Linked List

Introduction

This week's main objective will be to get back into DSA practice and Coding.

As you all will be very familiar with Linked Lists, we'll be starting with that topic.

25th Jan and 26th Jan(Wed and Thurs):

- Get familiar to **Pointers** in C++/Java(whichever Programming Language your using).
- Get familiar with Linked Lists in C++/Java:
    - https://www.geeksforgeeks.org/linked-list-set-1-introduction/
    - https://www.geeksforgeeks.org/linked-list-set-2-inserting-a-node/
    - https://www.geeksforgeeks.org/linked-list-set-3-deleting-node/
    - https://www.geeksforgeeks.org/find-length-of-a-linked-list-iterative-and-recursive/

Solve simple Questions:

1. https://practice.geeksforgeeks.org/problems/linked-list-insertion-1587115620/1?page=1&difficulty[]=-1&category[]=Linked%20List&sortBy=submissions

2. https://practice.geeksforgeeks.org/problems/print-linked-list-elements/1?page=1&difficulty[]=-1&category[]=Linked%20List&sortBy=submissions

3. https://practice.geeksforgeeks.org/problems/count-nodes-of-linked-list/1?page=1&difficulty[]=-1&category[]=Linked%20List&sortBy=submissions

27th Jan(Fri):

Problems for the Day:

1. https://leetcode.com/problems/reverse-linked-list/
2. https://leetcode.com/problems/middle-of-the-linked-list/
3. https://leetcode.com/problems/merge-two-sorted-lists/

28th Jan(Sat):

Important Topic: Floyds Cycle Detection Algorithm (Detecting loop/cycle in a Linked List)

A Very Very Important topic. Popularly solved using Fast/Slow Pointer Method
Link: https://youtu.be/354J83hX7RI

Try to learn the theory/mathematics behind the algorithm(fast-slow pointer)

Link: https://youtu.be/LUm2ABqAs1w (Watch in 1.5x to 2x speed)

Note: Was asked for me in interview, how and why this algorthim works

Problems:

1. https://leetcode.com/problems/reverse-linked-list/
2. https://leetcode.com/problems/linked-list-cycle-ii/

29th Jan(Sun):

- Revise Linked Lists
- Get back into Coding
- Familiarize yourself with Coding Platforms like GFG and Leetcode
- Get ready to solve Medium and some Hard Level Linked List problems next week.