goal: identify the risk of covid-19 in boston.

there are many dashboards displaying various covid-19 data for regions all over the world although as the location becomes more fined tuned finding data can be more difficult or visualized poorly. it's hard to identify the risk that covid-19 has on an individual in their city or town without thorough research and data that's occasionally updated or information that only covers a wide area such as counties.

the goal for this project is to display the relavent data and information to a user so they can see the risk that covid-19 has on their local area. unlike global or national dashboards this would serve as a way to quickly glance and see relevant local information on the risk of the virus in the user's location and the risk that a user's social network may have on them.

utilizing people's location and contact data, information can be gathered on which areas of a city are more at risk and if the user knows anyone currently quarantined or tested positive.

3 main screens:

1. data

- overall status
  - Summarizes key data on the state of the virus such as:
    - active cases
    - # hospitalized
    - new cases
    - % positivity

based on the data a "grade" can be given to a location if the situation is improving or not

2. heatmap

a heatmap of the city could be created visualizing where people who have tested positive have been showing where more "risky" areas of the city are with the virus

3. network

a network can be created from contacts (and even location data) of the user where they can be notified if someone they know tests positive, or if a person the contact knows tests positive

throughout united states there is little concensus on how to report covid data. each state has its own dashboard although each vary in style, content, and accesibility.
https://www.webmd.com/lung/news/20200922/report-states-need-to-track-covid-data-better

on top of this only about 40% of essential data is reported and/or publicly available resulting in large gaps of knowledge for the public and organizations.

problems like this are only exacurbated down at the local level where, at best, people can find out the total number of cases in their county. major cities like new york and boston are lucky to have their own dashboards, but in the case of boston's dashboard its data is very lacking and difficult to read only reporting deaths, total, active, and recovered cases.

understanding the risk of covid in a local area means having the necesssary data and local information on possible super-spreader events or what percentage of cases large group facilities like nursing homes or homeless shelters.

although in order to have extensive information there has to be trust for those collecting and reporting it. between discrepencies and rerouting data there has been a breach of trust between national agencies and the american people.
see: covid-19 and the information catastrohpe

utilizing the location and contact data from people's smartphones and data from testing sites it would be possible to track and map which areas of a town or city serve more risk in catching the virus and surveying the risk one's own network may have on them.

as mentioned before due to all states having their own dashboard no two look the same and each use different visualization services with different levels of functionality.

in many cases this leads to a large variation in geographic data available and some of the information presented does little to describe current risk response effectiveness.

on july 21st the **resolve to save lives** released a report on the information presented in dashboards across the nation and found that of the 15 essential indicators identified:

2% of the exact indicators were reported

38% of indicators were reported in some way with many limitations

60% not reported in any way

this leaves large gaps in how we percieve the risk of covid-19, and if gaps like these appear on state and even the national level then they're only worse at the local level.

study: link to study

app prototype 1: marvelapp-link

contains rough sketches of the ui and screens and overall served as a way to visualize the concept on paper. significant changes would be made but this served as a way to get initial user testing in, and see what aspects of the functionality of interactions could be improved.

comments / feedback

- navigation feels clunky
- does the status page have the most relevant information to the user

app prototype 2: marvelapp-link

made changes to the navigation making it less clunky and mostly cleaned up the sketches making them visually cleaner

list of changes:

- consistent placement of navigation tabs
- editied style of network page
- added neighborhood information bar in the map
- added local coronavirus information in the status page

comments / feedback:

- neighborhoods menu: clearer classification?
- top menu: other place for convenience?
- how to set monitor location of home screen (realtime / specific location)?
- status screen: information panel can provide what kind of news that user cares about?

adobe xd prototype 1: xd-link

transfered sketches into adobe xd adding in interactions and made a few changes based on feedback from users. mostly this prototype is just going from sketches to a digital medium without too many alterations

list of changes:

- added overlay information onto neighborhood names on the map.
  - involved removing side button on map page

- added toggle switches to show user health info on the network page

- added toggle switch if a user wants to share their information

- added more local covid-19 news to the information panel

- added filter for the type of data shown
  (ex: total, 7-day averages, etc.)

comments / feedback:

- change overlay information into proper rollover interactions

- begin styling prototype

adobe xd prototype 2: link

took the barebones prototype and gave it color and styled it so it looks more like a webapp than a wireframe. few new additions were incorporated as this served to take what was already there and make it look nicer.

list of changes:

- properly added rollover functionality
- changed navigation bar location from the top to the left side uner a hamburger menu
- improved interactions in xd
- made prototype more visually engaging.

comments / feedback:

- edit style to have a more cohesive visual language

adobe xd final: link

While the design of the status and network pages looked nice overall it didn't fit the context the webapp would be used. the visuals felt to fun for something that is fairly serious. with that being said the visuals were changed where each page now feels more connected.

list of changes:

- visual changes to status and network pages.

- network page now shows location of peers / friends to show the risk your network has on you and where the people that pose a risk are

- fixed interaction issues on hovers

no major changes were done to the function or features these were, for the most part, aesthetic changes.