Users can search for the name of the fire in the **wildfire** page.
 - Users can search for a specific incident type in the **security** page.
 - Users can access and view temperature, air quality, and warnings for weather.
 - Users can access and view incidents and law enforcement for security/crimes.
 - Users can access and view fire incidents, evacuation orders, or warnings for wildfires.
 - Users can access and view case counts, deaths and recoveries.
 - Users are required to provide information to become an official account.
- **Say what is unique in your product**
 - This product is unique because it offers a comprehensive and centralized platform that combines various critical metrics, such as covid-cases, weather, wildfires, and security and it is specifically designed for California. It also allows government officials to contribute data, ensuring accurate and up-to-date information. The interactive maps and advanced search features provide users with a user-friendly and visually engaging experience to stay informed about local conditions and events.
 - **URL to your product accessible to instructors, on deployment server**
 - <http://34.212.246.140/>

Home	More ▾	About	Login	Sign-up
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Dooms Day Alert

Filter ▾

Covid - 19	Security	Weather	Wildfire
<input type="text" value="Search for a County..."/>			

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Home	More ▾	About	Hi, heytest ▾
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Dooms Day Alert

Filter ▾

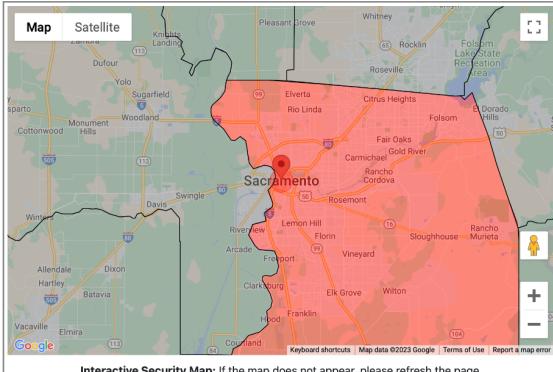
Covid - 19	Security	Weather	Wildfire
Searched Location: Alameda Confirmed Cases: 1000 Deaths: 20 Recoveries: 777	Searched Location: Alameda Type: Death reaper Description: Incident of Death reaper at 1221 Oak St, Oakland, CA 94612 Date: 2023-04-25T00:00:00.000Z Time: 15:50:21 Address: 1221 Oak St, Oakland, CA 94612	Searched Location: Alameda Farenheight: 99 AQI: 109 Warnings: Poor Air Quality	Searched Location: Alameda Wildfires: Blazin Date Start: 2022-06-03T00:00:00.000Z Date End: 2022-06-05T00:00:00.000Z Warnings: Hot Fire Casualties: 5

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Security

Sacramento  Search



Security

Searched Location: Sacramento
Type: Reckless driving
Description: Incident of Reckless driving at 700 H St, Sacramento, CA 95814
Date: 2023-08-02T00:00:00.000Z
Time: 03:26:31
Address: 700 H St, Sacramento, CA 95814

Home About

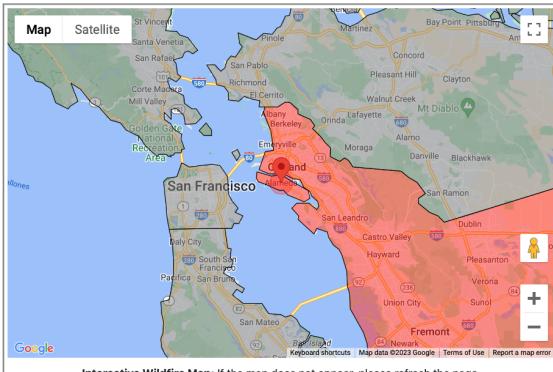
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Wildfire

Alameda  Search



Wildfire

Searched Location: Alameda
Wildfires: Blazin
Date Start: 2022-06-03T00:00:00.000Z
Date End: 2022-06-05T00:00:00.000Z
Warnings: Hot Fire
Casualties: 5

Home About

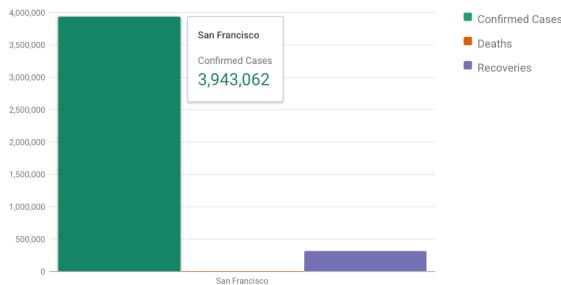
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Covid - 19

