## Web Based User Interface Functionality

For the user to interact with our database, there will need to be a front end user interface (UI) which the user can use. For our applications, we will be going with a graphical user interface (GUI) with the idea that even a layman can easily use the application and view meaningful information. Our goal is to create a simple and straightforward design where the user gets a graph as an out that shows the change over a time of a particular paratameters, based on their input.

We will have different parameters based on the queries. When the user clicks on a particular query the parameters with respect to time will be displayed on the screen. The user would also have different dropdowns and filters based on the parameters mentioned earlier, like fare, location or even tip amount. These user specified parameters correspond to the queries we make and the graphs we then display to the user. We display the change in these parameters over time.

For example, for a query related to the effects of COVID-19 on the taxi industry, the user would click on a button for that query and it would show parameters focussing on the time period that was under the effects of COVID. This would include parameters, like total average customers per day, average passenger count, etc. From there, with a drop down checkbox, the user could add or delete parameters from the graph or “zoom out” and look at a further stretch of time. Basically, each query would correspond to a button push with certain parameters being displayed on the graph, and that graph could be further customized through user inputted filters.