Interview Programs

Tuesday, 17 March 2020 11:35 AM

Permutations of Palindrome - Fake Palindrome
Linked List Identify Loops - https://javarevisited.blogspot.com/2013/05/find-if-linked-list-co circular-check.html
LRU Cache -
Find 3rd element from the LinkedList from last
Find pairs from the array which will get formed more than value
Reverse the LinkedList
Anagram - AKS,SKA - same characters with different positions
Palindrome - Front and reverse of the characters should be same
Largest Sum contagious array
print the anagrams in sequential way - https://www.geeksforgeeks.org/given-a-sequence-of together/
Sort HashMap by Values
Binary Search
PRINT pairs from array whose sum is equal to n - https://www.geeksforgeeks.org/print-all-p

```
1st question - If you need more classes, simply define them inline.
 {“cat”, “dog”, “tac”, “god”, “act”} - Group the Anagram words together
[[cat tac act] ,[dog god]]
2nd question - dog gode -> whether 2 words anagram or not
```

Reverse a Linked List in groups of given size
Program for n'th node from the end of a Linked List - GeeksforGeeks
Flattening a Linked List | Practice | GeeksforGeeks
Detect and Remove Loop in a Linked List - GeeksforGeekswww.geeksforgeeks.org
https://www.geeksforgeeks.org/sum-of-two-linked-lists/

Array:
https://www.geeksforgeeks.org/array-data-structure/?ref=ghm
https://www.bigocheatsheet.com/

- Large Contiguous Subarray - Kadane's algorithm
- Subarray with given sum in O(N) complexity
    - Sliding window technique since it is contagious subarray
    - Using left & right pointers with current_sum
    - https://www.geeksforgeeks.org/find-subarray-with-given-sum/

ntains-loops-cycle-cyclic-

f-words-print-all-anagrams-

airs-with-given-sum/

- Number of subarrays having sum exactly equal to k
- Number Of Ways To Make Change
  - https://hailegia.medium.com/dynamic-programming-number-of-ways-to-make-fbaf17b8f6f8
  - F(12, [1, 2, 5]) = F(12, [1, 2]) + F(7, [1, 2, 5])
- KnackSack Problem -> https://medium.com/@logicdevildotcom/knapsack-problems-1
- Find The Longest Increasing Subsequence - DP
- Longest Common Subsequence
- Print Longest substring without repeating characters - sliding window technique
- Kth Largest Sum Contagious SubArray - https://www.geeksforgeeks.org/k-th-largest-s
- Longest Consecutive Subsequence
- https://www.geeksforgeeks.org/window-sliding-technique/
- https://www.geeksforgeeks.org/kth-smallestlargest-element-unsorted-array/
- https://www.geeksforgeeks.org/largest-subarray-with-equal-number-of-0s-and-1s/ - c
- https://www.geeksforgeeks.org/maximum-length-of-subarray-such-that-all-elements-subarray/?ref=rp
- Maximum diff between 2 elements in array - https://www.geeksforgeeks.org/maximu elements/. O(n)
  - Iterate through the array
  - Check for min element in each index
  - Parallelly subtract the next subsequent elements from min element
- Minimum swaps to sort
  - https://www.geeksforgeeks.org/minimum-number-swaps-required-sort-array/
  - Sort the array using pair concept(value, original index)
  - Pick the elements iteratively and swap the element by moving it to its original in
  - Keep doing until all will move to its original position and calculate swapCount.
- Buy Sell Stocks to maximize Profit -> https://www.geeksforgeeks.org/stock-buy-sell/
  - https://medium.com/@punitkmr/best-time-to-buy-and-sell-stock-ii-782684514
  - Valley Peak Approach
  - Simple one pass approach
  - **Variants:**
    - Buy Sell stocks with mazeless transactions - Valley Peak Approach
    - Buy Sell Stocks with single transaction ->
      - https://www.techiedelight.com/find-maximum-difference-between
    - Buy Sell Stock with at most 2 transactions ->
      - https://www.techiedelight.com/find-maximum-profit-earned-from-transactions/
      - Maximum diff between 2 elements approach
      - https://www.geeksforgeeks.org/maximum-profit-by-buying-and-sel set-2/?ref=rp
    - Buy Sell Stock with K transactions -> DP approach

-change-in-5-minutes-

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um-contiguous-subarray/

cumulative sum. O(n)
-are-equal-in-the-

um-difference-between-two-

ndex before sorting.

