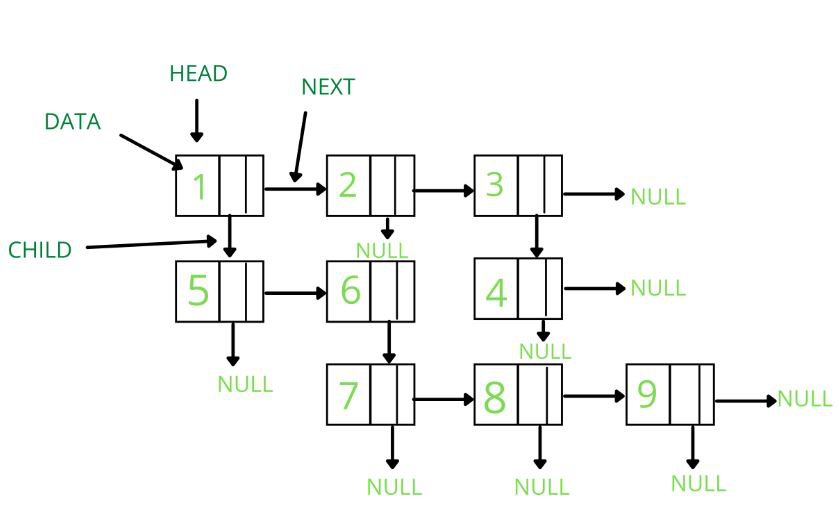
2024

Vipul Dessai

[Awesome Compony]

2/24/2024

DSA – Linked Lists



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# [Merge in between linked lists](https://leetcode.com/problems/merge-in-between-linked-lists/description/)

## Intuition

Use counter to find c == a and c == b + 1 and later use (b+1).next

Avoid the memory leaks by pointing list2 head to to its tail which can happen if counter counts wrong indices

## Complexity

TC – O(N)

SC – O(1)

## [Solution](https://leetcode.com/problems/merge-in-between-linked-lists/solutions/4902307/simple-counter-based-solution-explaination/?envType=daily-question&envId=2024-03-20)

# [Linked list in a binary tree](https://leetcode.com/problems/linked-list-in-binary-tree)

## Intuition

DFS through all the node, assume root node matches the linked list head and move to next, if not fallback to previous node

Optimized solution is string matching algorithm – knuth morris pratt algorithm

## Complexity

TC – O(M \* N) – binary tree length \* linked list length

SC – O(N)

Solution – Brute force

[Optimized Solution](https://leetcode.com/problems/linked-list-in-binary-tree/solutions/524881/python-recursive-solution-o-n-l-time) – Knuth Morris Pratt Algorithm