

Diagram Rationale

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Use Case Diagram: This diagram shows the user's interaction with our system and the cases that we provide the user with. Upon opening the application the user is presented with a loading screen before the main options are presented. The user then chooses the .csv file they wish to analyze data for and the file is verified. Errors are either ignored or fixed in this step pertaining to the .csv file loaded in. Once the user is happy with the data, they are brought to the analyze screen. Here, they can visualize the data in a personalized way with expanding tabs for information, graphs that can be filtered for certain data, and modifiable graphs by Author or Type of data.

UML Class Diagram: The classes we chose to use for our application mainly pertain to the three steps of our application as the user goes through it; load, verify, and analyze. After being loaded in, the data is assembled into our distinct DTO objects from the .csv files. Once the data is verified, it can be analyzed by the user. The class diagrams shows how we modularized function in classes to multiple tasks to gather and display the data. First we populate the tree diagram with data and the combo boxes with years and graph names. After that is done we utilize our graph visualization classes to construct the plots to display.

Package Diagram: This diagram shows us the use of dependencies between our packages.