San Francisco  Search



Covid-19

Searched Location: San Francisco
Confirmed Cases: 3943062
Deaths: 5781
Recoveries: 321710

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Weather

Search  Search



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[Login](#) [Sign-up](#)

Registration

Username

Email address

Password

Confirm Password

Security Question

Enter Security Answer

Regular Account

Already have an account? [Login](#)

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[Login](#) [Sign-up](#)

Login

Email address

Password

[Forgot Password](#)

Don't have an account? [Sign-up](#)

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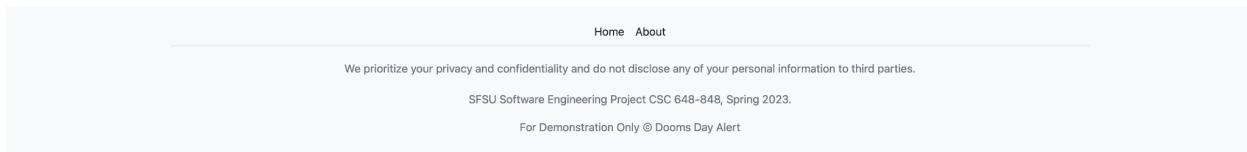
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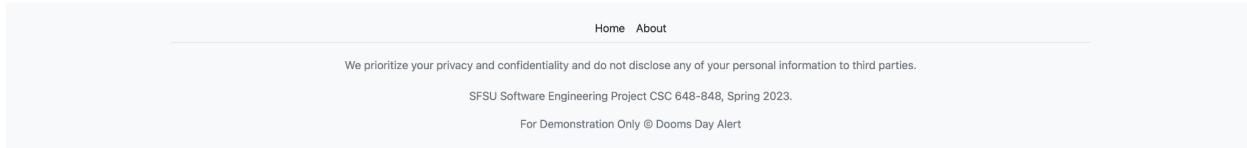
Manage Account

Change Password
Upgrade Account Type
Add Data
Alert Settings



Change Password

Old Password	<input type="text"/>
New Password	<input type="text"/>
Confirm New Password	<input type="text"/>
<input type="button" value="Submit"/>	



Home More ▾ About Hi, heystest ▾

Upgrade Account Type

Select Account Type

Official Account

Email

Enter Email

Company / Organization

Enter Company/Organization Name

Title of Employment

Enter Position/Title

Manager Contact Information

Enter Manager Name

Enter Manager Email

Submit

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Add Data

Security

Officer Name Badge Number

County Address

Incident Type Report Number

Date (YYYY-MM-DD) Time (HH:MM:SS)

Incident Description

Submit

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Add Data

Wildfire

County	Number of Casualties
Name	Warnings
Date Start (YYYY-MM-DD)	Date End (YYYY-MM-DD)

Submit

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Add Data

Covid-19

County	Number of Recoveries
Number of Death	Number of Cases

Submit

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Add Data

Weather

County AQI

Temperature Warnings

Submit

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Alert Settings

Enable the Alerts by choosing a county:

Select your county

Enable

Disable

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Software Engineering Class SFSU

Spring 2023 - Section 02

Team 6

North Wiriyachinnakarn

Matthew Marcos

Umid Muradli

Edward Li

Khabibullo Khujamberdiev

Arin Ton

Screenshots of key DB tables

City / Counties

	zip	city	county
▶	90001	Los Angeles	Los Angeles
	90037	Los Angeles	Los Angeles
	90044	Los Angeles	Los Angeles
	91766	Pomona	Los Angeles
	92008	Carlsbad	San Diego
	92084	Vista	San Diego
	92101	San Diego	San Diego
	92109	San Diego	San Diego
	92243	El Centro	Imperial
	92373	Redlands	San Bernardino
	92501	Riverside	Riverside
	92502	Riverside	Riverside

