# SW Engineering CSC648/848

# **Fall 2020**

## Team 01 Section 02

Code: "Coronafirus"

### Team 01 Members:

Thomas Abadines (Team Lead) (tabadines@mail.sfsu.edu)

Vito Gano (Project Manager) (vgano1@sfsu.edu)

Souhib Trabelsi (Github Master)

Junhao Zhai (Backend)

Amily Wu (Document Master)

Trung-Duong Pham-Vu (Front End)

http://coronafirus.team:3001/

11/10/2020

# 2) Product summary:Please copy this section from M4 (it is put here again for completeness of M5

Product: Coronafirus, It combines two of our main focuses, Coronavirus and Wildfires in California.

### Itemized list

- 1. View Interactive Map (Search) using Google Maps API
- View Data from using Interactive Map, users can click on counties and data will show up for that county.
- 3. Login (Covid Director), Directors should be able to login with a premade account.
- 4. Login (Fire Director), Directors should be able to login with a premade account.
- 5. Login (Administrator), Admin should be able to login with a premade account.
- 6. Covid Metrics Input (Confirmed), director will be able to enter covid confirmed cases.
- 7. Covid Metrics Input (Recovered), director will be able to enter covid recovered.
- 8. Covid Metrics Input (Death), director will be able to enter covid deaths.
- 9. Fire Metrics Input (Acres Burned), director will be able to enter acres burned.
- 10. Covid Alert, County Health director can send alerts to their county.
- 11. Fire Alert, Fire Director can send an alert to their county.
- 12. Posting Items and Data (Administrator), items will need to be approved by the administrator before posting it online
- 13. Register to get alerts (Users), users can get alerts using their email.

### What is UNIQUE about our product?

It's a website that has an interactive map that when you click on one of the county areas, information about it, either covid or wildfire, will pop up. We have a toggle button that can switch the UI focus to either Covid or Wildfire, with Covid having a green-based theme and wildfire having a red-based theme to differentiate. A possible useful feature in our product is getting alert messages. If the general user wants, we

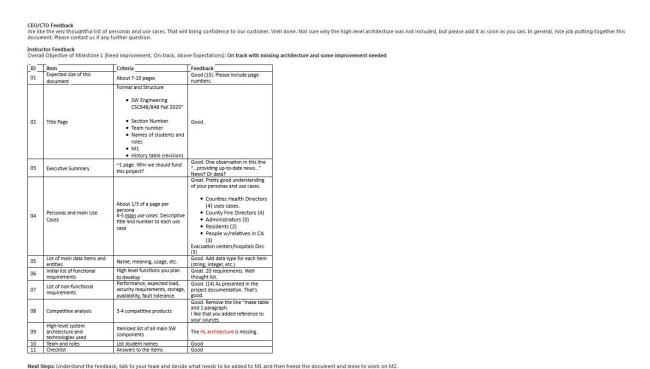
have an optional button in our navigation bar to get alerts by signing up with their email and selecting their county, they are not required to make an account or password in our website to receive alerts. Since our website isn't a phone app, it's not as convenient to receive alerts through our website, so email would be more easily accessible especially because most people have smartphones and a default email app available. For directors they have premade accounts and we made the tasks they need to do very simple with our UI. We focus our product on usability to make it simple for our users to read data related to wildfire and coronavirus. In a few clicks a user can see data related to his county.

URL to our product : <a href="http://coronafirus.team:3001/">http://coronafirus.team:3001/</a>

### 3) Milestone documents-M1-M4

Feedback Summary Report

M1



~Prof. Villar

#### Milestone 2 Feedback

#### Team 1 "Coronafirus"

CEO/CTO Feedback
Really good progress Coronafirus team. Great integration of your AFI. Please improve the way your prioritization is described, so it is easy to understand and implement. Your storyboards and mock-ups were a great addition to this phase. Also found the graphics added jomething that was missed on ML) provided a better understanding of what is being developed and alignment. Continue to focus on the main functions that our customers are asking for and we will be successful. Keep it up.

Instructor Feedback
Overall Objective of Milestone 2 [Need improvement, On track, Above Expectations]: On Track.

