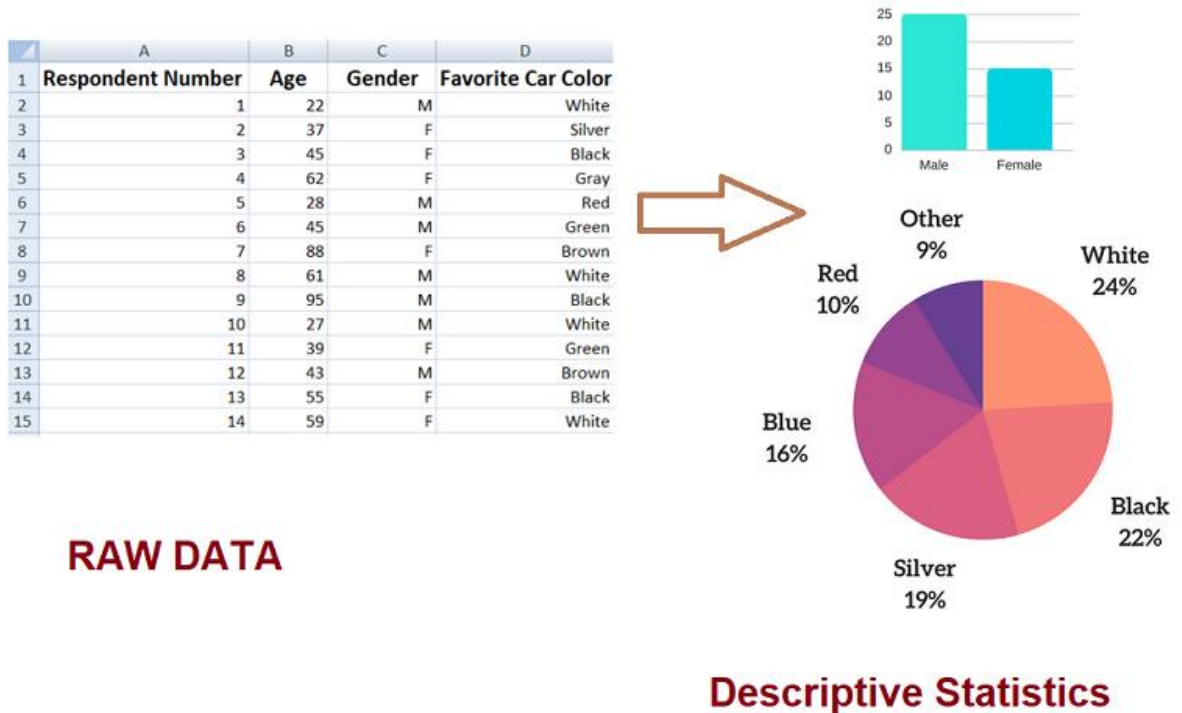


Unit I

Descriptive Statistics:

1. Scale Types: Descriptive statistics deal with summarizing and describing the characteristics of a dataset. One essential aspect of descriptive statistics is understanding the scale types of variables, which determines the appropriate statistical measures and visualizations to use. There are four main scale types:



Scale type:

- Nominal Scale: Variables with nominal scales represent categories or labels with no inherent order. Examples include gender (male/female), colors, or types of cars. For nominal data, you can use frequency counts and bar charts to visualize the distribution.
- Ordinal Scale: Variables with ordinal scales have categories with a natural order, but the differences between categories may not be equal. Examples include education levels (e.g., high school, college, graduate). Bar charts and stacked bar charts are commonly used to visualize ordinal data.
- Interval Scale: Variables with interval scales have ordered categories with equal intervals between them. However, the absence of a true zero point means that ratios between

values are not meaningful. Examples include temperature (measured in Celsius or Fahrenheit). Histograms and line charts are often used for interval data.

- Ratio Scale: Variables with ratio scales have ordered categories with equal intervals, and a true zero point exists, allowing meaningful ratios between values. Examples include weight, height, and income. Histograms, box plots, and scatter plots are common visualization choices for ratio data.

Univariate Analysis