Covid-19 Table

	id	confirmedCases	deaths	recoveries	county
▶	1	1000	20	777	Alameda
	2	10000	4	1	Alpine
	3	7174627	5	63389	Amador
	4	5303685	7	199384	Butte
	5	2020496	13	940757	Calaveras
	6	7128411	10	888010	Colusa
	7	10	10	10	Contra Costa
	8	4071519	15	7939	Del Norte
	9	6920480	25	73879	El Dorado
	10	1847708	30	411080	Fresno
	11	4497463	15	641370	Glenn
	12	1444670	5005	460005	Humboldt

Security

	id	date	time	incidentType	incidentDescription	officerName	badgeNumber	incidentReportNum	address	county
▶	1	2023-04-25	15:50:21	Death reaper	Incident of Death...	Jesus	77777	999	1221 Oak St, Oak...	Alameda
	2	2023-04-14	15:41:19	Shooting	Incident of Shoot...	John Wick	77512	1	99 Water St, Mar...	Alpine
	3	2023-04-13	00:00:00	Car accident	Incident of Car acc...	Edward Li	37313	2	810 Court St, Jac...	Amador
	4	2023-07-21	00:00:00	Theft	Incident of Theft ...	Khabibullo Khujab...	46002	3	1 Court St, Orovil...	Butte
	5	2023-06-12	14:36:28	Assault	Incident of Assau...	Matthew Marcos	58993	4	891 Mountain Ra...	Calaveras
	6	2023-08-07	19:40:23	Vandalism	Incident of Vanda...	North Wiriachin...	91600	5	546 Jay St, Colus...	Colusa
	7	2023-06-23	05:13:51	Fraud	Incident of Fraud...	Umid Muradli	87938	6	651 Pine St, Mart...	Contra Costa
	8	2023-07-23	14:21:17	Robbery	Incident of Robb...	Emma Watson	74612	7	450 H St, Cresce...	Del Norte
	9	2023-04-20	18:58:04	Domestic disturb...	Incident of Dome...	Michael Johnson	69129	8	360 Fair Ln, Place...	El Dorado
	10	2023-05-16	03:39:45	Noise complaint	Incident of Noise ...	Olivia Williams	18887	9	1100 Van Ness A...	Fresno
	11	2023-07-04	07:43:22	Drug possession	Incident of Drug ...	Benjamin Garcia	51776	10	516 W Sycamore ...	Glenn
	12	2023-06-11	10:10:50	Transgender	Incident of Trans...	Caroline Davis	32890	11	925 5th St, Eureka	Humboldt

Weather

	id	temperature	AQI	warnings	county
1	1	99	109	Poor Air Quality	Alameda
2	1	74	none	Alpine	
3	65	191	Poor Air Quality	Amador	
4	65	165	Poor Air Quality	Butte	
5	87	22	none	Calaveras	
6	87	149	Poor Air Quality	Colusa	
7	70	189	Poor Air Quality	Contra Costa	
8	87	14	none	Del Norte	
9	64	146	Poor Air Quality	El Dorado	
10	67	184	Poor Air Quality	Fresno	
11	81	25	none	Glenn	
12	71	33	none	Humboldt	
13	93	200	Poor Air Quality	Imperial	
14	82	61	none	Tulare	

