Week 7 and 8: LinkedList and Trees

Resources for Linked List

- 1. https://www.geeksforgeeks.org/linked-list-set-1-introduction/
- 2. https://www.javatpoint.com/java-linkedlist
- 3. https://www.hackerearth.com/practice/data-structures/linked-list/singly-linked-list/tutorial/

Resources for Trees

- 1. https://www.hackerearth.com/practice/notes/trees/
- 2. https://www.hackerearth.com/practice/data-structures/trees/binary-search-tree/tutorial/
- **3.** https://www.hackerearth.com/practice/data-structures/trees/binary-and-nary-trees/tutorial/

Problems on LinkedList -

- 1. Delete node in a linked list https://leetcode.com/problems/delete-node-in-a-linked-list/
- 2. Reverse a linked list https://leetcode.com/problems/reverse-linked-list/
- 3. Palindrome https://leetcode.com/problems/palindrome-linked-list/
- **4.** Rotate a linked list https://leetcode.com/problems/rotate-list/
- 5. Design a linked list https://leetcode.com/problems/design-linked-list/
- **6.** Reverse nodes in groups of k https://leetcode.com/problems/reverse-nodes-in-k-group/
- Detect and remove cycle in linked list -https://practice.geeksforgeeks.org/problems/remove-loop-in-linked-list/1

Problems on Trees -

- 1. Search in a BST https://leetcode.com/problems/search-in-a-binary-search-tree/
- 2. Invert binary tree https://leetcode.com/problems/invert-binary-tree/
- 3. Depth of binary tree https://leetcode.com/problems/maximum-depth-of-binary-tree/
- **4.** Minimum distance between nodes of BST https://leetcode.com/problems/minimum-distance-between-bst-nodes/
- **5.** Lowest Common Ancestor in BST https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree/
- **6.** Construct BST from Preorder Traversal https://leetcode.com/problems/construct-binary-search-tree-from-preorder-traversal/
- 7. Insertion in BST https://leetcode.com/problems/insert-into-a-binary-search-tree/
- 8. Deletion of nodes https://leetcode.com/problems/delete-leaves-with-a-given-value/
- 9. Construct BST from Preorder and Postorder Traversals https://leetcode.com/problems/construct-binary-tree-from-preorder-and-postorder-traversal/
- **10.** Construct BST from Preorder and Inorder Traversals https://leetcode.com/problems/construct-binary-tree-from-preorder-and-inorder-traversal/
- **11.** Construct BST from Inorder and Postorder Traversals https://leetcode.com/problems/construct-binary-tree-from-inorder-and-postorder-traversal/
- 12. Right View of Binary Tree https://leetcode.com/problems/binary-tree-right-side-view/

13. Bottom View of Binary Tree - https://practice.geeksforgeeks.org/problems/bottom-view-of-binary-tree/1

14. Top View of Binary Tree - https://practice.geeksforgeeks.org/problems/top-view-of-binary-tree/1

15. Left View of Binary Tree https://practice.geeksforgeeks.org/problems/left-view-of-binary-tree/1

16. Serialize and Deserialize a Binary Tree - https://leetcode.com/problems/serialize-and-deserialize-binary-tree/