Project: VAST 2010 MC2: Characterization of Pandemic Spread

Bi-weekly Report-1

Team Members:

Sindhu Sree Aita

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Completed Tasks:

Sindhu Sree Aita Vineethkrishna Vemireddy	Worked on the comments provided during the project proposal
Sucharith Reddy Desireddy Aishwarya Reddy Dwaram	Worked on pre-processing of the given datasets
Madhura Ganga Avinash Senthil Kumaran	Worked on UI Design

As per the comments provided during the project proposal,

1. Regarding the link establishment with different visualizations,
    - The line chart which displays death tolls with time, stacked bar graph, city-wise analysis of pandemic spread are put together in a single tab and all the three visualizations are varied based on city selected, gender selection.
    - There are two variations in the treemap, they are one with the data related to the dead and other with the hospitalised with different cities. So, users can select one from the dropdown.
    - The innovation visualization is regarding the majority of the symptoms and what combination of symptoms prevailing during the time period.
2. Regarding the interactions,
    - On hover, the city-wise analysis visualization gives the data about the number of cases and the deaths at that point of time.
    - In treemap, on hover the details about count of dead/hospitalized due to certain symptoms, city are available.
3. Regarding the questions MC1, MC2

- MC1- This question can be answered using the line chart visualization which analyzes city-wise pandemic spread and death tolls with time visualization.
- MC2- This question can be answered with the treemap visualization where the number of deaths/hospitalizations along with symptoms.

4. We decided to remove the global view virtualization and add a line chart and plot number of hospitalized and the dead each day for a city based on the selection criteria. This visualization will help researchers to analyse how the pandemic is affecting each day and the variation.
5. Regarding the innovative chart, we would like to analyse the symptoms, draw patterns if any and also analyze how it affects the gender and different age groups and plot them accordingly.

Data pre-processing: Before we implement the visualisations, data preprocessing has to be done because for few cases, two symptoms are combined without a space and are not separated by any separators. There are a few spelling mistakes. These things have been handled. All the syndromes have been analysed and for the same type of syndromes, a common alias has been assigned.

UI Design: Since there were several visualizations to represent the data, we started with the design of the application page. To create the user interface of our application, we worked on the layout of each visualization page of our application. Coding for the application page layout has been started. Bootstrap will be added to our web pages so that they are more responsive.

On the Dashboard or the homepage, we have designed to add a carousel for an overview of visualizations and a navigation tab to switch between the visualizations. Furthermore elements will be added where needed based on how appealing the application looks. Work on the UI coding part is in progress.

Current Tasks:

Sindhu Sree Aita	Working on visualization1
Sucharith Reddy Desireddy	Working on visualization4
Aishwarya Reddy Dwaram	Working on visualization2
Madhura Ganga	Working on visualization5
Vineethkrishna Vemireddy	Working on visualization3
Avinash Senthil Kumaran	Working on visualization5

Remaining Tasks for Project Completion:

Need to complete the visualizations which we are currently working on and should start the remaining visualizations. After the completion of all the visualizations, we should integrate them into our application.