ID	Item	Criteria	Feedback	
00	Expected size of this document	About 20-25 pages	Good. 27 pages	
01	Functional Requirements - prioritized	Expand or repeat functional requirements from Milestone 1 into Milestone 2 w/ reference numbers (1-must have; 2 – desired; 3 – opportunistic)	On Track. 21 reqs/23 functions The priority table could be better presented. Perhaps all P1 on top and P3 at the bottom. SEARCH must be P1 fo normal users, please update that. I counted 7 P1s.	
02	UI Mockups and Storyboards (high level only)	All major use cases from M1. Format is very flexible, recommend hand drawings	On Track. Great UI mockups f your major cases.	
03	High level Architecture. Database Organization	Make sure the titles and var. names are in easy to understand plain English and consistent with data definitions. Media storage, APIs (if any), algorithm and SW tools	On Track. Good job organizing the DB, describing the media, search algorithm and API.	
04	High Level UML Diagrams	HL Class diagrams, and Component and deployment	On Track. Good UML deployment diagram and relational flow of your components.	
05	Key risks for your project at this time	Skills, schedule, technical teamwork, legal/content	On Track. Understanding of the milestone: Good approach to reduce risk. Schedule: Try to manage your time better before becomes a risk/issue.	
06	Project management	No more than half a page how you managed and plan to M2 and <u>future</u> tasks. <u>Must</u> start using Trello or similar tools for task management	On Track. Good thing you are using Discord. Good finding about Fridays' meetings.	

Next Steps: Review this feedback with your team, incorporate any to your document and freeze it. We will go over the vertical prototype during the class tomorrow. Also, we will be introducing M3, which you need to focus for the next week. ~Prof. Villar

### М3

#### CEO/CTO M3 Feedback

Thank you Coronafirus team. Congratulations on your comprehensive end to end application, it is looking great, 1 am really impressed with what I saw in our checkpoint. Great way to display the information and maps. Our customers will be delighted with it. Keep finalizing the details and few of the fixes and documentation. The release date is coming fast and I think you are ready.

Instructor M3 Feedback
Overall Objective of Milestone 3 [Need improvement, On track, Above Expectations]: Above Expectations

#### Specific M3 Feedback:

ID	Item	Criteria	Feedback
01	UI and functionality feedback (P1 functions only)	- Test main use cases - Check functionality and record issues/observe bugs - Check UI and usability - Check If UI is responsive to change of browser size - Performance in page/image rendering, search - Verify enough WWW pages are implemented and connected	On Track.
02	Functionality Check	Home page Search (including search field validation) Search results Filtering (dropdown menu search) Search Details and maps (if applicable) Allert Messaging/Registration /Administration (if applicable) Data Upload/Metrics Entry Dashboards (user/admin) Ul responsiveness (resize the browser) Performance (e.g. display of results list)	On Track and Above Expectations.  • Home page is really nice. • Search functionality is by filter and browsing the corresponding county via map. Great approach. • Alert Messaging needs some adjustments. • The approval for metrics is not configured. • Metrics entry is okay • Registration capability is okay • Dashboard okay, needs some fixes.

		of results list)	some fixes.
03	Brief review of code, github, database etc.	All key DB tables completed (users, items, messages, categories etc.) Search fully working Home page and search results integrated with back end Search field input validation to allow proper alphanumeric characters (letters and numbers) Search arguments persistent Be ready to show examples of code so coding style and code comments can be checked.	On Track.  • DBs was checked quickly and it seems that all tables are configured. • Search validation was not checked but seems find. • Code comments need to be added
04	Project status	1. Teamwork: 2. Risks 3. Coding practices 4. Usage of proper SE code management practices 5. How did you address site security and safe coding practices 6. Digital content 7. Other	On Track.  1. Make sure to address site security.
05	List of P1 features committed for delivery agreed	Team already reviewed and committed for final P1 list?	On Track. Make sure to commit to your P1 list and implement all those functions.

06 Overall Instructor Review	Git/Github organization Git/Github usage Code documented MVC/OO patterns followed up Frameworks Database organization Blobs being used? Adherence to best practices of security Efficiency Other	On Track. Keep working on documentation and application.
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Next Steps for M3: Review this feedback with your team. Your application is looking GREAT, just fix and finalize details. Keep working on it, implement all the pending functions (P1). Keep collaborating and finish strong. I am assuming you are finalizing already M4, be ready to start M5.

~Prof. Villar

### M4

CSC648/848 M4 T1 Feedback

CEO/CTO M4 Feedback
Coronafirus, you have demonstrated a great understanding of what the customer is looking for. Great progress and application. I am happy to see all the testing and QA plans. Please finalize details for the final demonstration and delivery.

Instructor M4 Feedback
Overall Objective of Milestone 4 [Need improvement, On track, Above Expectations]: On Track

### Specific M4 Feedback:

ID	Item	Criteria	Feedback
01	Objectives Achieved?	1. To make final commitment for functions to be delivered 2. To check that all required non-functional specs are satisfied or on track 3. To practice formal usability test plan development 4. To practice formal QA 5. To practice code review 6. Ensure basic practices of secure SE are applied 7. Ensure effective teamwork 8. Ensure software development is effective.	On Track. Overall a good document.

