📊 1. Why Data Types Matter

- **Key Point:** Understanding data types helps you design more effective visualizations.
- **Description:** The type of data you're working with determines how it should be presented to communicate insights clearly.

🧩 2. Two Basic Data Types

- **Categorical (Qualitative) Data:**
  - Describes qualities or categories (e.g., countries, industries, product names).
  - Best visualized using **bar charts, column charts, and pie charts**.
- **Numerical (Quantitative) Data:**
  - Represents measurable values (e.g., prices, scores, ages).
  - Best visualized using **line charts, histograms, scatterplots, box plots, and bubble charts**.

📐 3. Five Common Visualization Types

Each type serves a specific purpose depending on the data:

1. **Single-Value Visualizations**
   - Show one key metric (e.g., average score).
   - Simple and direct.
2. **Comparison Charts**
   - Compare two or more values.
   - Use bar, column, or line charts.
3. **Composition Charts**
   - Show parts of a whole (e.g., pie charts, stacked bars).
   - Useful for percentage breakdowns.
4. **Distribution Charts**
   - Show how data is spread or varies.
   - Use histograms or box plots.
5. **Relationship Charts**
   - Show correlations between variables.
   - Use scatterplots or bubble charts.

🔁 4. Some Charts Serve Multiple Purposes

- **Example:** A line chart can show either a **comparison** or a **distribution**, depending on the context and how the data is interpreted.

🧠 5. Always Start with the Data

- **Key Point:** Let the data guide your design choices.
- **Description:** Choose the visualization type based on what kind of data you have and what story you want to tell.