Wildfire

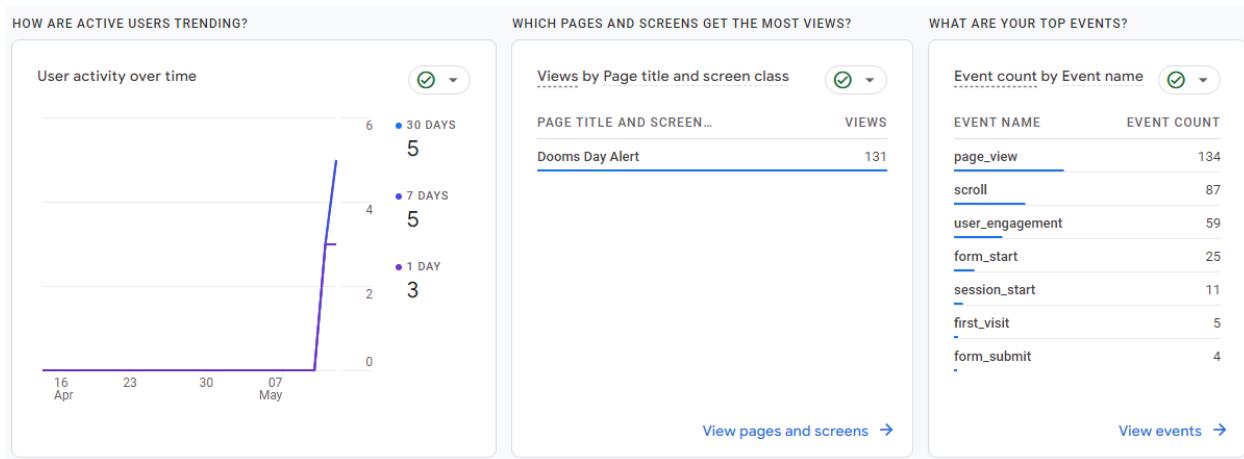
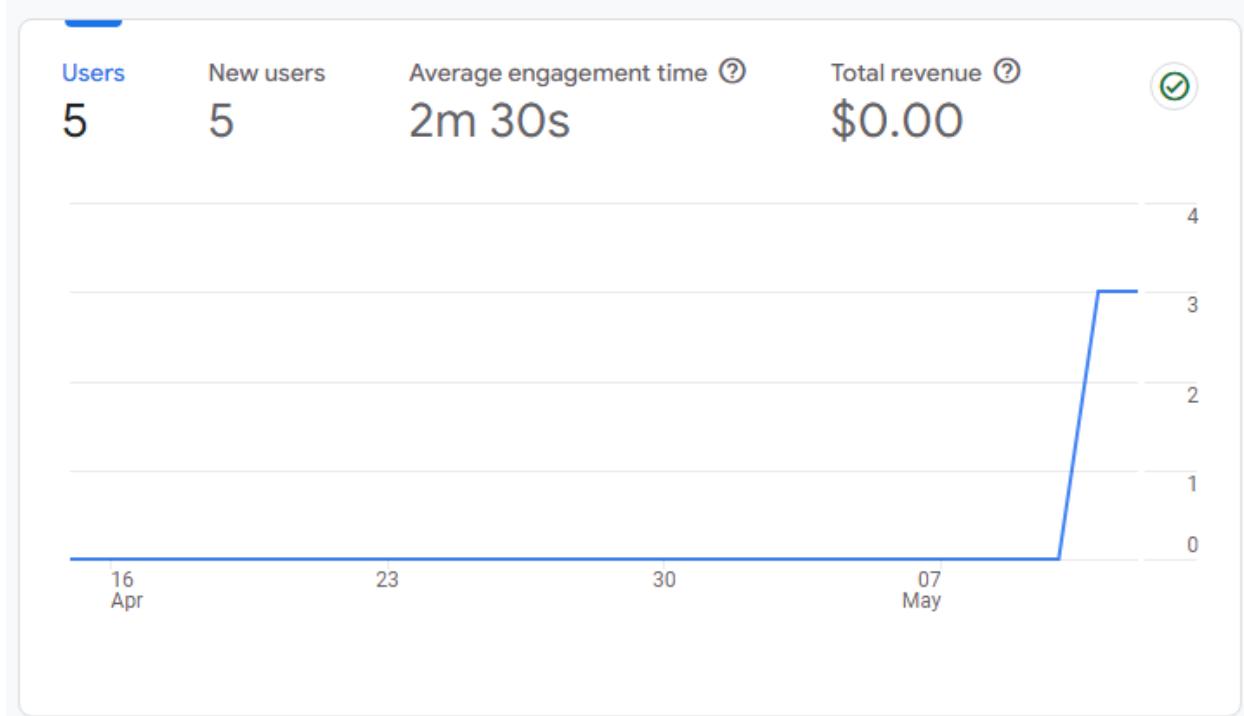
	id	name	dateStart	dateEnd	warnings	casualties	county
1	1	Blazin	2022-06-03	2022-06-05	Hot Fire	5	Alameda
2	none		2023-07-06	2023-07-06	none	49	Alpine
3	none		2023-06-30	2023-06-30	none	0	Amador
4	none		2023-06-21	2023-06-21	none	0	Butte
5	King Fire		2023-04-16	2023-05-14	Poor Air Quality	47	Calaveras
6	Dixie Fire		2023-06-26	2023-07-05	Poor Air Quality	32	Colusa
7	Detwiler Fire		2023-04-19	2023-06-02	Poor Air Quality	29	Contra Costa
8	none		2023-08-12	2023-08-12	none	0	Del Norte
9	none		2023-06-25	2023-06-25	none	0	El Dorado
10	none		2023-06-08	2023-06-08	none	0	Fresno
11	Soberanes ...		2023-05-27	2023-06-15	Poor Air Quality	29	Glenn
12	none		2023-04-19	2023-04-19	none	0	Humboldt
13	none		2023-08-13	2023-08-13	none	0	Imperial
14	Kincade Fire		2023-04-28	2023-05-15	Poor Air Quality	37	Tulare

