A data structure is a way of organizing, managing, and storing data in a computer so it can be accessed and modified efficiently. Data structures are fundamental to designing efficient algorithms and managing resources effectively.

Three Examples of Data Structures

Array:

A collection of elements identified by index or key, where all elements are of the same type.

Example: Storing the scores of students in a class.

Linked List:

A linear data structure where each element (called a node) contains a data part and a reference (or pointer) to the next node in the sequence.

Example: Managing a playlist of songs.

Hash Table:

A data structure that uses a hash function to map keys to values for efficient lookup.

Example: Storing and quickly retrieving employee records based on an employee ID.