02	Document delivered (PDF)	1. Product summary  (~1/2 p) 2. Usability test plan (~2 p) 3. QA test plan (~2 p) 4. Code Review (~2 p) 5. Self-check on best practices for security  (~1/2 p) 6. Self-check: Adherence to original Nonfunctional specs	On Track.  Good Summary. 13 itemized list, list of first priorities and special functions Good selection and plan for the UT and QA. Code Review comments, I agreed with them according with the sample code it was presented. Good security approach. Most of the Nonfunctional Specifications should be done by now. Those On-Track status should add a comment about when they will be done or plans.
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Next Steps for M4: Review this feedback with your team, incorporate to your document and freeze it. Finalize all the functionality and integration, you are on track. Be ready for M5 and finish strong.

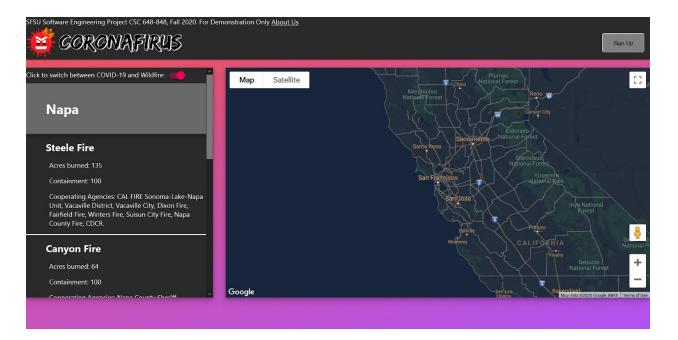
~Prof. Villar

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

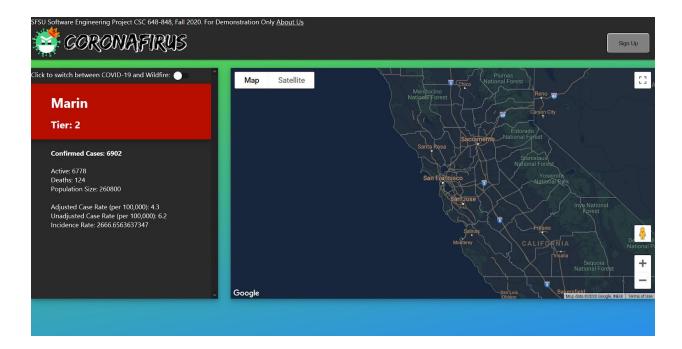
Section title: "Product Screen Shots" contains copies of all final screen shots of your final product(1 per page).

