Statistical Data Types:

1. **Nominal Data:** This type of data represents categories or labels without any inherent order or ranking. Examples include gender, colors, types of fruits, or customer IDs. Nominal data can only be categorized, but you cannot perform mathematical operations like addition or subtraction on them.
2. **Ordinal Data:** Ordinal data have categories with a meaningful order or ranking, but the differences between the categories are not well-defined or equal. Examples include educational levels (e.g., high school, bachelor's degree, master's degree), star ratings (1 star, 2 stars, 3 stars), or survey response options (e.g., "strongly agree," "agree," "neutral," "disagree," "strongly disagree").
3. **Interval Data:** Interval data have meaningful order, and the differences between values are meaningful and consistent. However, they lack a true zero point and don't allow for ratios to be calculated. Common examples include temperature measured in Celsius or Fahrenheit, where 0°C or 0°F does not mean an absence of temperature.
4. **Ratio Data:** Ratio data possess all the characteristics of interval data but also have a true zero point, which allows for meaningful ratios to be calculated. Common examples include height, weight, age, income, and counts. Ratios like "twice as heavy" or "three times as tall" have valid meaning in this type of data.
5. **Continuous Data:** Continuous data are measurements that can take any value within a certain range, often including fractions or decimals. Examples include height, weight, temperature, and time. These values are typically obtained through measurement instruments and can be infinitely divided.
6. **Discrete Data:** Discrete data represent distinct, separate values that usually come from counting. They cannot take on any value within a range, only specific values. Examples include the number of students in a class, the number of cars in a parking lot, or the count of customer purchases.