Introduction to Data Visualizations

This exercise asks to you collect data and create a data visualization that communicates that data graphically.

Step 1: Collect Data

At home, or wherever you are working, collect a set of quantitative (numerical) data. Consider various types of data, for example:

- How long does it take to get to a specific floor in the elevator vs. climbing the stairs based on multiple tries?
- What's the ratio of books to other stuff on your shelves?
- How much time do ducks spend foraging vs. just wandering around?

Think about the various processes that take time or require resources (e.g., how many almonds you eat in an hour, or the average time it takes to drink a bubbly water). Think about the items you have around you and what they are used for (e.g., what apps do you check on your phone in an hour). Quantitative data is all around you--every time you do something, check something, or observe something, you are generating data. And so are the things around you--e.g., stoplights, phones, dogs, and squirrels. Select an item or items around you (including yourself) and collect the data it generates.

Step 2: Create a Visualization

Once you have your data, draw a data visualization that represents your data. To pick the type of data visualization, go back to the Design chapter you read and review the visualization types. You can use any medium you want to create your visualization--pens, crayons, markers, or, if you are already familiar with creating visualizations digitally, use an app like Canva or Excel.

Step 3: Share your Visualization

If you draw your visualization, you can submit a picture taken with your phone. Include your name in the title. When you share your visualization, answer the following questions about it, along with the image:

- What does the data visualization show?
  Why did you pick that visualization format?

Step 4: Review and Comment

After sharing your work, use the Reply button below to comment on at least two of your peers' visualizations, addressing the following:

- Is it clear what the visualization represents?

- Is the type of visual appropriate for the data? Can you think of other types of visuals that might be useful?
- Does the design and color use make the visual easy to read?