

Big O Notation: Understanding Algorithm Complexity

Big O Notation measures the efficiency of an algorithm in terms of time and space complexity.

Key terms:

1. $O(1)$: Constant time, irrespective of input size.
2. $O(n)$: Linear time, scales directly with input size.
3. $O(n^2)$: Quadratic time, performance decreases with large inputs.

Understanding Big O helps optimize algorithms for better performance.