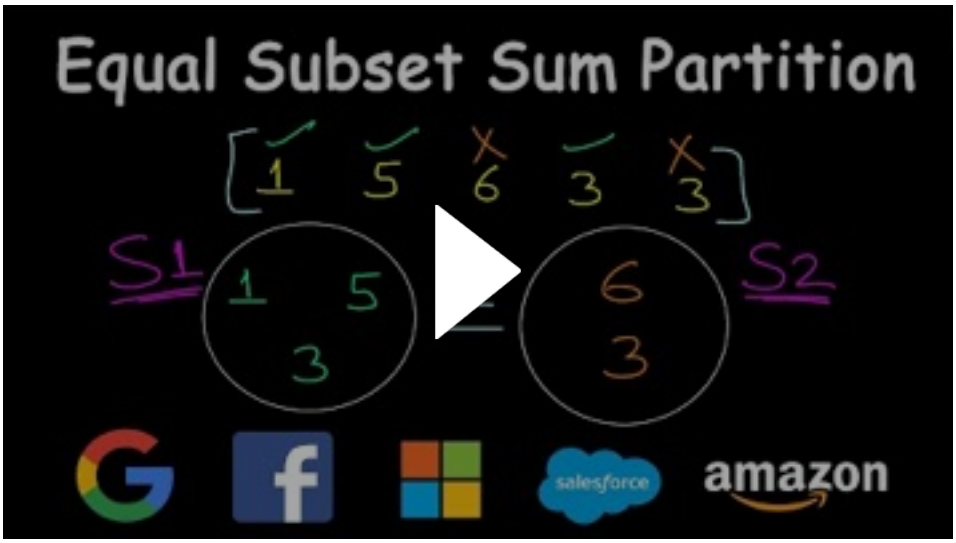
4eb

-ktwo-elements-array/

-at-most-two-stock-

lling-a-stock-at-most-twice-

        - https://www.geeksforgeeks.org/maximum-profit-by-buying-and-sel times/
- Maximum j,I difference, such than arr[j]>arr[i]
    - https://www.geeksforgeeks.org/given-an-array-arr-find-the-maximum-j-i-
- Count number of ways to reach end - https://www.geeksforgeeks.org/count-number-
- https://www.geeksforgeeks.org/minimum-number-of-jumps-to-reach-end-of-a-given-
- Count of ways to reach destination in Maze - https://www.geeksforgeeks.org/count-n destination-maze/
- Rat in maze - https://www.geeksforgeeks.org/rat-in-a-maze-backtracking-2/
- Count no of ways to reach stairs
    - https://www.geeksforgeeks.org/count-ways-reach-nth-stair/
    - https://www.geeksforgeeks.org/count-number-of-ways-to-cover-a-distance/
- Subset Sum - Dynamic Programming
    - Subset Sum Problem Dynamic Programming
    - https://github.com/mission-peace/interview/blob/master/src/com/interview/d
- Partition equal subset sum **(split into 2 subset) - DP**
    - Partition equal subset sum | Equal sum partition | Dynamic Programming | Leet



- Partition to K Equal Sum Subsets from array possible or not - **Backtracking**
    - https://morioh.com/p/46eb99a9636e
    - https://medium.com/trick-the-interviwer/partition-to-k-equal-sum-subsets-ebf
    - https://www.techiedelight.com/k-partition-problem-print-all-subsets/

- Count of subsets with given sum
    - Count subsets with given sum | Dynamic Programming

lling-a-share-at-most-k-

-such-that-arrj-arri/
ways-jump-reach-end/
-array/
umber-ways-reach-

ynamic/SubsetSum.java

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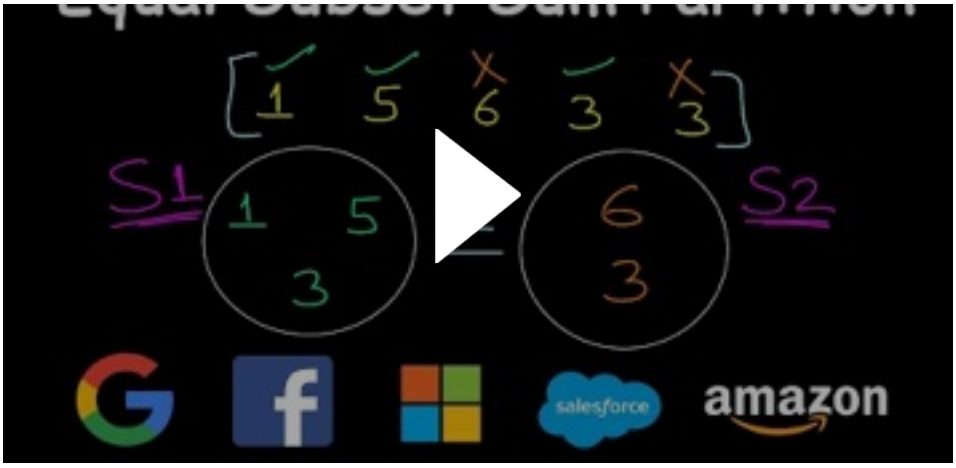

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  - https://www.techiedelight.com/k-partition-problem-print-all-subsets/

- Count of subsets with given sum
  - Count subsets with given sum | Dynamic Programming

  - https://www.geeksforgeeks.org/count-of-subsets-with-sum-equal-to-x-using-recursion/
  - https://www.geeksforgeeks.org/count-of-subsets-with-sum-equal-to-x/

- Minimum Subset difference:
  - Minimum subset sum difference | Minimum difference subsets | Dynamic Programming

  - https://gist.github.com/SuryaPratapK/2d64d50aacc394a9dbe1e8797ebbf361
  - https://www.geeksforgeeks.org/partition-a-set-into-two-subsets-such-that-the-difference-of-subset-sums-is-minimum/
- Count no of ways to partition it into K subsets
  - https://www.geeksforgeeks.org/count-number-of-ways-to-partition-a-set-into-k-subsets/?ref=rp
- Print all Subsequences of string: - BT
  - https://www.geeksforgeeks.org/print-subsequences-string/

Sorting:

- https://www.geeksforgeeks.org/heap-sort/
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Interview DSA questions to prepare:

- https://medium.com/javarevisited/50-data-structure-and-algorithms-interview-questions-for-programmers-b4b1ac61f5b0
- https://www.geeksforgeeks.org/must-do-coding-questions-for-companies-like-amazon-microsoft-adobe/
- https://practice.geeksforgeeks.org/tracks/md-hashing/?batchId=144
- DP -> https://www.geeksforgeeks.org/top-20-dynamic-programming-interview-questions/?ref=leftbar-rightbar
- Hash Techinique -> https://www.geeksforgeeks.org/top-20-hashing-technique-based-interview-questions/?ref=rp

Leetcode Best Time to Buy and Sell Stock

```
publicclassSolution{
   publicintmaxProfit(int[] prices) {
      // Start typing your Java solution below
      // DO NOT write main() function
      if(prices== null|| prices.length== 0) return0;
```