

# Measurement of Data

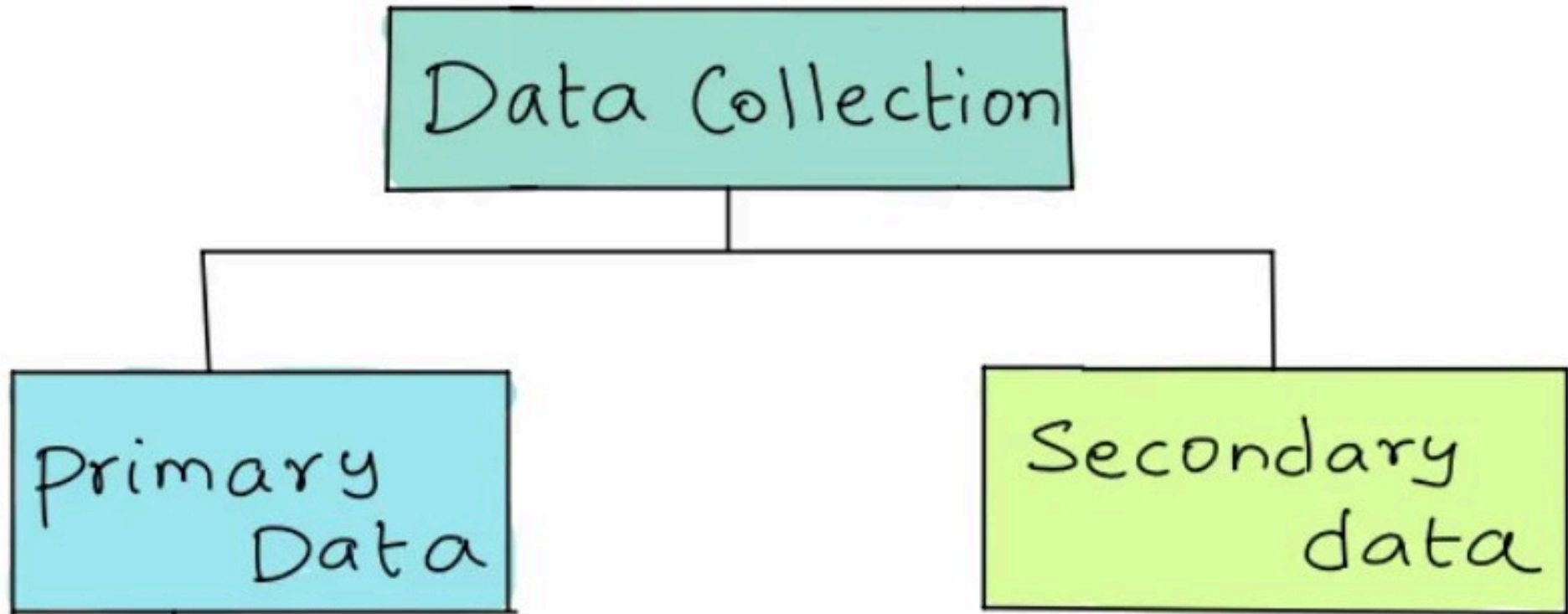
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# Data Collection

# Types of Data

- **Primary data:** Surveys, Questionnaires
- **Secondary data:** Hospital records, public repositories

# Data Collection



Source: [Medium](#)

# Scales of Measurement

## Qualitative Data (Categorical data)

- Nominal
- Ordinal

## Quantitative Data (Numerical data)

- Interval
- Ratio

# Nominal Scale

# Nominal Scale

- Does not have a numerical magnitude
- Classifies or categorizes data
- Responses are usually coded
- Measured by counting frequencies in each code or category
- Summary indices are usually proportions, rates and percentages

# Examples

- **Blood Group:** A, B, AB, O
- **Sex:** Male, Female
- **Marital Status:** Single, Married



# Ordinal Scale

# Ordinal Scale

- Has properties of nominal data
- It is ranked and ordered

# Examples

- Cancer stage
- Level of education
- Level of income

# Interval Scale

# Interval Scale

- Measurement is expressed in numbers
- Starting point is arbitrary
- There is no absolute zero point
- Has unit of measurement

# Examples

- Temperature(Celsius or Fahrenheit)
- IQ Scores
- pH measure

# Ratio Scale

# Ratio Scale

- Has properties of interval scale
- Possesses true zero point
- Can be categorized to ordinal scales
- Each numerical interval is one unit of measurement



