Introduction

What Is A Data Structure ?

A data structure is a way of organizing and storing data so that it can be accessed and modified efficiently.

Why Do We Need Data Structures?

1. Organize data efficiently.
2. Perform operations like search, insert, delete quickly.
3. Optimize memory usage.

What is an Algorithm?

An algorithm is a step-by-step procedure or a set of rules to solve a specific problem.

Why Do We Need Algorithms?

1. Solve problems efficiently and correctly.
2. Compare performance (time/space).
3. Write scalable and optimized code.

Data Structure	Algorithm
Focuses on **how data is stored**.	Focuses on **how data is processed**.
Examples: Array, Tree, Graph	Examples: Binary Search, Quick Sort
Passive: Just holds data	Active: Performs operations using data