Account

	#id	username	email	password	SecAnswer	prefCounty	account_type
1	arin	aton@mail.sfsu.e...	\$2b\$10\$Drh0BQ...	1	Sonoma	regular	
2	umid	umuradli@mail.sf...	\$2b\$10\$BF...\$2b\$10\$BF.UTsYnxPa2E/I4lSzPP.hIn.U5KCPSAiZTT0032Cff,4PryxURi				official
3	north	swiriyachinnakarn...	\$2b\$10\$eL6yFWt...	3	HULL	regular	
4	matthew	mmarcos4@mail....	\$2b\$10\$xCW0M8...	4	HULL	official	
5	edward	eli9@sfsu.edu	\$2b\$10\$YccFwm...	5	HULL	regular	
6	khabibullo	kkhujamberdiev...	\$2b\$10\$bNi713j...	6	HULL	official	
84	Umidm	umid.murad@hotmail.com	\$2b\$10\$Cp/4tTq...	test	Contra Costa	regular	
85	hhh	hhh@gmail.com	\$2b\$10\$5ji0lRb...	sleep	Colusa	regular	
86	heytest	heytest@mail.com	\$2b\$10\$.aNiEHhl...	mayo	Contra Costa	official	
*					HULL		

Google Analytics Plot for Dooms Day Site

Reports snapshot



Screenshot of Task Management System (Trello and Github)

Our team started to used Trello, Github and Discord for Task Management system. Team Lead would assign tasks using Trello throughout the project. We would discuss further on discuss and split up the tasks. However as the time progressed, our team learned to use *Issues* feature from Github to discuss tasks and assign them to team mates. This project allowed our team to learn and improve as we addressed issues.

Author		Label	Projects	Milestones	Assignee	Sort
4 Open	✓ 11 Closed					
<input type="checkbox"/>	<input checked="" type="radio"/> Alert is not responsive bug			1		
	#120 by Khabibkh was closed 15 hours ago					
<input type="checkbox"/>	<input checked="" type="radio"/> Alert card issue bug			1		
	#118 by Khabibkh was closed 15 hours ago					
<input type="checkbox"/>	<input checked="" type="radio"/> Alert Bug bug			1		1
	#115 by umidmurad was closed 17 hours ago					
<input type="checkbox"/>	<input checked="" type="radio"/> Alerts Console Errors			1		
	#113 by umidmurad was closed yesterday					
<input type="checkbox"/>	<input checked="" type="radio"/> Replace Axios with Fetch enhancement question					3
	#112 by umidmurad was closed 15 hours ago					
<input type="checkbox"/>	<input checked="" type="radio"/> Header changes after Login			1		
	#105 by umidmurad was closed 3 days ago					
<input type="checkbox"/>	<input checked="" type="radio"/> Wildfire/Security search pages			1		
	#102 by a-ton9 was closed yesterday					
<input type="checkbox"/>	<input checked="" type="radio"/> Wildfire/ Security map bug					1
	#101 by Khabibkh was closed 17 hours ago					
<input type="checkbox"/>	<input checked="" type="radio"/> Security & Wildfire			1		1
	#99 by umidmurad was closed 3 days ago					
<input type="checkbox"/>	<input checked="" type="radio"/> Registration Issue bug			1		
	#98 by umidmurad was closed yesterday					
<input type="checkbox"/>	<input checked="" type="radio"/> Default State			1		1
	#97 by umidmurad was closed 3 days ago					

Trello Workspaces Recent Starred Templates Create

Search

C CSC648 Free

Boards Members Workspace settings

Workspace views Table Calendar

Your boards 648

648 ⚡ | Workspace visible Board

Power-Ups Automation Filter +1 Share ...

