

MongoMongo Project Proposal

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Project Title : US Covid-19 Confirm Case Tracker

Project Summary :

Our project will distribute the number of covid-19 positive or death cases from the United States map. The size of the circles on the map will show the number of patients, and the exact number of patients will appear by clicking the circle shape on the map. Our primary database is public API from New York Times Covid-19 database. The goal of this project is to easily visualize the number of positive and death cases from each state on the US map and use the size of the circle to easily estimate and compare the number of cases between each state.

Description :

The main objective of this project is to construct a tool that displays the number of covid-19 positive cases and death cases on a map. Covid-19 data will be extracted from the New York Times database using its public API. The user will be asked to choose an year, a month, and the type of cases (positive cases or death cases).

Given the input from the user, the tool runs a SQL query to arrange the data and return the number of cases of chosen type in each state in the specific month. The number of cases will be displayed on the google map as circles (size proportional to the number of cases).

Usefulness :

People could quickly know which states have worse Covid-19 and which are not from US maps from Google Maps. Sometimes showing numbers won't help people rapidly estimate the number, so our team will use the size of the circles to distribute the number of cases. We will also let people choose which year and month they want to look at and only show data from that period. Also, we will allow people to select either show positive cases data or death cases data by giving a filter effect.

Realness :

Data from The New York Times, based on reports from state and local health agencies.

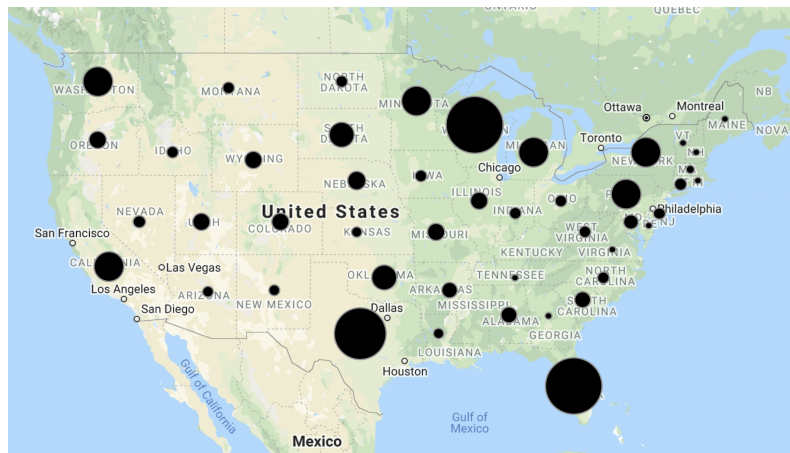
Functionality :

State-level covid case data is extracted from the New York Times as a raw CSV file. It has five columns: date (yyyy-mm-dd), state, FIPS (geographical code), positive cases (cumulative), deaths (cumulative). The data collection started on 2020-01-21 and is collected daily.

The user chooses the month and the year they want the covid data from, as well as the type of the case (confirmed positive cases or death cases). The website then returns the number of cases of chosen type in each state in the specific month.

The creative component is to display the number of cases on a map with size-proportional circles to indicate the number of cases in each state. Javascript will be used to achieve this.

A low fidelity UI mockup :



Project work distribution :

Yoonjae Hwang (yoonjae3) and Chanmin Kang (chanmin2) will be responsible for the backend development for this project. Yoonjae Hwang will be in charge of data extraction from the New York Times. Using the New York Times API, Covid-19 data for the last 3 years (from 2020) will be retrieved to our GitHub repository. Chanmin Kang will then use MySQL to organize and tabulate the extracted data. Finally, Jennifer Lim (jylim3) will be in charge of the frontend section. Using JavaScript and React, Jennifer will visualize the organized data on the United States Map.

It is important to acknowledge that even though our group distributed work, as a collaborative project, each of the team members will be responsible to guide and assist other team members' tasks. Our group will incorporate the VSCode Live Share tool to cooperate on this project.