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Assignment: Data Visualization Bingo

1. Define & give an example of a primary data source.
    a. A primary data source would be any data source that you collect on your own. An example would be sending a survey link to students at your college to collect data on how the students would respond to your questions.
2. Describe the relationship between the Represent and the Filter stage.
    a. When we get to the Represent stage, we may realize that we filtered too little or too much data, so we may need to go back to the Filter stage to fix that. Similarly, we may not fully know how much data we would need to omit, so going back to the Filter stage after getting to the Represent stage may clarify what scope of the data we will need.
3. I can describe what happens in the Mine stage.
    a. The mine stage is where we look for patterns and try to analyze the data that we acquired. Some basic statistical methods may be used to try and gain insight into our dataset.
4. List the advantages of mining before filtering data.
    a. Mining before filtering data ensures that we have all the data from our original raw dataset. If we filter before mining, there may be parts of the data that we accidentally omitted and will need to go through a process of recovering to the backup files before we can continue.
5. Describe the chart types represented in this acronym: CHRTS.
    a. Categorical
    b. Hierarchical
    c. Relational
    d. Temporal
    e. Spatial
6. I can describe what happens in the Filter stage.
    a. In the Filter stage, we filter out or omit information that we don't need to answer our questions. We should always create a backup of the raw data files before doing anything to the dataset, so we have the option to go back. We should keep the data we filter out in a separate dataset and document each step carefully.
7. Define & give an example of a secondary data source.
    a. A secondary data source would be raw data that we did not collect firsthand but got from someone else. This could be a dataset provided by someone online that we found. An example would be our Tableau training datasets.
8. This chart type shows individual parts that make up a whole.
    a. Pie chart
9. The purpose of visualization is…
    a. To communicate an analysis of datasets to gain insight and answer questions.
10. This chart type allows you to comprehend the relationship between data sets.
    a. Scatter plot
11. Describe the relationship between the Critique and Refine stage.
    a. In the Critique stage, we get feedback from our peers and our audience about how our visualization or our analysis could be improved. Then, in the Refine stage, we can use the feedback to further refine our data visualization.
12. This chart type allows you to compare values.
    a. Bar chart

13. Describe the relationship between the Represent and the Acquire stage.
    a. When we get to the Represent stage, we may realize that our data is faulty, or we don't have enough data, or the data we are using can't help us answer our questions. In that case, we would need to go back to the Acquire stage for more data to help us do data visualization well.
14. This stage is the linchpin of the data visualization process.
    a. The Acquire stage
15. Describe the relationship between the Represent and the Critique stage.
    a. In the Critique stage, we may get constructive criticism on how the representation of our results can be improved. In this case, we can go back to the Represent stage and fix our visualization based on the feedback we get in the Critique stage.