To Do

- SQL Injection and XSS
- M5 Documentation

Doing

- + Add a card

Done

- Registration Issue
- Securit and Wildfire UI
- Weather not found
- Default State of Alerts
- Manage account page
- Covid-19 Page
- Search Implementation - Home Page
- Security Page
- Contact Us
- Login Page
- Sign up Page
- Wildfire Page
- Documentation
- High Level UML Diagrams
- Wb Presentation
- UI Mockups and Storyboards (high)

+ Add another list

+ Add a card

Try Premium free

The image shows a screenshot of the Trello web application. At the top, there's a navigation bar with links for 'Trello', 'Workspaces', 'Recent', 'Starred', 'Templates', 'Create', and a search bar. Below the navigation is a sidebar on the left containing sections for 'Boards', 'Members', 'Workspace settings', 'Workspace views' (with 'Table' and 'Calendar' options), and 'Your boards' (showing 648). The main area features a dark background with a central image of a spiral galaxy. On the right, there's a 'Board' view with three columns: 'To Do', 'Doing', and 'Done'. The 'To Do' column has two cards: 'SQL Injection and XSS' (with a red checkmark and a comment icon) and 'M5 Documentation' (with a green checkmark and a comment icon). The 'Doing' column has a placeholder '+ Add a card'. The 'Done' column is filled with many cards, each with a small profile picture, a title, and a status indicator (green dot for 'In Progress' or 'Completed'). Some cards in the 'Done' column include: 'Registration Issue', 'Securit and Wildfire UI', 'Weather not found', 'Default State of Alerts', 'Manage account page', 'Covid-19 Page', 'Search Implementation - Home Page', 'Security Page', 'Contact Us', 'Login Page', 'Sign up Page', 'Wildfire Page', 'Documentation', 'High Level UML Diagrams', 'Wb Presentation', and 'UI Mockups and Storyboards (high)'. A purple button at the bottom left says '+ Try Premium free'.

Team Contributions

Umid Muradli's email:

Team Member Contribution

UM

✉ Umid Muradli <umuradli@mail.sfsu.edu> Today at 7:50 PM

To: ✉ North Wiriyachinnakarn
Cc: ✉ Arin Ton; ✉ Khabibullo Khujamberdiev; ✉ Matthew Mercado Marcos;
✉ Edward Li [^](#)

Hello Dear members of the Team 6,

This email aims to summarize my contributions to the project and describe the specific areas where I provided assistance and resolved issues.

As it is known, I am the Team Lead of the group. I believe that I was able to lead by example, keep the group's spirit high, and bring the group together when necessary. The team projects can be difficult when team members do not attend or avoid assisting, however I ensured that every team member was assigned tasks and they worked towards the end goal collectively.

Additionally, I was able to do the following things for this project:

- Creating the server and maintaining it till the end.
- Writing Bash script to automate project deployment to the server.
- Connecting the Front end to the Backend, in other words, establishing Apache and server connection and maintaining it till the end.
- Implementing Login/Registration – Authentication.
- Implementing interactive Headers based on Authentication status.
- Helping on the Front End, designing multiple page's UI.
- Helping on the Back End, assisting when members are having difficulty.
- Assigning tasks to the members to ensure to be on time for every Milestone.
- Fixing small mistakes, doing a clean-up when necessary.

I am aware that there may be additional contributions not included in the above list. However, I would like to mention that as of today, **my commit count has reached 173**. This project has brought me a lot of joy as we made progress. However, we also faced some unfortunate events such as, I, accidentally deleting the 'Home' directory of the server, which resulted in the need to create a new server and start over again.

Despite all the difficulties we have went through, I am happy to announce that we have finally finished the final product!!!

I am thankful for all your hard work and contributions throughout the project. I wish everyone of you to succeed in your career, and please reach out to me if you have any questions.