Home Page

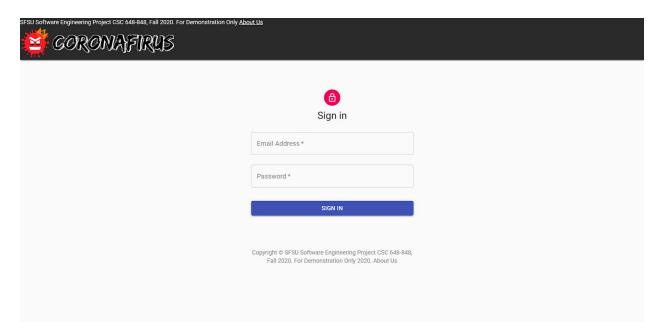
Fire



Covid

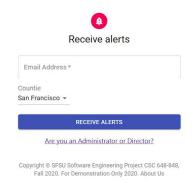


### Login Page



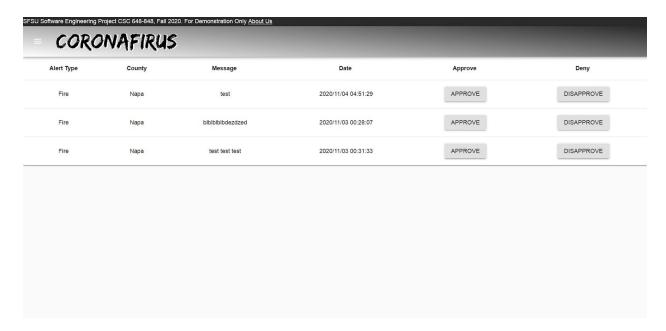
Alert Subscription Page



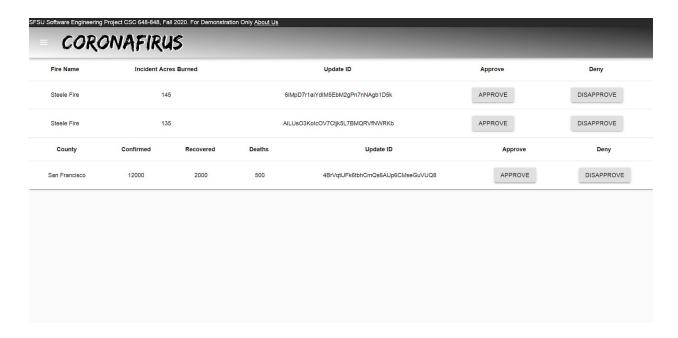


### Admin Pages

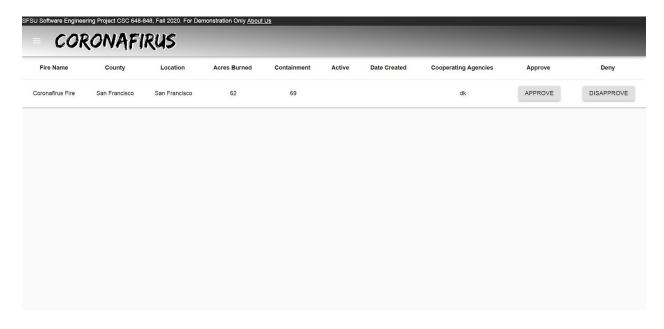
### Approve or Disapprove Alerts



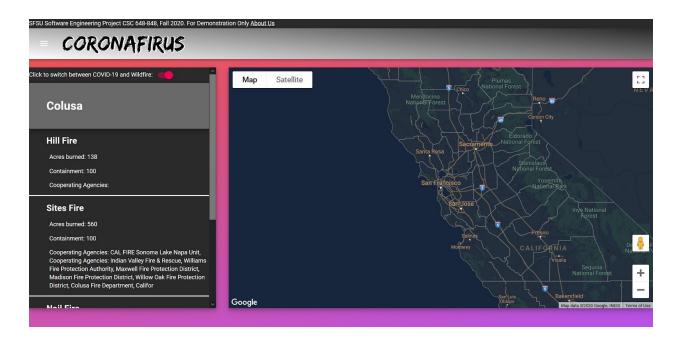
Approve or Disapprove Data Edit



### Approve or Disapprove Add entry

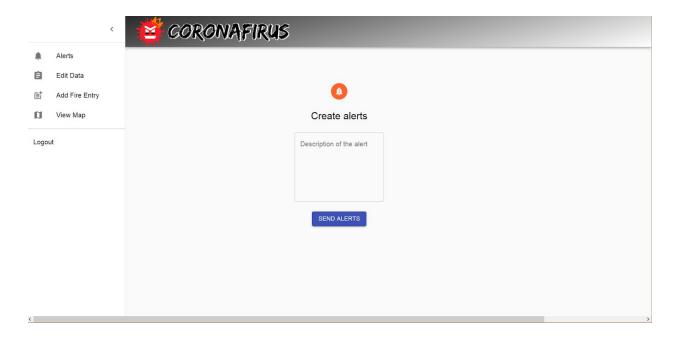


View Map

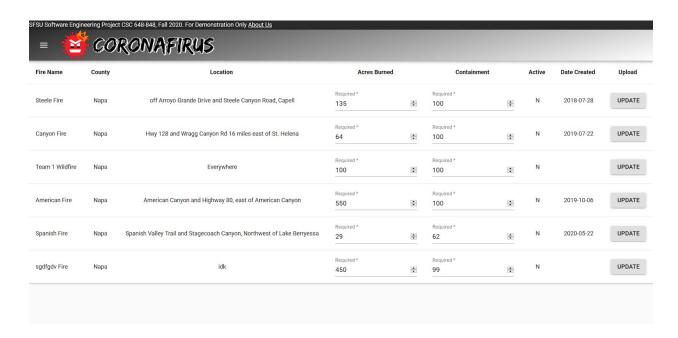


### Fire Director Pages

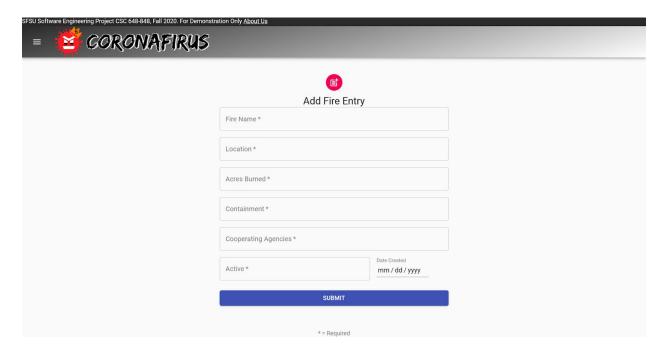
### **Alerts**



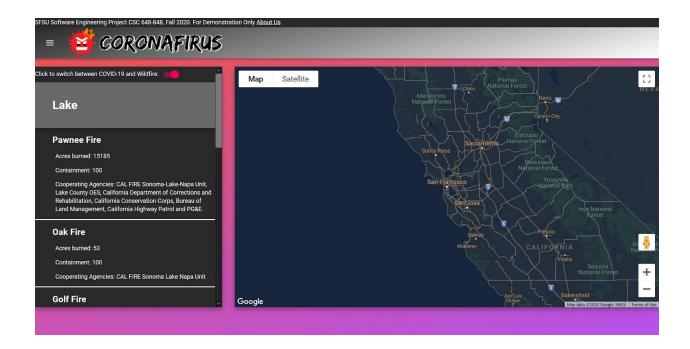
**Edit Data** 



### Add Fire Entry

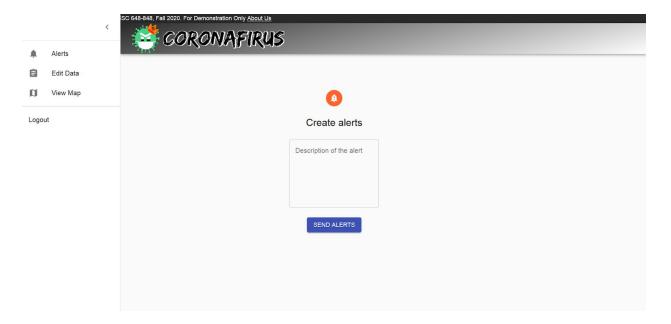


View Map

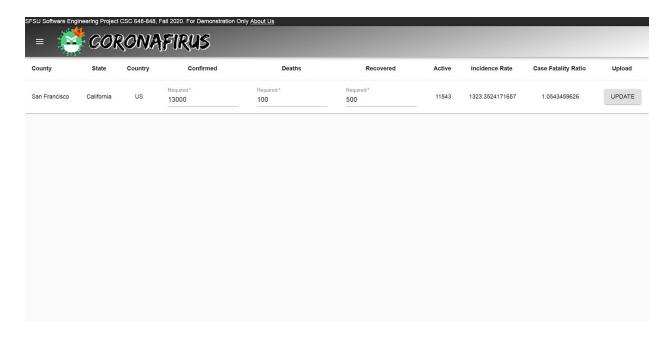


### **Covid Admin Pages**

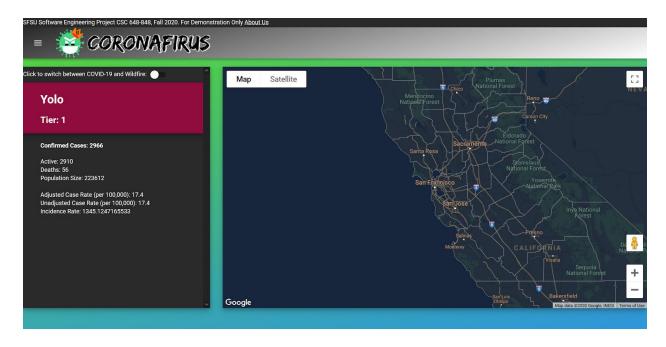
### Create Alerts Page



### Edit data Page



## View Map Page



About Page



### About Us

Our team consists of students coming together and using our diverse expertise to develop our products.

#### Vito Gano

#### Github Master/Project Manager

I'm a senior at SF State and I'm looking to graduate by Spring 2021. I was born in the Philippines but throughout most of my life, I have lived in the Bay Area. My favorite types of food are especially Japanese, Korean, and Vietnamese food. In my personal free time, I really like to play online games like World of Warcraft, League of Legends, or Valorant. When I graduate, I would like to pursue entering the CS workforce in any field, however if I were to pick a specific field in the CS industry, I would like to go into gaming as it is one of my favorite pastime hobbies and my favorite activity to do!

learn more..

#### Souhib Trabelsi

#### Github Master/Back End Developer

I'm a 4th-year student at Epitech Paris. I live in France in a town close to Paris. I like to go to the restaurant and discover new dishes. My favorite type of food is Arabic/Japanese. When I'm not at the restaurant, I like to play video games, especially league of legends. When I find the time, I like to improve my computer science skills while working on personal projects.

learn more...

