Team: CSAST

Analytics to implement in next sprint:

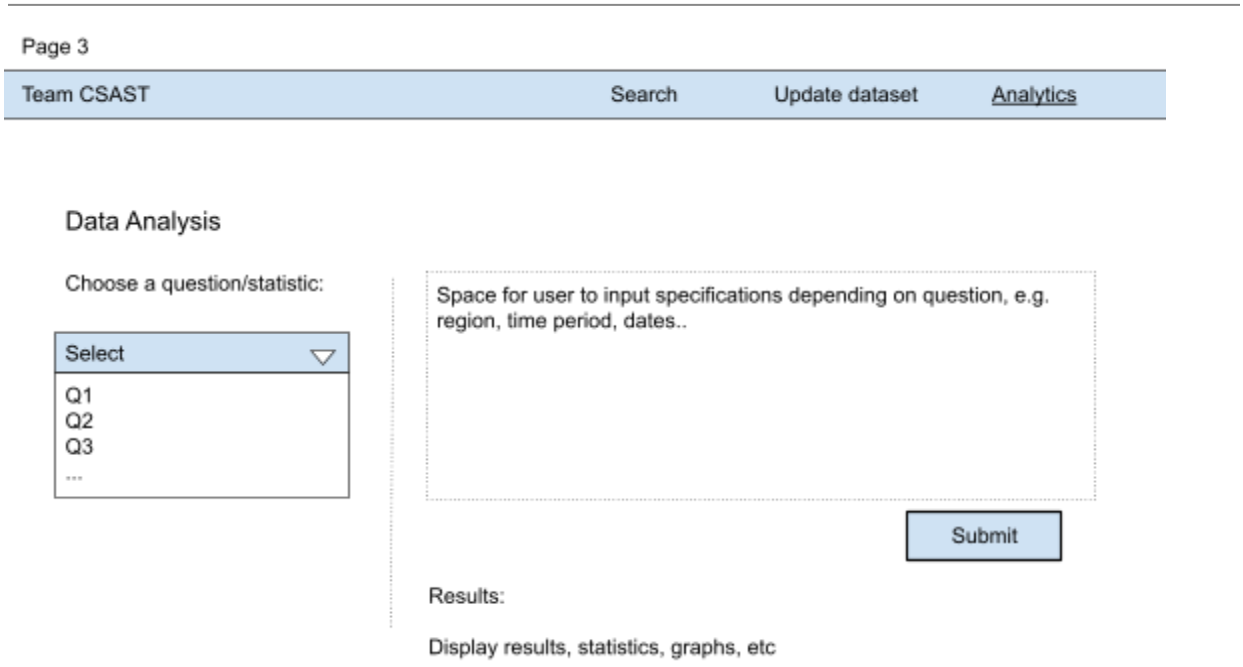
- **Analytic 1:** As a user, I want to be able to see a breakdown of the average confirmed cases, deaths, and recoveries for each country.

- **Analytic 2:** As a user, I want to be able to pick a country and see when a vaccine was released for the country, and also examine a graph of confirmed cases before and after the vaccine release.

- **Analytic 3:** As a user, I want to be able to pick a country and examine graphs of confirmed cases, deaths, and recoveries next to another graph of a different input country

- **Analytic 4:** As a user, I want to be able to pick a country and examine a graph of confirmed cases and deaths over time to see how deaths trailed confirmed cases.

GUI Design:


Page 3
Team CSAST
Search
Update dataset
Analytics
Data Analysis
Choose a question/statistic:
Select
Q1
Q2
Q3
...
Space for user to input specifications depending on question, e.g. region, time period, dates..
Submit
Results:
Display results, statistics, graphs, etc

Test Cases:

- **Analytic 1 Test Cases:** As a user, I want to be able to pick a country and see when a country locked down, and how stringent the lockdown was, and also examine the number of cases and deaths in a table or a graph.
    - Test: Users should choose a specific country and get back a message regarding the country's lockdown policy (date and strength) and choose whether to view the confirmed cases/deaths before, during and after as a table or a graph.

- **Analytic 2 Test Cases:** As a user, I want to be able to pick a country and see when a vaccine was released for the country, and also examine a graph of confirmed cases before and after the vaccine release (and table data).
    - Test: Users should choose a specific country and get back a message regarding the date of the vaccine release, and then they choose whether to view the confirmed cases/deaths before after as a table or a graph.

- **Analytic 3 Test Cases:** As a user, I want to be able to pick a country and examine graphs of confirmed cases, deaths, and recoveries next to another graph of a different input country
    - Test: Users should choose a specific country and a metric (confirmed cases, deaths, or recoveries), and two graphs should appear, one for each country. The user can also choose to display this information in a table.

- **Analytic 4 Test Cases:** As a user, I want to be able to pick a country and examine a graph of confirmed cases and deaths over time to see how deaths trailed confirmed cases.
    - Test: Users should choose a specific country and a graph would appear with the confirmed cases over time overlaid with deaths over time.

Completed last sprint:

Front-End

1. Navigation Bar (bootstrap) (Alex, Sabrina)
    - Switch between Search and Update pages
2. Dropdown menu (Sabrina)
    - Shows selected function (insert, delete, or update)
3. Insert (Steven)
    - Prompt for new info
4. Delete (Alex)
    - Search by Sno
5. Update (Steven)
    - Search by Sno
    - Prompt for new info

Back-end

6. Insert function (Thomas)
    - Update internal array
7. Update function (Thomas)
    - Update internal array
8. Delete function (Thomas)
    - Update internal array
9. Backup function (Caleb)
    - Save internal array as csv
10. Import function (Caleb)
    - Load previous saved csv into internal array

To-Do Next Sprint

Front-end

1. Create new analytics page (Sabrina, Alex, Steven)
    - Navbar icon
    - Dropdown menu
        - Display user input based on selection
    - Submit button displays results
2. Create Graphs/visuals for analytics (Sabrina, Alex, Steven)
    - Look into **d3.js** -- <script src="https://d3js.org/d3.v6.min.js"></script>
    - Analytic 1: output lockdown details, graph/table for confirmed cases/deaths in relation to lockdown period
    - Analytic 2:output date of vaccine release, confirmed cases/deaths in graph in relation to date of vaccine release
    - Analytic 3: Output two graphs. One is the country selected and one is the world graph displayed over time.
    - Analytic 4: Have a graph displaying deaths and confirmed cases, allowing the user to see how deaths trailed the confirmed cases.
3. Send info to backend to display

Back-end

1. Research each country in the csv file and store the following information in another csv file with the following headers: sno,country,vaxName,vaxDate,lockdownDate,lockdownStrength (Thomas)
2. Analytic 1 (Thomas)
    - Receive post of country user wants
    - Send lockdown date and strength back to client
    - Search for all data before lockdown in that country and store in array
    - Search for all data during lockdown in that country and store in array
    - Search for all data after lockdown in that country and store in array
    - Send array data to client in JSON format

3. Analytic 2 (Caleb)
    - Receive post of country user wants
    - Send vax name and date back to client
    - Average for all data before vaccine release in that country and store in array
    - Average for all data after vaccine release in that country and store in array
    - Send array data and average data to client in JSON format

4. Analytic 3 (Thomas)
    - Receive post of two countries user wants
    - Search for all data in those countries and store in array
    - Aggregate along the date
    - Send array data to client in JSON format

- Analytic 4 (Caleb)
    - Do a search for cases and deaths for a specific country
    - Send back json with cases, deaths, specific dates