Umid Muradli
Team 06 – Team Lead

Edward Li's email:

Team Member Contribution

Edward Li
To: Umid Muradli
Cc: Arin Ton; Khabibullo Khujamberdiev; Matthew Mercado Marcos; North Wiriyachinnakarn
Hello Dear members of the Team 6,
This email aims to summarize my contributions to the project and describe the specific areas where I provided assistance and resolved issues.
As you may be aware, I am part of the team and I feel that I made a valuable contribution to the project. Although I faced challenges due to my limited understanding of JavaScript, I made every effort to utilize the knowledge I possessed in order to overcome them.
Additionally, I was able to do the following things for this project:
- Competitive Analysis for Milestone 1
- High Level Architecture, Database Organization 2 (Done with Arin)
- Search function for User Account (Done with Arin)
- Filter Function on Home Page
- Code Review for Milestone 4
- Revised QA Test Plan in Milestone 4
- Set up Google Analytics for Milestone 5
- Database Screenshots for Milestone 5
This project has provided me with valuable insights into the dynamics of teamwork. It required extensive communication and understanding of each team member's code and their intended use of certain elements. For instance, when I initially attempted to integrate the filter function, my approach involved retrieving requested information from the database and displaying it on the website. However, after discussing it with Matthew, he suggested a more efficient approach of disabling cards (which were used to present the information) that the user did not request. The suggestion provided to me had an immense impact on my ability to develop the filter function successfully. I would like to express my gratitude to Umid, our team lead, for maintaining group morale and providing assistance to me and other members during challenging times.
The number of submissions I have made to GitHub team dev. branch: 6 commits.
Despite the numerous obstacles we encountered, the relentless four-month journey has finally come to an end!
I am immensely grateful to everyone in the group for their contributions. It was our collective effort that enabled the creation of such an exceptional web application.
Edward Li
Team 06 – Team Member

North Wiriachinnakarn's email:

Team Member Contribution

North Wiriachinnakarn
To: Umid Muradli
Cc: Matthew Mercado Marcos; Edward Li; Khabibullo Khujamberdiev; Arin Ton
Hello Team Members,

I would like to take a moment to review my contributions to our team project and teamwork. As a backend developer, my primary focus has been managing the backend of our website using JavaScript, specifically NodeJS. During this project, I have contributed to several critical areas, such as enabling users to update metrics such as weather, covid-19, wildfire, and security within our database. Furthermore, I have developed functionalities that allow users to search for specific security incidents or wildfires by name as well as implement project milestones.

In terms of teamwork, I have actively participated in our team meetings and made sure to keep everyone informed of any updates or issues that arose during my work. If there were conflicts with the meeting schedule, I would always try my best to catch up with my team afterward and ensure that I was aware of any developments I had missed. I am grateful for all of our team members' hard work and dedication, especially our team lead's contributions to resolving many of the backend issues.

Regarding my submissions to the GitHub repository, I have made approximately 20 commits for this project, including implementing functions that require updating or adding data from the front-end to the back-end.

I would like to express my appreciation to all of you for being fantastic team members. It has been a pleasure collaborating with each one of you.

Best,
North Wiriachinnakarn
Team 6 - Backend developer

Matthew Marcos's email:

Team Member Contribution

 **Matthew Mercado Marcos <mmarcos4@mail.sfsu.edu...** Today at 10:41 AM

To:     

Hello Dear members of the Team 6,

This email aims to summarize my contributions to the project and describe the specific areas where I provided assistance and resolved issues.

In total, according to GitHub, I had 23 commits.

I was able to do the following things for this project:

- Personas and Main Use Cases for Milestone 1
- List of Major P1 Functions for Milestone 2 (Done with North)
- Registration backend
- Login backend
- Change Password (Done with Umid)
- Forgot Password (Done with Edward and Umid)
- New Password After Forgot Password (Done with Edward and Umid)
- Scribe Feedback
- Usability Test Plan for Milestone 4 (Done with North)
- Executive Summary touch up for Milestone 4
- Set up Website Screenshots Milestone 5

At first, starting this class I truly had a shaky foundation for working in groups. However, seeing hard work from everyone really gave me motivation and I have learned a lot from each one of you.

I would also like to thank Umid for being a great team lead and keeping everyone in check.

Overall, my experience with this group was wonderful and I have nothing but respect for each and everyone of you.

Matthew Marcos
Team 06 – Team Member

Khabibullo Khujamberdiev's email

Team Project Contributions - UI and Front End Lead 
Today at 5:46 PM

 **Khabibullo Khujamberdiev <kkhujamberdiev@sfsu.edu>**
To:  Umid Muradli;  Matthew Mercado Marcos;  +3 more 

Dear Team,

I hope this email finds you well. As we approach the end of our project, I would like to take a moment to outline my contributions to our teamwork and the project as a whole.

