

1. A secondary source is information taken from primary sources. They usually analyze or provide additional details to primary sources. An example could be an article.
2. List the stages of visualizing data
  - a. Acquire
  - b. Parse
  - c. Filter
  - d. Mine
  - e. Represent
  - f. Refine
  - g. Interact
3. The advantage of mining before filtering is that you can figure out patterns and relationships before deciding which information is unnecessary to determine these relationships.
4. The critique stage is closely related to the refine stage because getting feedback helps you determine what needs to be fixed and what could be improved. This affects the refine stage where you fix all these problems.
5. List 4 basic statistics method for describing data
  - a. Average
  - b. Median
  - c. Minimum
  - d. Maximum
6. The represent stage visualizes your data so that a viewer can decide whether they understand the information you're trying to convey. This leads to the critique stage because other people can give feedback on whether your visualization is helpful or not.
7. The advantages of filtering before mining is that you can narrow down the data set before using statistical methods to discover patterns in the data. This is helpful if you have a really big dataset.
8. Bar chart
9. The filter stage allows you to determine the variables that are most useful to your dataset so that you can represent them in the represent stage.
10. The refine stage allows you to make changes to your dataset or visualization to better convey the information you're trying to convey.
11. A primary data source is information that is recorded as it is first experienced or discovered. An example is an autobiography.
12. The filter stage helps you select the variables in the dataset for your visualization. This could mean removing (but not deleting) some variables from your dataset.
13. The acquire stage requires you to find data for your visualization in the represent stage. Without the acquire stage, you could not do the represent stage.
14. Pie chart