

Linked List Operations

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Linked Lists

A **Linked List** is a linear data structure consisting of nodes, where each node contains data and a reference to the next node.

Types of Linked Lists:

- **Singly Linked List:** Each node points to the next node.
- **Doubly Linked List:** Each node has pointers to both the next and previous nodes.
- **Circular Linked List:** The last node connects to the first node.

Operations on Linked Lists:

- **Traversal:** Accessing each element in the list.
- **Searching:** Finding an element in the list.
- **Insertion:** Adding an element at the beginning, middle, or end.
- **Deletion:** Removing an element from the list.

Linked Representation of Stacks and Queues: Implementing stacks and queues using linked lists instead of arrays.