My Contributions:

Front End Leadership: As the Front-End Lead, I was responsible for overseeing the entire Front-End team. I ensured smooth collaboration among team members, facilitated problem-solving sessions, and helped set and meet our development milestones.

UI Development: I handled approximately 80% of the User Interface development. This involved creating and refining the user-friendly design of our website, ensuring easy navigation, and maintaining consistent creativity across all pages.

Technology Utilization: We leveraged the React framework and Bootstrap for designing our website. Additionally, we utilized Google Map and Charts APIs to improve the functionality and visual form of our site.

GitHub Submissions:

To date, I've made a total of 40 submissions to our team's development branch on GitHub. These submissions include new feature implementations, bug fixes, and performance improvements for our website's front end.

My goal throughout this project was to contribute substantially to our team's efforts and deliver a high-quality user interface that meets our users' needs. I appreciate your cooperation and feedback in achieving this goal.

Best Regards,

Khabibullo Khujamberdiev

Arin Ton's email

Team Member Contribution

AT Arin Ton
To: Umid Muradli
Cc: Edward Li; Matthew Mercado Marcos; North Wiriyachinnakarn; Khabibullo Khujamberdiev

Sun 5/14/2023 1:02 PM

Hello fellow members of Team 6,

This email was sent to summarize my contributions and teamwork.

As a member of the back-end team, it was my responsibility to ensure that the server side of our product was functioning properly. While I helped with other areas of back-end development, the tasks I primarily worked on for our project were the database and documentation.

A list of the tasks I completed include, but not limited to:

- Creating the Amazon RDS Database for our server
- Writing our project's high-level architecture and database organization (along with Edward)
- Creating tables and table entries in the database
- Creating and formatting documentation for Milestones 1, 2, and 4
- Creating and formatting slide presentations for Week 6 and 12 takeaways
- Implemented search functionality on our application using data from database (along with the rest of back-end team)
- Implemented protections against SQL injection and XSS attacks

Outside of these tasks, I did my best to attend each team meeting I was able to, as well as keeping up communication to ensure me and my team knew the tasks we needed to complete.

According to Github insights, I have made 14 commits to the repository, as well as made many changes to the data and data tables in our database as factors in our project changed.

Lastly, I would like to give a huge thanks all other team members for your cooperation, especially our team lead Umid for being the greatest SE team lead of all time (aka G.O.A.T.). We couldn't have made an application of this caliber without your leadership.

Thank you,
Arin Ton
Team 6 - Backend developer

Post Analysis

Undertaking any project is bound to present challenges that need to be overcome. The critical factor is how one identifies these difficulties and approaches them. During our recent project of building a website from scratch, we encountered various roadblocks and had to work together as a team to overcome them. We brainstormed ideas and solutions to these problems, which taught us essential lessons in teamwork, perseverance, and problem-solving.

One of our first major challenges was server deployment. Unfortunately, we had deleted the server, which forced us to restart. We quickly realized the importance of creating a snapshot of the server to avoid losing progress again. Another significant challenge we faced was having to deploy the website manually every time we made changes. This process was tedious and time-consuming, so we wrote a bash script that took care of the entire deployment process, making it a breeze every time we needed to deploy changes.

Connecting the backend and frontend running on the server was also a challenge. We struggled with having Apache listen to the backend on React, which required a lot of research. It took us five hours of digging through documentation and troubleshooting to finally get it right.

Despite the challenges we faced, we learned some valuable lessons. We realized the importance of taking snapshots of our servers and automating tedious processes to save time. We also learned the significance of research and troubleshooting in web development. Most importantly, we learned the importance of working together as a team and leveraging each other's strengths to overcome challenges.

Our project gave us valuable experience and knowledge in web development. We faced technical and creative issues along the way, but we leveraged our collective expertise to overcome them. This experience taught us the significance of working together as a team to

achieve our objectives. As we progress in our computer science careers, we will undoubtedly encounter similar challenges, but the lessons we learned from this project will serve us well in overcoming them. We are proud of what we accomplished as a team and look forward to using our newfound skills and knowledge in future projects.