CSC 648/848 SW Engineering Fall 2020 SurgeHut

Section 02

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Milestone 5

Documentation	Date	CTO/CEO Feedback	Revision
& Version	Submitted		Date
Milestone 5, Version 1	12/1/2020		

PRODUCT SUMMARY

In order to find information regarding the two large scale events that California had to deal with, people had to check a wide variety of sources to find the pertinent information. However, with SurgeHut the entire process can be streamlined and expedited. By providing a central platform where California residents can both access and update information (with proper verification), a significant amount of time would be saved and the users would get a very convenient, streamlined interface to work with.

Name of App:

SurgeHut

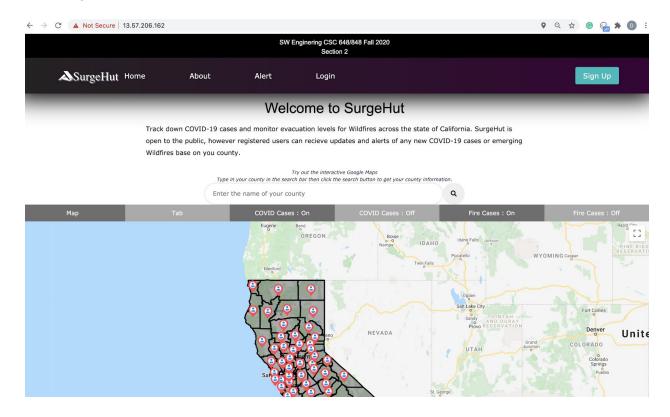
Functions:

- Google Map interaction (unique feature)
 - tracks covid cases and wildfire evacuation levels
 - Zooms in and out
 - Hold & drag map
- Google Analytics implementation that monitors traffic and location
- User registration and login.
- Dashboards for registered users, a public health official and fire director, and administration users
- Ability to navigate between pages.
- A notification system for alerts on COVID and wildfires for registered users and non-registered users.
- Built-Mailbox system for registered users to receive a message from admin

