Max – Min Normalization Method (Min – Max Scaling)

The max-min method rescales a set of numerical values to a common range, typically 0 to 100.

Formula:
$$\frac{x - x_{min}}{x_{max} - x_{min}} \times 100$$

Where:

The lowest value gets   0 and the highest gets   100.

Formula:
$$10 + \frac{x - x_{min}}{x_{max} - x_{min}} \times 90$$

Where:

The lowest value gets   10   and the highest gets   100.

The Fraction calculates how far your value (x) is from the lowest value, relative to the full range of the data.

Example: Lowest cts = 4 (0 marks) --------- Highest cts = 9 (100 marks) --------- My cts = 6

Answer => range = 5; how far is my value = 2;   My cts is 40% (40 marks) ahead of lowest value

Use this Method for Ranking.

Use Z-Score Method for deviation analysis.