# Examples

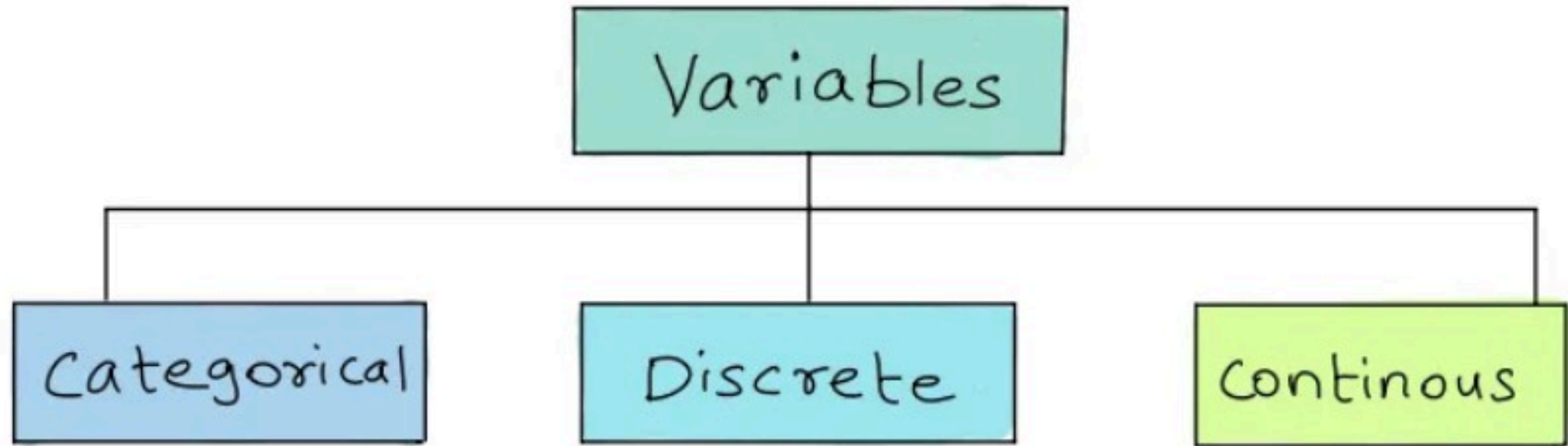
- Height
- Weight
- Age
- Blood pressure

# Variables

# What is a variable?

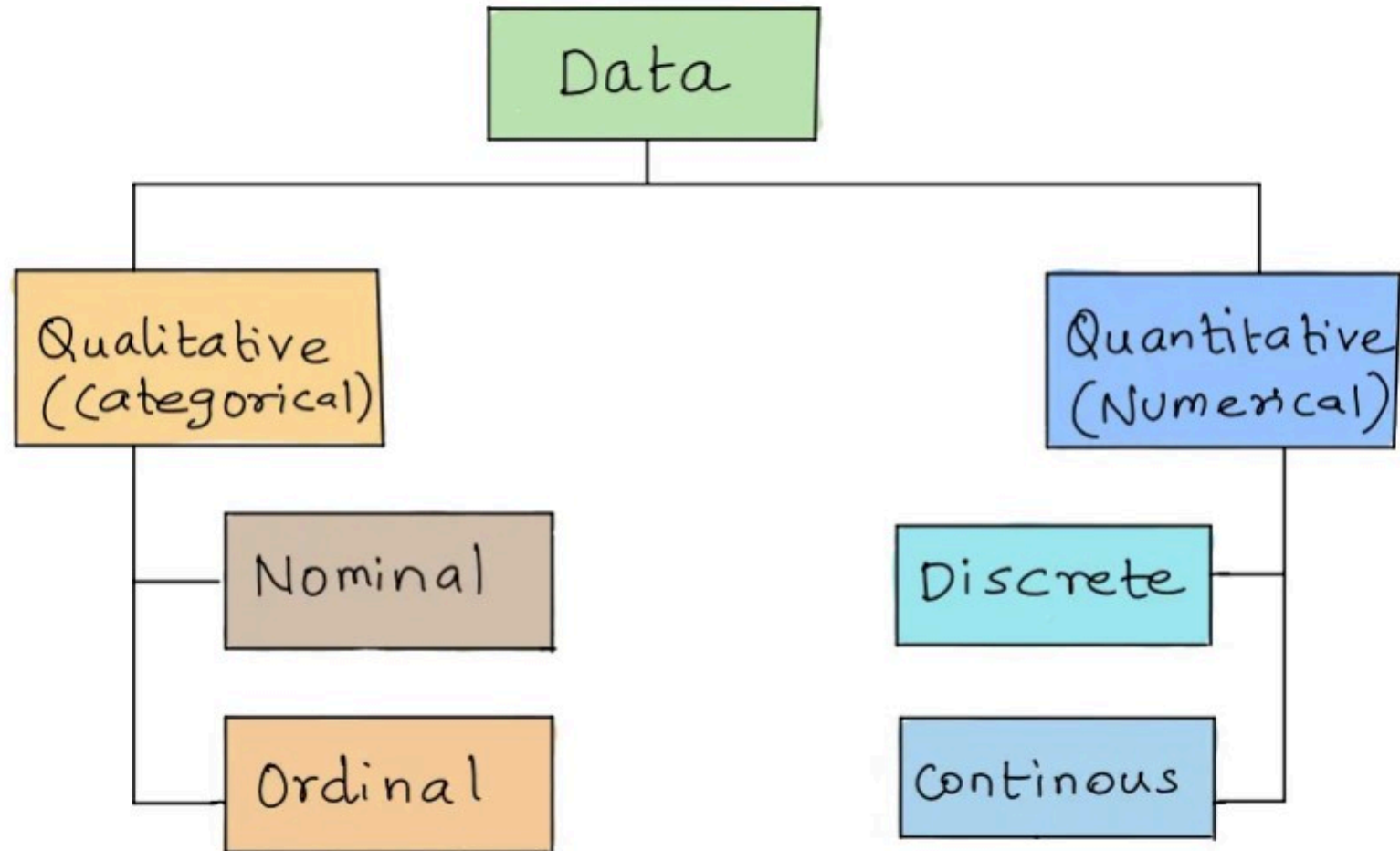
A variable is a characteristic, number, or quantity that can be measured or quantified.

# Variable



Source: [Medium](#)

# Variable



Source: [Medium](#)