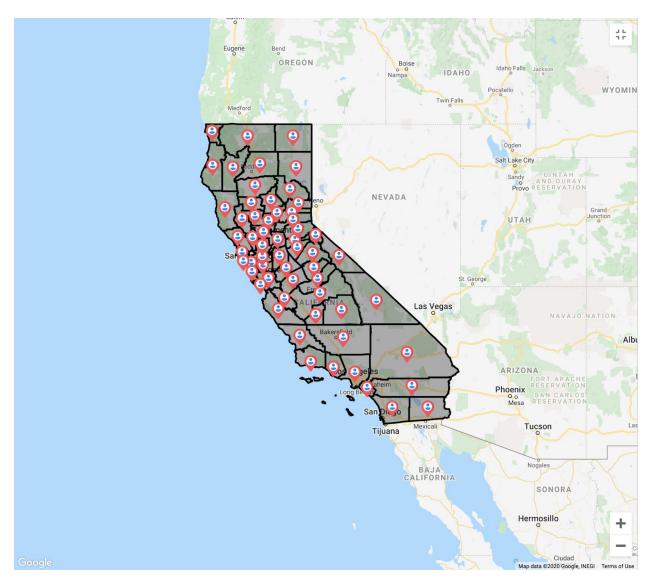
MILESTONE DOCUMENTS: M1-M4

SCREENSHOT OF FINAL PRODUCT

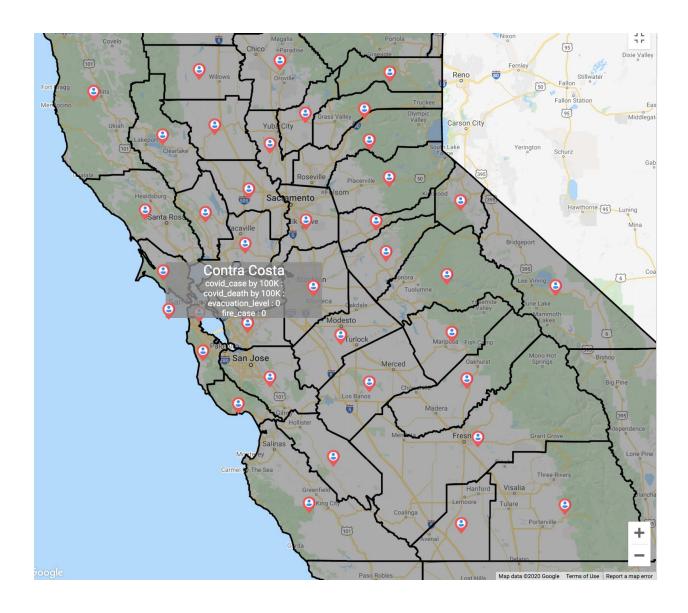
Homepage



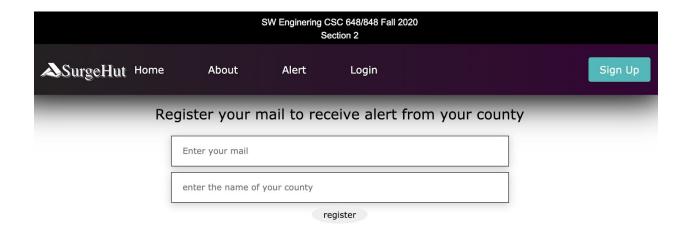
Full-screen map

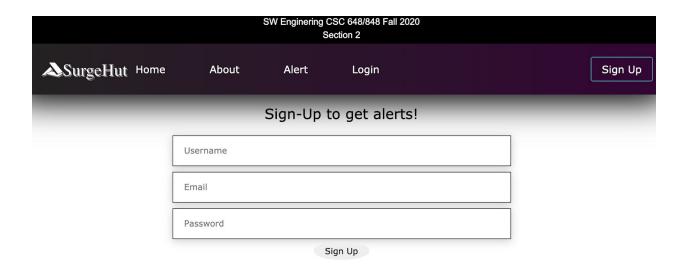


Zoom in & out



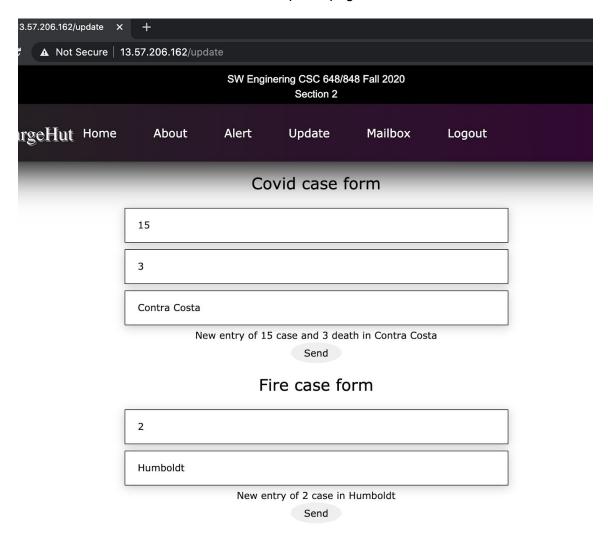
The same page for registered users and health/fire directors



