SE Phase 2 - How this version improves on the older version

Implementing Collaborative Work - Sharing

Situation: The graph output that was shown on the web page did not have an option to share it with others. This would hinder people who want to use the system for group projects or collaboration. It could be of a huge advantage if collaborators could view the graphs and tables in real-time and could view the dataset as per their convenience.

Action: Hence we improvised the web page such that now it not only stores the graph outputs, but also can be shared in real-time via email, majorly helping the people who are working in a group so that they can convey their messages and thoughts in real-time. The user can give the email address of the receiver along with the message to be added to send via the mail. The mail will contain the following graph selected for sharing.

Allow support for more Graphs in the application

Situation: The previous version just supported one type of graph for visualization and this would hinder the usage and getting the analysis of the entire dataset. Having only a single graph type to display the output would limit the depiction of what the data actually is.

Action: In order to overcome this issue, we have added some more graphs that are helpful in understanding the data more effectively. Other graph types that we included are Line chart and Bar Chart, which will help gain more understanding of data.

Informative Graphs

Situation: The system only had details pertaining to the data only on the graph and no other details or information were provided along with the graph. It just had the graph along the x and y coordinates.

Action: The Data Visualization was done to visualize data into a simpler and understandable form. But We added a lot more measures of central tendency, such as Mean, Median, Mode and Standard Deviation, which will be helpful for the user to understand the nature of the data even more accurately. The features were added for both the selected labels X and Y and hence, the user can get the accurate number along with the visual graph.

Implementing Users and Authenticating them on module

Situation: The project did not have any method to authenticate the users. The roadmap in the project included creating a user database and storing their graphs in the database.

Action: Thus we implemented the authentication in which it stores the details using the pairwise username and password which is used throughout a session. Currently, this feature is stored in

the file itself. We can use a database to keep track of all the usernames and encode the passwords for authentication.

Add other details in hover of the graph

Situation: The system didn't have any other feature to view information about other columns apart from the X and Y axis and this would narrow down the information from the dataset and this will hinder the work of the user to get all information.

Action: In the project, we have different parameters from the dataset which can be taken into consideration apart from just the X and Y labels. We have added a filter drop down which will show the columns of the dataset and the user can select them. On selecting the dropdown item, that information will be shown on the graph on hovering of the mouse. This will help the user get valuable information from other columns too.

Enhancement of Table tab with Dynamic Rows

Situation: The current table of the dataset has only filter options but has a fixed number of rows on a particular page. This would be discouraging if the users want to modify the number of rows on a page.

Action: We extended this concept to give a dynamic view of the table by letting the user choose how many rows they want to see on the page. We also gave a page count upto which the user wants to see the data on the table, so that they are not overwhelmed with all data at once and can even check the data according to their wish by putting the value of number of rows on a particular page.