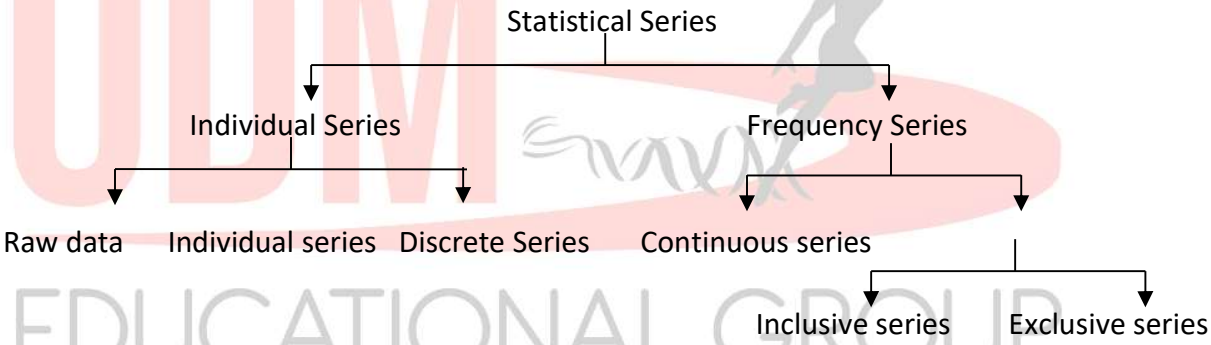
Chapter- 3: **ORGANIZATION OF DATA**

STATISTICS FOR ECONOMICS

1. Classification of Data: The process of grouping data according to their characteristics is known as classification of data.
2. Objectives of Classification:
   a] To simplify complex data
   b] To facilitate understanding
   c] To facilitate comparison
   d] To make analysis and interpretation easy.
   e] To arrange and put the data according to their common characteristics.
3. Statistical Series: Systematic arrangement of statistical data



I. **Can be on the basis of individual units :**
The data can be individually presented in two forms:
i] Raw data: Data collected in original form.
ii] Individual Series: The arrangement of raw data individually. It can be expressed in two Ways.
a] Alphabetical arrangement : Alphabetical order
b] Array: Ascending or descending order.

II. **Can be on the basis of Frequency Distribution:**

Frequency distribution refers to a table in which observed values of a variable are classified according to their numerical magnitude.

1. Discrete Series: A variable is called discrete if the variable can take only some particular values.

2. Continuous Series: A variable is called continuous if it can take any value in a given range. In constructing continuous series we come across terms like:

a] Class : Each given internal is called a class e.g., 0-5, 5-10.

b] Class limit: There are two limits upper limit and lower limit.

c] Class interval: Difference between upper limit and lower limit.

d] Range: Difference between upper limit and lower limit.

e] Mid-point or Mid Value: $\frac{\text{Upper limit - Lower limit}}{2}$

f] Frequency: Number of items [observations] falling within a particular class.

i] Exclusive Series: Excluding the upper limit of these classes, all the items of the class are included in the class itself. E.g., :

	Marks	0-10	10-20	20-30	30-40
	Number of Students	2	5	2	1

ii] Inclusive Series: Upper class limits of classes are included in the respective classes. E.g.,

	Marks	0-9	10-19	20-29
	Number of Students	2	5	2

Open End Classes: The lower limit of the first class and upper limit of the last class are not given. E.g.

Marks	Below 20	20-30	30-40	40-50	50 and above
Number of Students	7	6	12	5	3

iii] Cumulative Frequency Series: It is obtained by successively adding the frequencies of the values of the classes according to a certain law.

a] **'Less than' Cumulative Frequency Distribution**

The frequencies of each class-internal are added successively.

b] 'More than' Cumulative Frequency Distribution:

The more than cumulative frequency is obtained by finding the cumulative totals of frequencies starting the highest value of the variable to the lowest value.

E.g., :

Marks	No. Of Students
0-10	2
10-20	5
20-30	10
30-40	12
40-50	17
50-60	4

Marks	No. of Students
Less than 10	2
Less than 20	7
Less than 30	17
Less than 40	29
Less than 50	46
Less than 60	50

Marks	No. of Students
More than 0	50
More than 10	48
More than 20	43
More than 30	33
More than 40	21
More than 50	4