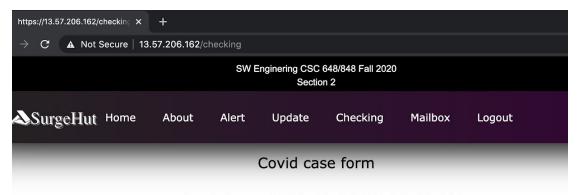




Health/fire directors enter metrics on the update page



Admin user approves update from checking the page



upload time: 2020-12-01T17:07:09.000

county: Contra Costa

Current number of case: 15

Current number of death: 3

Delete Validate

Fire case form

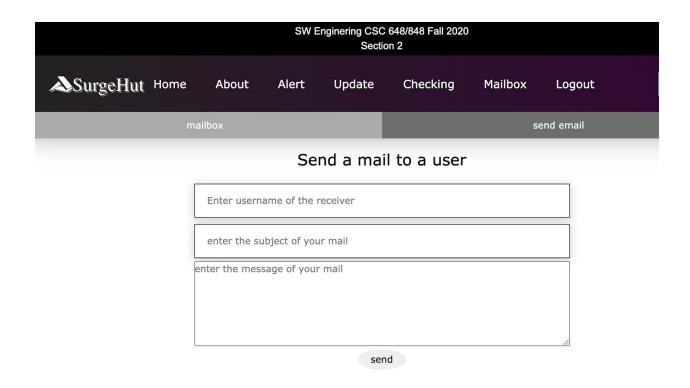
upload time: 2020-12-01T17:07:21.000

county: Humboldt

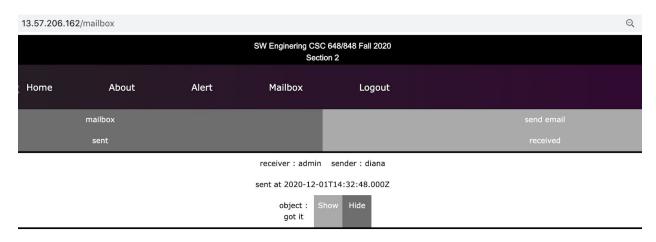
Current number of case: 2

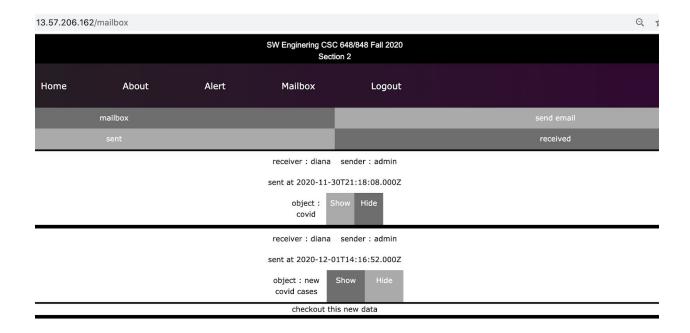
Delete Validate

MailBox System - send out mail



Mailbox sent and incoming messages

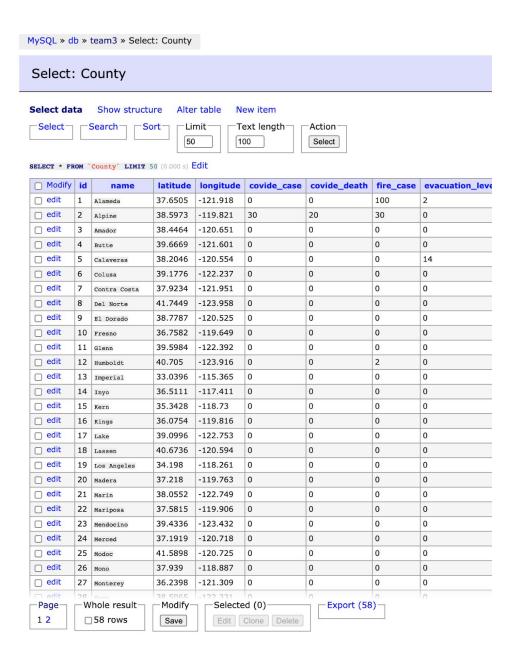




SCREENSHOTS OF KEY DATABASE (1-2 PAGES)

New users added to database with different access-level







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Plug-ins

Google Analytics

Google Analytics was implemented to follow user experience by tracking user page interaction while navigating through the site. Once the tracking code is implemented in the SurgeHut app, we are able to see real-time reports on whichever page we wish to track in the Google Analytics console. To collect data about user behavior we track the user's location based on the user's IP address. This will help us track the county they live in and provide information to the user base on their location.

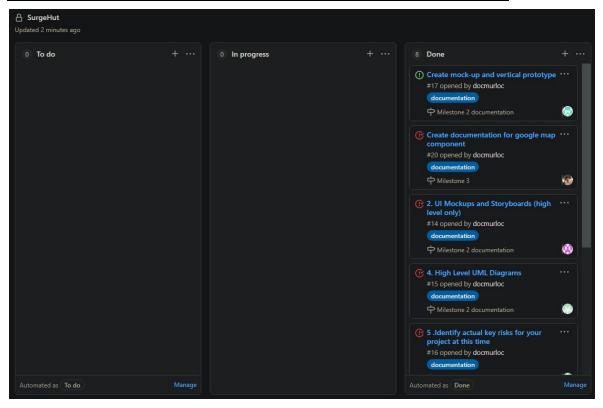
Google Maps

Google Maps is integrated into SurgeHut by implementing an API Javascript loader to track all 58 counties in the state of California. The SDK of the API allows the developer to personalize the map display data and to make it compatible with desktops and mobile devices. The user will be able to zoom in and out, hold and drag the map around, and the option of using full-screen. Markers are also implemented to pinpoint the user's location. Once the user hovers over the marker they will be able to see COVID-19 and Wildfire data.