#### **Thomas Abadines**

#### Team Lead/Front End Developer

I'm a Third Year Student at SF State majoring in Computer Science. I like to play instruments including but not limited to piano, electric bass, drums, guitar, and trumpet. If I'm not at school or work, I am learning something new about programming or music.

learn more..

#### Trung-Duong Pham-Vu

#### Front End Developer

I'm a 4th year student at SF state, majoring in Computer Science. I enjoy reading, video games and just watching interesting youtube videos. After graduating, I hope to make my current internship into a full time job.

learn more..

### Amily Wu

#### Project Manager Assistant

I'm a 4th-year student at SF state. I tend to watch a lot of YouTube content. My other pastimes I tend to see myself doing include playing rhythm games, reading translated novels or comics, sometimes doodling. Since the Covid pandemic, I rarely find myself going outside, exploring, and doing hangouts.

learn more...

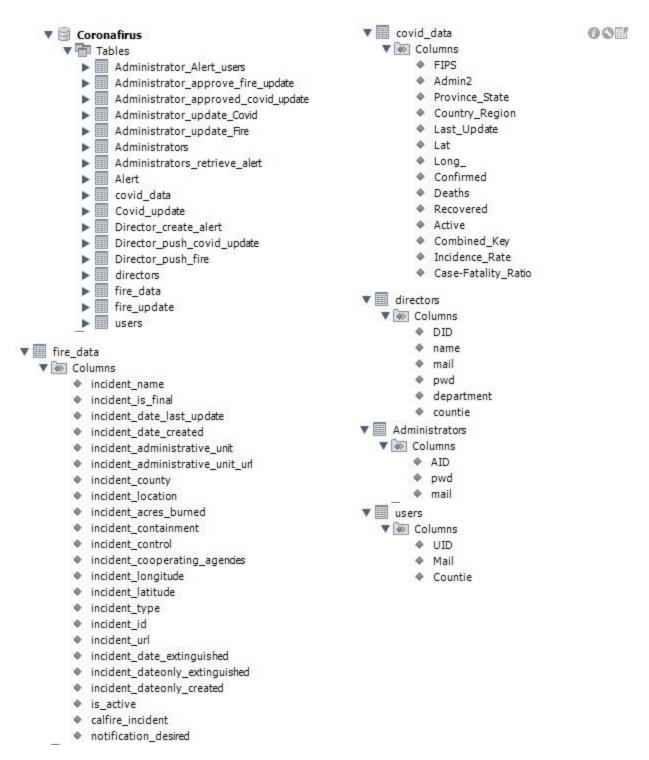
#### Junhao Zhai

#### Back End Developer

I am a computer science Senior Student 4th-year student at SF state. My main hobbies focus on MMORPG and animations. In the process of my learning programming, the one I came into contact with most was java. So for me, I think my Java ability is the best. In addition to Java, I have also learned C language, so my second best language is C. After I started learning artificial intelligence, python also needed attention. So my mastery of python is about 30%.

learn more...

### 5) Screenshots of keyDB tables (1-2 pages)



6) Google analytics plot for your WWW site or plugins or API used (1 page)

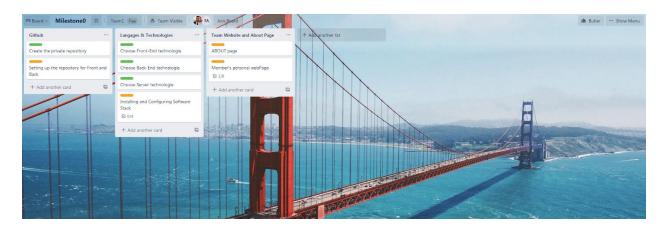
### No analytics

We used google maps API to display the map with data inside a map

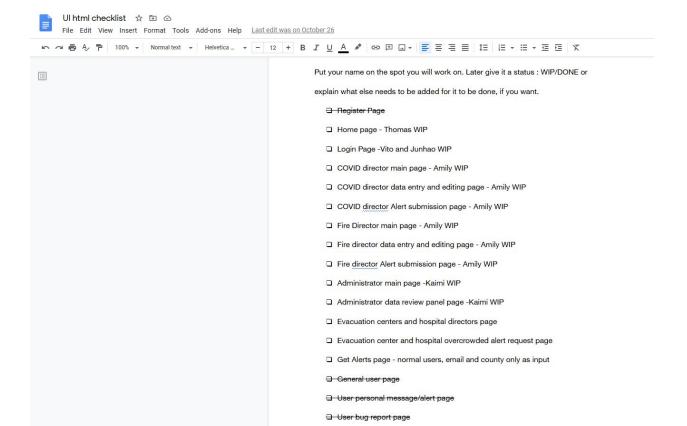
We retrieved the data from these websites

