The goal of visualization is to aid our understanding of data by leveraging the human visual system’s highly tuned ability to see patterns, spot trends, and identify outliers

* Well-designed visual representations can replace cognitive calculations with simple perceptual inferences and improve comprehension, memory, and decision making.
* By making data more accessible and appealing, visual representations may also help engage more diverse audiences in exploration and analysis.
* The challenge is to create effective and engaging visualizations that are appropriate to the data.

Creating a visualization requires a number of nuanced judgments.

* One must determine which questions to ask, identify the appropriate data, and select effective visual encodings to map data values to graphical features such as position, size, shape, and color.