Qualitative Data

Definition: Non-numerical data that describes qualities or categories. It is often descriptive and cannot be measured in numbers.

Examples:

- 1. Eye color (e.g., blue, green, brown)
- 2. Type of pet (e.g., cat, dog, bird)
- 3. Names of students
- 4. Vehicle types (e.g., sedan, SUV, truck)
- 5. Gender (e.g., male, female, non-binary)
- 6. Favorite programming language (e.g., Python, Java)
- 7. Types of cuisine (e.g., Italian, Chinese, Mexican)
- 8. Clothing sizes (e.g., small, medium, large)
- 9. Blood type (e.g., A, B, AB, O)
- 10. Preferred mode of transportation (e.g., car, bus, bicycle)

Quantitative Data

Definition: Numerical data that can be measured or counted. It represents quantities.

Examples:

- 1. Age of individuals
- 2. Number of pets owned
- 3. Weight of an object
- 4. Distance traveled in kilometers
- 5. Annual income in dollars
- 6. Temperature in Celsius
- 7. Number of books read in a year
- 8. Height of students in centimeters
- 9. Population of a city
- 10. Time taken to complete a task in seconds

Discrete Data

Definition: Countable numerical data that takes specific values and cannot have decimals.

Examples:

1. Number of pets owned

- 2. Number of students in a class
- 3. Number of cars in a parking lot
- 4. Number of siblings a person has
- 5. Number of goals scored in a match
- 6. Number of steps taken in a day
- 7. Number of pages in a book
- 8. Number of items sold in a store
- 9. Number of votes received by a candidate
- 10. Number of errors on a test

Continuous Data

Definition: Measurable numerical data that can take any value within a range and include decimals.

Examples:

- 1. Weight of an object (e.g., 65.5 kg)
- 2. Height of individuals (e.g., 170 cm)
- 3. Temperature (e.g., 22.3°C)
- 4. Distance traveled (e.g., 10.75 km)
- 5. Time taken to finish a race (e.g., 12.34 seconds)
- 6. Speed of a car (e.g., 80 km/h)
- 7. Blood pressure readings (e.g., 120/80 mmHg)
- 8. Volume of water used per day (e.g., 15 liters)
- 9. Annual rainfall in millimeters (e.g., 1200 mm)
- 10. Length of an object (e.g., 15.6 cm)

Nominal Data

Definition: Qualitative data with no inherent order or ranking among the categories.

Examples:

- 1. Types of fruit (e.g., apple, banana, orange)
- 2. Marital status (e.g., single, married, divorced)
- 3. Eye color (e.g., blue, green, brown)
- 4. Car brands (e.g., Toyota, Ford, BMW)
- 5. Nationality (e.g., Irish, American, Indian)
- 6. Types of beverages (e.g., tea, coffee, juice)

- 7. Blood type (e.g., A, B, AB, O)
- 8. Sports teams (e.g., Lakers, Yankees)
- 9. Programming languages (e.g., Python, JavaScript)
- 10. Types of flowers (e.g., rose, tulip)

Ordinal Data

Definition: Qualitative data with an inherent order or ranking among the categories but without consistent intervals between them.

Examples:

- 1. Education level (e.g., high school, bachelor's degree, master's degree)
- 2. Customer satisfaction ratings (e.g., very satisfied to very dissatisfied)
- 3. Movie ratings (e.g., 1 star to 5 stars)
- 4. Military ranks (e.g., private, sergeant, captain)
- 5. Class grades (e.g., A+, A-, B+)
- 6. Economic status levels (low income, middle income, high income)
- 7. Pain severity scale (mild, moderate, severe)
- 8. Hotel star ratings (1-star to 5-star hotels)
- 9. Priority levels for tasks (low priority to high priority)
- 10. Fitness levels in competitions (beginner to advanced)

Interval Data

Definition: Quantitative data with equal intervals between values but no true zero point.

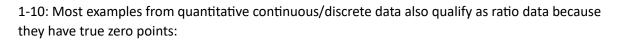
Examples:

- 1. Temperature in Celsius or Fahrenheit
- 2. Time on a clock or calendar year
- 3. IQ scores
- 4. SAT scores
- pH levels on the acidity scale
 6-10: These are less common; interval scales are primarily used for specific scientific or standardized measurements like those above.

Ratio Data

Definition: Quantitative data with equal intervals between values and a meaningful zero point.

Examples:



- Weight
- Height
- Income