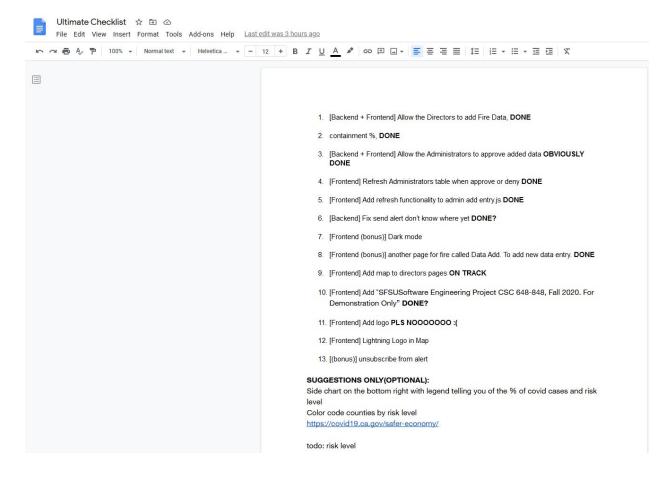
https://github.com/CSSEGISandData/COVID-19/tree/master/csse\_covid\_19\_data https://www.fire.ca.gov/incidents/

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

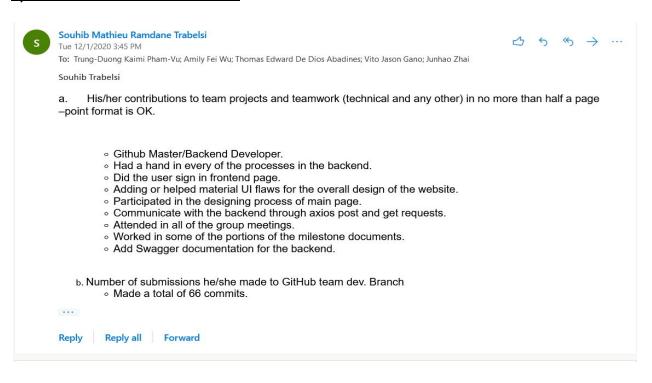








### 8)Team member contributions











To: Vito Jason Gano; Trung-Duong Kaimi Pham-Vu; Amily Fei Wu; Souhib Mathieu Ramdane Trabelsi; Junhao Zhai

#### Thomas Abadines

- a. His/her contributions to team projects and teamwork (technical and any other) in no more than half a page –point format is OK.
  - Team Lead/Frontend Lead
  - o Created the home page/Map page.
  - · Helped smooth out UX for the website.
  - · Helped create color scheme and theme for the site.
  - o Implemented frontend interaction with Google Maps API, Ca.gov data API
  - o Communicate with the backend through axios post and get requests.
  - · Attended in all of the group meetings.
  - Worked in some of the portions of the milestone documents
  - Acted as point of contact between Team01 and the class CEO/CTO
  - b. Number of submissions he/she made to GitHub team dev. Branch
    - o Made a total of 24 commits, with additions to other commits via LiveShare

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Reply

Reply all Forward











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To: Trung-Duong Kaimi Pham-Vu; Souhib Mathieu Ramdane Trabelsi; Thomas Edward De Dios Abadines; Vito Jason Gano; Junhao Zhai

### Amily Wu

- a. His/her contributions to team projects and teamwork (technical and any other) in no more than half a page
   –point format is OK.
  - o Project Manager Assistant/Document Master/Frontend Developer
  - · Had a hand in most of the processes in the frontend
  - Did the authentication and other functionalities for logging in and also logging out
  - Used react-router-dom for directing/redirecting to different pages as well as constructing some of the pages and restricting access to certain pages.
  - $\circ\,$  Set up the redux store for easier access, instead of passing values in as props
  - · Adding or helped in fixing some of the CSS and material UI flaws for the overall design of the website
  - o Participated in the designing process of our team's logo
  - o Communicate with the backend to do frontend stuff that requires the backend's help
  - Attended in all of the group meetings
  - o Worked in some of the portions of the milestone documents and reviewed/checked some documents
- b. Number of submissions he/she made to GitHub team dev. Branch
  - Made a total of 53 commits