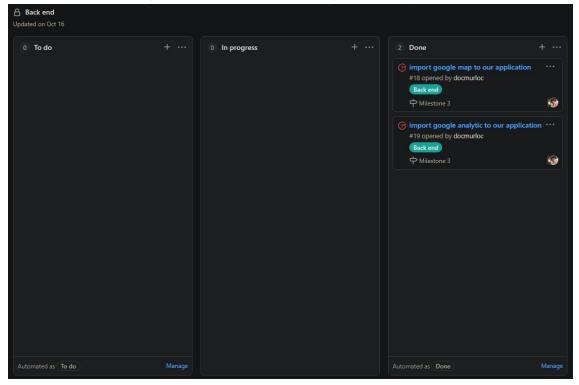
Nodemailer for MailBox System

Nodemailer is also implemented in the web app which allows users to send and receive messages through the SurgeHut app. This is implemented by a transporter object that is configured for the user, so they can send a message or receive a message they used to register.

SCREENSHOT OF TASK MANAGEMENT SYSTEM



Task management for overall SurgeHut project

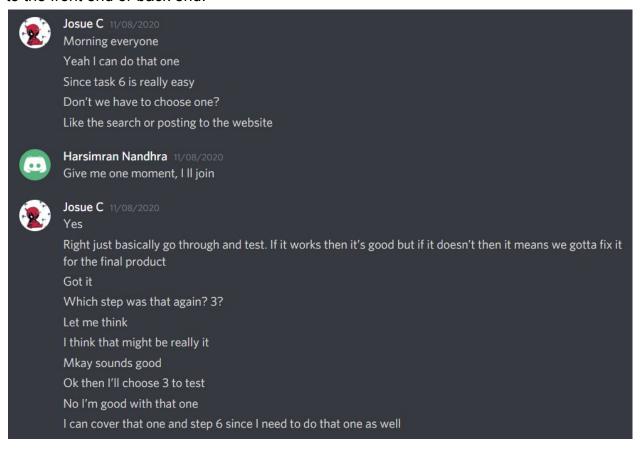


Tasks management for backend issues

TEAM MEMBER CONTRIBUTIONS

The majority of our communication on this project was done through Discord, where we have a channel that we can use to text chat to each other as well as voice channels where we can speak to one another. Below are a few screenshots of tasks or bugs that we were tasked with during our project.

A large majority of our code was done through Diana or Pierre, who had the most experience with our coding language and database. The rest of the team assisted with researching solutions for bugs in helping create and complete our Milestones. We did our best to make sure that the team was aware of the code that was created and used in the application as well as tried to make sure everyone was able to add content either to the front end or back end.





Diana Benavides 11/07/2020

@team 3 hey guys for part 4 i think someone has to send a piece of code of 2 pages max, so i can review it via-email. the code must be a feature we used for usability testing, so maybe the code for searching??

- a) By this time you should have chosen a coding style. In the re coding style you chose.
- Chose the code (substantial portion of it) related to the feature you used for QA and usability test. You need to submit an example of the code under review (or part of it = 2 pages or so MAX) for this function to be peer reviewed, and document this as follows:

 - ew should be performed by other group member(s) (1 review is

@Pierre Antoine i think you might have to send me the code and i can review it via-email



Pierre Antoine 11/29/2020

@Diana Benavides diana the bug is fix for the mail form

to give the acces right for a new user, you need to change their access level to 3 in the user database

I will be here tomorrow for the meeting

if you find another bug you can write it in the github issues. I will get a notification by mail

