**Arrays**

1. Dutch national flag problem
2. Kadane's algorithm
3. Moore's voting algorithm
4. Rotate an array and find an element in rotated sorted array
5. Find missing element in array(XOR technique)
6. Find median of two sorted array
7. Merge two sorted array
8. Find the next greater digit with same set of digits
9. Check if a number is palindrome (check the code on leetcode)
10. Search an element in sorted matrix.
11. Rotate an image by 90 degree(code in cracking coding interview book)
12. Print a matrix in spiral form(code in cracking coding interview book)
13. Find the index of 1 in an array with 0 and 1 infinitely (<http://www.geeksforgeeks.org/find-position-element-sorted-array-infinite-numbers/>)
14. Binary search in array (recursive and iterative)

**Stacks**

1. Convert inorder to postorder and evaluate the postorder
2. Balanced parenthesis
3. design an array which supports constant time(O(1)) push,pop, min.(<http://www.geeksforgeeks.org/design-and-implement-special-stack-data-structure/>)
4. Implement queue with 2 stacks
5. Implement stack with array and linked list
6. Implement two stack in array (<http://www.geeksforgeeks.org/implement-two-stacks-in-an-array/>)
7. Merge overlapping interval(<http://www.geeksforgeeks.org/merging-intervals/>)

**Linked list**

1. Find loop in the linked list
2. Find the lenght of the loop in the linked list
3. Find the intersection of two linked list(<http://www.geeksforgeeks.org/write-a-function-to-get-the-intersection-point-of-two-linked-lists/>)
4. Merge two sorted linked list (<http://www.geeksforgeeks.org/merge-two-sorted-linked-lists/>)
5. Reverse linked list(recursive and iterative)
6. Clone a linked list with random pointer
7. Add numbers represented by two Linked list

**Strings**

1. Return maximum occurring character in the input string
2. Remove all duplicates from a given string
3. Reverse words in a given string
4. Reverse a string
5. Given a string, find its first non-repeating character
6. Write a program to print all permutations of a given string
7. A Program to check if strings are rotations of each other or not
8. Check if two strings are anagram
9. Check if string is palindrome

**Bit manipulation**

1. Check if a number is power of two.(<http://www.geeksforgeeks.org/write-one-line-c-function-to-find-whether-a-no-is-power-of-two/>)
2. Little and Big Endian Mystery
3. Position of rightmost set bit
4. Find whether a given number is a power of 4 or not
5. Add two numbers without using arithmetic operators

**Tree**

1. Tree traversal(inorder, preorder, postorder)
2. Level order traversal
3. Count the number of leaves in tree
4. Height and diameter of a tree
5. left top bottom right view of a tree'
6. Root to leaf sum path
7. print all the root to leaf path
8. Binary search tree and height balanced tree (AVL)

**General**

1. Sieve of erathoness for prime numbers

**Graphs**

1. Graph representation
2. DFS and BFS
3. Topological sort
4. Cycle detection

Edit:

**Sorting**

1. Quick sort
2. merge sort(some problems based on merging)
3. O(n) sorting (shell sort, bucket sort etc)

**Backtracking**

1. Sudoku
2. Rat in maze