Team Name:
Rona Team

Team Members:
- Caleb Cazacu
- Kevin Cheddar
- Dilimulati Diliyaer

Project Title:
Covid-19 Data Analyzer

Problem: What problem are we trying to solve?
People need accurate data about Covid-19 testing cases.
(We are trying to solve the problem of getting accurate Covid-19 testing/vaccination data to the users)

Motivation: Why is this a problem?
Covid-19 has greatly impacted the whole world. There is a lot of misinformation and this can help people get a better understanding of the accurate state of Covid-19 and wherever they live within the United States.

Features: When do we know that we have solved the problem?
- Users can type in a specific state/city and get the data for vaccination rate, cases, deaths, etc.
- Users can sort by
    - Number of cases
    - Vaccination Rate
    - Deaths
- Users can get the top 10 worst/best cities to live in based on category of choice

Data: (Public data set we will be using and the link to the public data set)
https://coronavirus.1point3acres.com/en
https://github.com/govex/COVID-19
(We are currently contacting the website stated above in order to get even more accurate data for our project.)

Tools: Programming languages or any tools/frameworks we will be using
C++, (possibly SFML library to help us achieve visualized interface).

Visuals: Wireframes/Sketches of the interface or the menu driven program

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Covid - 19 Data Analyzer
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1. User Information
2. Compare with your location
3. Search by States
4. Search by Cities
5. Best and Worst
6. Exit
=================
1. User Information

Please provide us the State/City you are living in.
State: XXX
City: XXX
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2. Compare with your location

(Please provide us your information first before requesting a comparison.)

Tell us any City or States and we will be able to compare its information with the location you provide for us from
option one.
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3. Search by States

Please tell us which State's data you would love to know
XXXX
=================
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4. Search by Cities

Please tell us which City's data you would love to know
XXXX
=================
5. Best and Worst

Tell us which category you would like to compare and we will provide you the top 10 city
1. Positive Cases
2. Deaths
3. Fatality rate
4. Vaccination count
5. Vaccination rate

1. Best
2. Wrost
=================
6. Exit

Thank you for accessing Covid-19 Data Analyzer, see you next time
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Strategy: Preliminary Data Structures/Algorithms we may want to implement
Implement the map data structure using a multidimensional map one for city and one for states: map< string(state), map <string(type of data), int> >

Implement binary search trees. One binary search tree has 50 nodes - one for each state and an array of data (cases, deaths, etc). Each state node links to the root of a state tree that contains all cities for that state.

Distribution of Responsibility and Roles: Who is responsible for what?

1. Data Structure Implementation (map)1 - Caleb
2. Data Structure Implementation (tree) 2 - Dilimulati
3. Gathering Data, creating interface, implementing program flow - Kevin