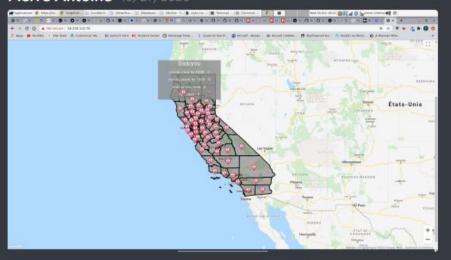


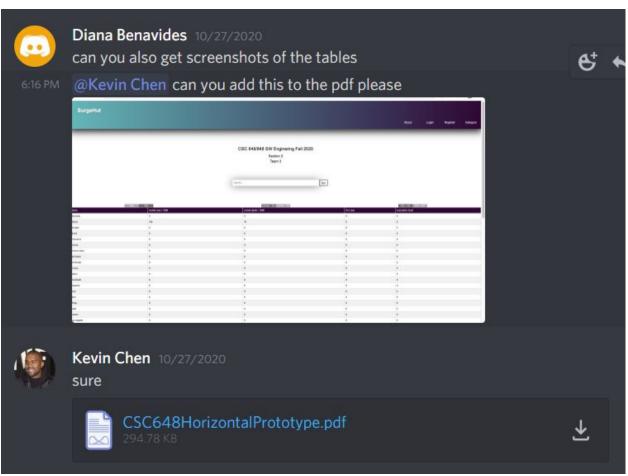
Kevin Chen 10/27/2020

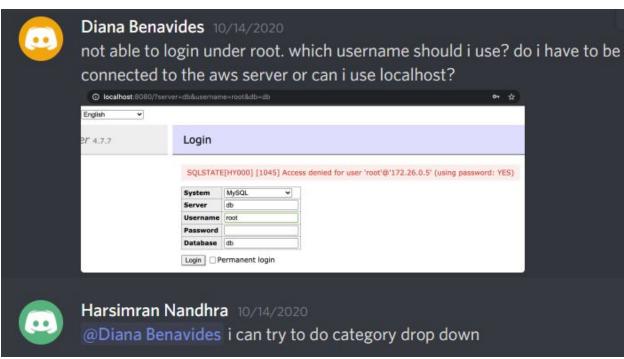
@Pierre Antoine I need just a screenshot of the maps for the prototype



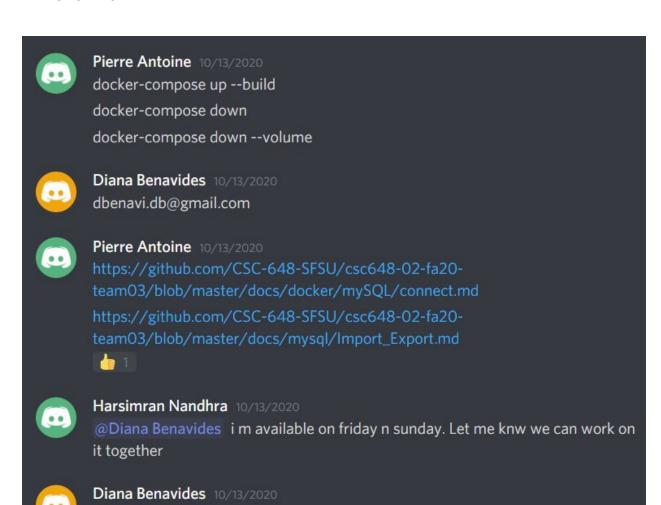
Pierre Antoine 10/27/2020







ok i will let you



POST ANALYSIS

The main challenges the group encountered during the development process were working around scheduling conflicts and figuring out documentation for the more unfamiliar parts of the code. Scheduling conflicts were often caused by fairly standard reasons, such as different class times, personal schedules and medical emergencies. Another reason for scheduling conflicts was due to time zone differences. Due to the nature of no longer having in person classes, group members were in different time zones. To alleviate this issue, we used a multitude of solutions. The original solution was a document in which each member wrote down their schedules: the intersection of available times was used to schedule the initial set of meetings. Later on, we moved to using Discord channels to schedule meetings and would have meetings without the full group, and fill in what we covered with the members who were unable to make them. A way we could have dealt with this more effectively was to be more willing to have meetings without the full group. While text communication is less effective than meetings, it ended up being sufficient to fill in the gaps from being unable to attend meetings, and having more meetings would have made the development process more straightforward. The second set of challenges was documentation for unfamiliar code. SurgeHut used a significant amount of Google API tools in it: Google Analytics, Google Maps and Google developer sites. Pierre was already very experienced with using these, but the rest of the group was initially very unfamiliar with most if not all of these. To deal with this issue we used the documentation and resources provided by Google. This problem would have used less time if we were more clear with our skills with various frameworks. Going into the project, we only had a cursory understanding of

each other's familiarity with the frameworks, and if this was more clear then a significant time could have been saved.