

Types of Data

Data refers to information collected for analysis, research, or decision-making. Broadly, data can be classified into **Qualitative** and **Quantitative** types.

1. Qualitative Data

- **Definition:** Describes qualities or characteristics that cannot be measured numerically.
- **Nature:** Non-numerical, descriptive.
- **Examples:**
 - Eye color (blue, brown, green)
 - Gender (male, female, other)
 - Types of cuisine (Italian, Chinese, Mexican)
- **Usage:** Helps in understanding attributes, opinions, or categories.

2. Quantitative Data

- **Definition:** Represents information that can be measured and expressed in numbers.
- **Nature:** Numerical, measurable.
- **Examples:** Age, Height, Number of students in a class
- **Subtypes:**

a) Discrete Data

- **Definition:** Can take only specific, separate values (usually counts).
- **Examples:**
 - Number of students in a class (25, 30)
 - Number of cars in a parking lot (0, 1, 2...)

b) Continuous Data

- **Definition:** Can take any value within a given range (usually measurements).
- **Examples:**
 - Height of students (150.5 cm, 162.3 cm)
 - Temperature (36.6°C, 37.2°C)

Summary Table:

Type of Data	Nature	Examples
Qualitative Data	Non-numerical	Eye color, Gender, Cuisine
Quantitative Data	Numerical	Age, Height, Number of students
— Discrete	Countable	Students in a class, Cars

Type of Data	Nature	Examples
— Continuous	Measurable	Height, Temperature