To: Trung-Duong Kaimi Pham-Vu; Amily Fei Wu; Souhib Mathieu Ramdane Trabelsi; Thomas Edward De Dios Abadines; Junhao Zhai

- a. His/her contributions to team projects and teamwork (technical and any other) in no more than half a page —point format is OK.
  - Project Manager/GitHub Master/Frontend Developer
  - Managed and coordinated the team's schedule for meetings.
  - Helped work of the graphical design of the tables utilizing Material UI as well as worked on the CSS aspect of the tables/overall websites.
  - Helped formulated the UML Component/Class Diagram for the project
  - Checked in with teammates to ensure that they are okay and to be the go-to person for resolving personal/technical issues.
  - Helped with trying to obtain/send data from the databases that were implemented from the backend.
  - o Participated in the making of the Fire Director, Health Director, and the Admin Page.
  - Helped start on the Log In Page.
  - · Attended in all the group meetings
  - Worked in some of the portions of the milestone documents and reviewed/checked some documents
- b. Number of submissions he/she made to GitHub team dev. Branch
  - o Made a total of 26 commits under Vito Gano plus 2 under vgano1 to the Master Branch

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Reply Reply all Forward



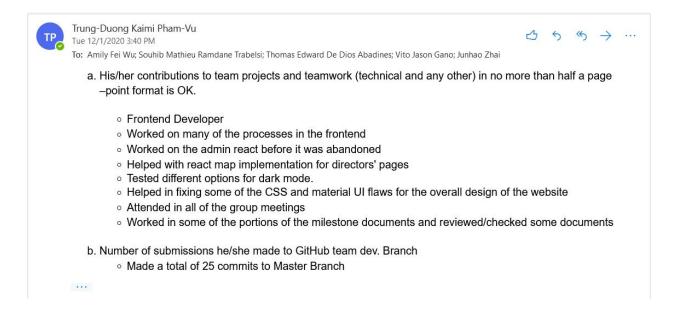
#### Junhao Zhai

Tue 12/1/2020 5:15 PM



To: Vito Jason Gano; Trung-Duong Kaimi Pham-Vu; Amily Fei Wu; Souhib Mathieu Ramdane Trabelsi; Thomas Edward De Dios Abadines

- a. His/her contributions to team projects and teamwork (technical and any other) in no more than half a page –point format is OK.
  - Project Backend Database developer/ database info tracer
  - o Helped with setting up and improving details of UML
  - Helped work the graphical design of the tables utilizing Material UI as well as worked on the CSS aspect of the tables/overall websites.
  - o Helped formulated the UML Component/Class Diagram for the project
  - Checked in with teammates to ensure that they are okay and to be the go-to person for resolving personal/technical issues.
  - o Helped with trying to obtain/send data from the databases that were implemented from the backend.
  - o Participated in the making of the Fire Director, Health Director, and the Admin Page.
  - o Helped start on the Log In Page.
  - Attended in all the group meetings
  - o Worked in some of the portions of the milestone documents and reviewed/checked some documents
  - b. Number of submissions he/she made to GitHub team dev. Branch
    - o Made a total of 26 commits under Vito Gano plus 2 under vgano1 to the Master Branch



### 9) Post analysis-lessons learned

- Working in a team (especially debugging with the team together using LiveShare to see the issue), LiveShare was a very helpful tool to use.
- Meetings twice a week greatly helped with keeping base with everyone's progress. The durations of the meetings were about 4-6 hours each.
- We learned how to build a React app from scratch using the material UI component library.
- We learned how to create a Flask API from scratch using Blueprint architecture to split routes into different python modules.
- We learned how to document and create a MySQL database.
- We learned which form of organization method (Agile) worked best for our group.
- We learned how to deploy an entire architecture composed of a React frontend app, a Flask backend API and a MySQL database on AWS services.
- We learned how to split tasks using Trello organization tool.

- Split work in branches on Github
- We acquired knowledge on how to build backend API with lightweight Flask framework. We saw how an API can retrieve data from HTTP requests and process it in that way, we send back information to the frontend application.
- We learned how to improve database ability as long with more user desired function
- We learned how to connect our React frontend app to another API through HTTP requests with Axios library. We've seen how to pass data through body parameters when making GET and POST requests
- We learned what are the different tools to document a backend API and we
   learned how to implement swagger to describe the routes of our Flask API
- Our Team used several means to communicate with each other while working on the project: Discord (mainly for voice chat, sharing screens), email (sharing feedback and answers from boss), Trello (for organizing tasks), Zoom (breakout sessions) and Whatsapp (for phone communication and announcements). This helped us stay organized and allowed us to swiftly address any concerns about the project.