**Basics Data Structure**

**Array:**

1. Search, insert and delete in an unsorted array

2. Search, insert and delete in a sorted array

3. Write a program to reverse an array

4. Leaders in an array

5. Given an array A[] and a number x, check for pair in A[] with sum as x

6. Majority Element

7. Find the Number Occurring Odd Number of Times

8. Largest Sum Contiguous Subarray

9. Find the Missing Number

10. Search an element in a sorted and pivoted array

11. Merge an array of size n into another array of size m+n

12. Median of two sorted arrays

13. Program for array rotation

14. Reversal algorithm for array rotation

15. Block swap algorithm for array rotation

16. Maximum sum such that no two elements are adjacent

17. Sort elements by frequency | Set 1

18. Count Inversions in an array

**Important:-** All Articles on Array

Coding Practice on Array

Quiz on Array

Coding Practice on Array

Recent Articles on Array

**Matrix:**

1. Search in a row wise and column wise sorted matrix

2. Print a given matrix in spiral form

3. A Boolean Matrix Question

4. Print unique rows in a given boolean matrix

5. Maximum size square sub-matrix with all 1s

6. Print unique rows in a given boolean matrix

7. Inplace M x N size matrix transpose | Updated

8. Dynamic Programming | Set 27 (Maximum sum rectangle in a 2D matrix)

9. Strassen’s Matrix Multiplication

10. Create a matrix with alternating rectangles of O and X

11. Print all elements in sorted order from row and column wise sorted matrix

12. Given an n x n square matrix, find sum of all sub-squares of size k x k

13. Count number of islands where every island is row-wise and column-wise separated

14. Find a common element in all rows of a given row-wise sorted matrix

**Important :-**All Articles on Matrix

Coding Practice on Matrix

Recent Articles on Matrix.

Linked List:

**Singly Linked List:**

1. Introduction to Linked List

2. Linked List vs Array

3. Linked List Insertion

4. Linked List Deletion (Deleting a given key)

5. Linked List Deletion (Deleting a key at given position)

6. A Programmer’s approach of looking at Array vs. Linked List

7. Find Length of a Linked List (Iterative and Recursive)

8. How to write C functions that modify head pointer of a Linked List?

9. Swap nodes in a linked list without swapping data

10. Reverse a linked list

11. Merge two sorted linked lists

12. Merge Sort for Linked Lists

13. Reverse a Linked List in groups of given size

14. Detect and Remove Loop in a Linked List

15. Add two numbers represented by linked lists | Set 1

16. Rotate a Linked List

17. Generic Linked List in C

**Circular Linked List:**

1. Circular Linked List Introduction and Applications,

2. Circular Singly Linked List Insertion<

3. Circular Linked List Traversal

4. Split a Circular Linked List into two halves

5. Sorted insert for circular linked list

**Doubly Linked List:**

1. Doubly Linked List Introduction and Insertion

2. Delete a node in a Doubly Linked List

3. Reverse a Doubly Linked List

4. The Great Tree-List Recursion Problem.

5. QuickSort on Doubly Linked List

6. Merge Sort for Doubly Linked List

All Articles of Linked List

Quiz on Linked List

Coding Practice on Linked List

Recent Articles on Linked List

**Stack:**

1. Introduction to Stack

2. Infix to Postfix Conversion using Stack

3. Evaluation of Postfix Expression

4. Reverse a String using Stack

5. Implement two stacks in an array

6. Check for balanced parentheses in an expression

7. Next Greater Element

8. Reverse a stack using recursion

9. Sort a stack using recursion

10. The Stock Span Problem

11. Design and Implement Special Stack Data Structure

12. Implement Stack using Queues

13. Design a stack with operations on middle element

14. How to efficiently implement k stacks in a single array?

15. Sort a stack using recursion

Quiz on Stack

All Articles on Stack

Coding Practice on Stack

Recent Articles on Stack

**Queue:**

1. Queue Introduction and Array Implementation

2. Linked List Implementation of Queue

3. Applications of Queue Data Structure

4. Priority Queue Introduction

5. Deque (Introduction and Applications)

6. Implementation of Deque using circular array

7. Implement Queue using Stacks

8. Find the first circular tour that visits all petrol pumps

9. Maximum of all subarrays of size k

10. An Interesting Method to Generate Binary Numbers from 1 to n

11. How to efficiently implement k Queues in a single array?

Quiz on Queue

All Articles on Queue

Coding Practice on Queue

Recent Articles on Queue