

DataViz

In-class Assignment: Motivating Example

The purpose of this assignment is to examine some of the “motivations” for the data preparation and visualization choices in the Motivating Example.

Please answer the following questions. You are encouraged to work with a team. You may reference the project file, and you may google for additional insight.

File: code.r

1. Line 57: Why would anyone care if a structure is atomic or recursive? Is there any practical difference?
2. What is the difference between line 153 and lines 175 – 183.

File: BasicExplorationOfVariables.r

3. Lines 58-60: What is the difference between line 58 and line 59?
4. Why is `sapply` used in line 58, but `tapply` used in line 60? Was it necessary?

File: BasicPlots.r

5. Line 5: Why doesn't this work?

File: ggplots.r

6. Lines 22-24: Try the `color = sex`, without changing it to a factor. Does it work? Why or why not? If it does work, what does it do? Would this be a good choice for a visualization?
7. Select two examples of visualizations in this file. For each:
 - a. Describe what the visualization does
 - b. Make a change (to the color, the shape, or even the type of graph)
 - c. Discuss the value of your choice: Does it help to explore the data? Make a point? Tell a story? Is it an improvement over the original?