Introduction to Data Structures

Data Structures and its Real life Applications

Array In Data Structure

Introduction to Array
Inserting An Element In Array
Searching An Element In Array
Removing An Element In Array
Remove Duplicates from the Sorted Array
Rotate an Array by K Positions [Normal Method]
Rotate an Array by K Positions [Reversal Method]
Reverse individual words
Reverse a string without affecting special characters

Linked List

Linked list Basics
Inserting a node at the beginning of a linked list
Inserting a node at the end of Linked list
Deleting a node in linked list
Why do we use **head in deleteNode function?
Searching a node in singly linked list
Linked list vs Array
Find the Middle Node of the Linked List [Using Loop]
Find the Middle Node of the Linked List [Using Slow & Fast Pointers] PREVIEW
Get Nth Node of the Linked List
Print the Linked List in Reverse Order
Get Nth node from the last
Detect the loop in the linked list
Reverse the linked list

Doubly Linked List

Introduction to Doubly linked list

Insert a node at beginning of a doubly linked list
Insert a node at end of a doubly linked list
Search a node in doubly linked list
Delete a node in a doubly linked list

Circular Linked List

Circular Linked list Basics
Inserting a node in a beginning of circular linked list
Inserting a node in the end of circular linked list
Search a node in circular linked list
Deleting a node in circular linked list

Stack

Stack using array and application
Stack using linked list
Implement two stacks in an array[Method 1]
Implement two stacks in an array[Method 2]
Reverse a string using Stack
Check if the given expression is balanced or not
Introduction to Infix Prefix Postfix expressions
Evaluate the postfix expression using Stack

Queue

Queue using array and application
Queue using linked list

Binary Search Tree

Binary Tree basics
Need for Binary Search Tree
Binary Search Tree Basics and Node creation
Binary Recursion
Insert a node in Binary Search Tree
Inorder traversal

Search a node in Binary Search Tree

Delete a node in Binary Search Tree

Find Minimum Value in BST

Find Sizeof() BST

Find Maximum Depth or Height of BST

Graphs

Graph Basics Degree of Vertex

Adjacency matrix representation of graph

Implementation of Adjacency Matrix

Adjacency list representation of graph

Implementation of Adjacency list

Adjacency matrix Vs Adjacency list representation

Binary Heaps

Why & What is Binary heap (Priority Queue)

Constructing Binary Heap - Heapify

Delete a Maximum element in Binary Heap