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Project 1 Documentation

- Decided to use dataset of a mental health in tech survey
 - Survey was taken in 2014 and measures mental health within the tech field and work environment.
- From this dataset we applied 24 out of the 26 variables to our visualizations
- For cleaning the dataset we have to remove/merge a lot of information that was recorded that was unorganized
 - For instance, we had to change to all gender entries that said man to male or some of the ages for this survey were below 7 years old which does not make any sense to be in tech industry
 - Additionally we add a questionnaire explanation to our dataset that explains what each of the variable names mean.
- For our Shiny app
 - We have a ggplot method in which you can see barplots or dotplots based on the percentages of answers from our data.
 - For instance, if you want to see the percent of people that are from each state of our data, the percentage will be extremely useful.
 - To create the percentage part we used reactive() within the server.
 - To select which variables you want to view we have a drop down that lets you filter which variable you want to inspect, as well as the country and gender specifics.
 - We also have a USA map in our shiny app using leaflet.
 - Although you can only see answers that were submitted from the United States, this gives us a very clear visual of what kind of frequency we are getting in our data.
 - Lastly, we have our plotly tab in our shiny app
 - This shows a plot of our data based on the country with our explanatory variable being the age of respondents
 - Although most of the data points are from the United States, it's nice to see what kind of answers/conclusions we are able to make about the other countries.
 - From this page you can select which countries you want to add/remove just by clicking on the legend
 - Lastly, this page is extremely helpful because we are able to hover over the datapoints in which we observe the age, question response, and the corresponding country.
 - Our UI page puts all this together in which we can see the different tabpanels, graph outputs, table outputs, and selection menu for the user's choice.