Why do we need Recursion and what is it ?

What is a recursive tree ?

Basic algorithm for recursion, how should we break the input and what is a base condition ?

Fibonacci series and difference between recursive and iterative method

Print numbers from 1 to n using recursion

Print numbers from n to 1 using recursion

Reverse an array, string using recursion

Reverse a stack using recursion

Sort an array using recursion

Tower of Hanoi problem

Generating all subsets/powersets

Generating all unique subsets/powersets

Generating all permutation with spaces

Generating all permutation with case change

Josephus Problem

Recursive Digit Sum

Number of paths

Special Keyboard

Crossword Puzzle

Merge two sorted lists

Power of two

Power of three

Power of four

Cryptoarithmetic

Word Break - I

Memorisation of recursive calls.

What is backtracking ?

Why Linked List ?

Advantages/Disadvantages

Properties

What is a node, its structure ?

Making a linked list

Types of Linked List

Length of Linked List

Search in a linked list

Insertion Singly Linked List (start, middle, end)

Deletion Singly Linked List  (start, middle, end)

Insertion DoublyLinked List (start, middle, end)

Deletion Doubly Linked List  (start, middle, end)

Insertion Circular Linked List

Deletion Circular Linked List

Merge two sorted Linked List

Reverse a Linked List iterative

Reverse a Linked List recursive

Loop in linked list (tortoise algo, hashing)

Start of the loop

Middle of Linked List

Palindrome or not

Removing Duplicates from Linked List

Add two numbers represented as Linked List

Intersection of two Linked List

Nth node from the end.

Stack using Linked List

Queue using Linked List

Delete a given Node when a node is given

Flattening of a LinkedList

Reverse a LinkedList in groups of size k

Find length of loop present in linked list

Insert element in a sorted linked list

Remove duplicates from sorted linked list

Merge two linked list at alternate position

Delete nth node from start (similarly nth node from the end)

Delete nth node from end

Insertion deletion at (nth position)

PRint given linked list in reverse order without reversing linked list

What is a tree ?

Types of trees ?

What is a node and its structure ?

What is a Binary Search Tree

What is a Binary Tree

Construction of a Tree ?

Insertion of a node

Deletion of a node

Inorder traversal iterative

Preorder traversal iterative

Postorder traversal iterative

Inorder traversal recursive

Preorder traversal recursive

Postorder traversal recursive

Level order traversal

Vertical order traversal

Search in a tree

Height of tree

Number of nodes

Number of leaf nodes

Sum of all nodes

Different views of tree (top, bottom, right, left)

Inorder successor

Inorder Predecessor

Diagonal elements of tree

Root to leaf paths

Zigzag traversal

Diameter of tree

Lowest common ancestor

connect nodes which are at same level

Print mirror image of given binary tree

Efficient way to print nodes present between two levels

Print all ancestors of given node in binary tree

Convert binary tree to binary search tree

check is given binary tree is a valid binary search tree

Insert node in a given binary search tree

check if given binary tree is subtree of another one or not

print all nodes that do not have siblings

Bubble

Insertion

Selection

Merge

Quick

Counting

Shell

Sorting using Linked List

Linear search

Binary search

Ternary Search

First and last occurrence of an element

Floor/ceil of an element in array

Next permutation

Searching in infinite sorted array

Why Heap ?

What is a heap ?

Types of Heap

Implementing Heap and its basic operations

Kth smallest/largest element

K closest numbers

K frequent numbers

Median in a stream

K closest points to origin

Connecting ropes

What is a stack ?

What is a queue ?

Implementing stack and its operations

Implementing queue and its operations

Types of queue

Parenthesis checker

Next greater to right

Next greater to left

Next smaller to right

Add min() and max () methods to return minimum and maximum value from stack and queue

Design a stack which keeps largest element at the top

Reverse given stack and queue

Next greater to left

Stock span problem

Generate binary numbers between 1 to N

Stack using queue

Queue using stack

Min Stack O(n)

Min stack O(1)

Postfix, infix,prefix conversion (all combinations)

Postfix, infix,prefix evaluation

LRU cache

Maximum Area Histogram

Rain water trapping

What is a greedy approach ?

N meeting in one room

Activity Selection

Greedy algorithm to find minimum number of coins

Fractional Knapsack Problem

Minimum number of platforms required for a railway

Job sequencing Problem

"Find the minimum and maximum element in an array.

"

Sort the array of 0s, 1s, and 2s.

Reverse the given input array.

Find non repeated element in aray of integers

Check whether given array is sorted or not.

Find the number of 1’s in a sorted binary array.

Move all the negative elements to one side of the array.

Find the nth largest and nth smallest number in an array.

Find most frequent element in array.

0. Merge two sorted array to form single array.

. Find missing number in integer array of 1 to 100

Find duplicate number in array of integer.

Find all pairs on integer array whose sum is equal to given number.

. Remove duplicates from array of integer.

Move all 0s to end of the array.

Find duplicate elements in array.

Find the first repeating element in an array of integers.

Find group of three elements that sum to a given value.

9. Find longest subsequence in given unsorted array.

Arrange numbers of array to form greatest number.

Print all combinations of numbers from 1 to n having sum n

Find longest increasing subsequence in array.

Find the minimum and maximum element in a rotated and sorted array

Find if one array is subset of other array.

"Given a sorted integer array which is rotated any number of times, find the pivot index i.e. index

of the minimum element of the array.

"

Search an element in a sorted and rotated array.

Search an element in a sorted and rotated array.

Print the matrix in a Spiral manner.

Reverse given string.

Find maximum ocurring charater in given string.

Write a program to remove a given character from String.

Remove all duplicates from given string.

Print duplicate characters of given string.

Check if two string are rotation of each other or not.

Print all permuations of given string

Find first non-repeating character of given string.

check if two given string is anagram of each other.

Check if given string is pallindrome or not.

Find the length of the longest substring without repeating characters.

Find the maximum occurring character in given String.

Check if given string has all unique characters

4. Given two strings , check if one is permutation of the other

There are three types of edits that can be performed on string insert, remove, replace.Given two strings write function to check how many edits are required.

Write a function to perform basic string compression e.g. aabccccc would become a2b1c5a3 and vice versa

what is graph data structure and its examples

BFS Traversal and its Application

DFS Traversal and its application

Find Minimum steps to reach target