

Course Link: http://bit.ly/dsalevelup Instructor: Prateek Narang

Coding Minutes IDE: http://ide.codingminutes.com

# **Practice Problems on Other Platforms**

(Note: All course problems are not available outside)

# **Section 2 : Array and Vectors**

(i) Pair Sum ->

https://leetcode.com/problems/two-sum/

(ii) Triplets ->

https://leetcode.com/problems/3sum/

(iii) Mountain ->

https://leetcode.com/problems/longest-mountain-in-array/

(iv) Longest Band->

https://leetcode.com/problems/longest-consecutive-sequence/

(v) Rains ->

https://leetcode.com/problems/trapping-rain-water/

(vi) Subarray sort->

https://leetcode.com/problems/shortest-unsorted-continuous-subarray/

(vii) Min Swaps ->

https://practice.geeksforgeeks.org/problems/minimum-swaps/1

(viii) Max Subarray->

https://leetcode.com/problems/maximum-subarray/

(ix) Activity Selection Problem ->

https://leetcode.com/problems/minimum-number-of-arrows-to-burst-balloons/

(X) Product Array ->

https://leetcode.com/problems/product-of-array-except-self/



# **Section 3: String Problems**

- (i) String Key Sort -> https://leetcode.com/problems/largest-number/
- (ii) Check Subsets -> https://leetcode.com/problems/is-subsequence/
- (iii) Sort Subsequences -> <a href="https://leetcode.com/problems/subsets/">https://leetcode.com/problems/subsets/</a>
- (iv) Run Length Encoding -> https://leetcode.com/problems/string-compression/
- (v) Palindrome Break -> https://leetcode.com/problems/break-a-palindrome/
- (vi) String Normalisation->
  https://leetcode.com/problems/detect-capital/

## **Section 4 : Sliding Window:**

- (i) Unique Substring-> https://leetcode.com/problems/longest-substring-without-repeating-characters/
- (ii) String Window -> <a href="https://leetcode.com/problems/minimum-window-substring/">https://leetcode.com/problems/minimum-window-substring/</a>
- (iii) Sliding Window Max -> https://leetcode.com/problems/sliding-window-maximum/
- (iv) Count subarrays with Target sum -> <a href="https://leetcode.com/problems/subarray-sum-equals-k/">https://leetcode.com/problems/subarray-sum-equals-k/</a>



# **Section 5 : Sorting and Searching:**

(i) Merge Sort->

https://leetcode.com/problems/sort-an-array/

(ii) Quick Sort ->

https://leetcode.com/problems/sort-an-array/

(iii) Quick Select ->

https://leetcode.com/problems/kth-largest-element-in-an-array/

(iv) Count Inversion ->

https://practice.geeksforgeeks.org/problems/inversion-of-array-1587115620/1

(v) Smallest String ->

https://leetcode.com/problems/lexicographically-smallest-string-after-applying-operations/

(vi) Staircase search ->

https://leetcode.com/problems/search-a-2d-matrix/

(vii) ICPC Standings ->

https://www.spoj.com/problems/BAISED/

(viii) Juggling Balls ->

https://leetcode.com/problems/sort-colors/

(ix) Sorting subarray ->

https://leetcode.com/problems/shortest-unsorted-continuous-subarray/

**Section 6 : Binary Search:** 



(i)Search in Rotated sorted array-> <a href="https://leetcode.com/problems/search-in-rotated-sorted-array/">https://leetcode.com/problems/search-in-rotated-sorted-array/</a>

(ii)Square root ->

https://leetcode.com/problems/sqrtx/

(iii) Angry Birds->

https://leetcode.com/problems/magnetic-force-between-two-balls/

## **Section 7: Recursion:**

Permutations(similar)

https://leetcode.com/problems/permutations/

Sudoku

https://leetcode.com/problems/sudoku-solver/

Modulo Exponentiation / Power

https://leetcode.com/problems/powx-n/

N-Queens

https://leetcode.com/problems/n-queens/

Game of coins/ Predict the winner

https://leetcode.com/problems/predict-the-winner/

Rat in a maze

https://practice.geeksforgeeks.org/problems/rat-in-a-maze-problem/1

Longest Path

https://practice.geeksforgeeks.org/problems/longest-path-in-a-matrix3019/1

#### Section 8 : Linked list

Create/design

https://leetcode.com/problems/design-linked-list/



Middle Element

https://leetcode.com/problems/middle-of-the-linked-list/

Kth last element

https://leetcode.com/problems/remove-nth-node-from-end-of-list/

Detect cycle in Linked list

https://leetcode.com/problems/linked-list-cycle/

#### Section 9: Stacks and Queue

First non repeating character

https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream1216/1

Simplify Path

https://leetcode.com/problems/simplify-path/

Stock Span

https://leetcode.com/problems/online-stock-span/

## **Section 10 : Binary Trees:**

Nodes at distance k (similar)

https://leetcode.com/problems/all-nodes-distance-k-in-binary-tree/

Left View

https://practice.geeksforgeeks.org/problems/left-view-of-binary-tree/1

Siblings Swap/flip

https://leetcode.com/problems/flip-equivalent-binary-trees/

Section 11: BST



#### Search element

https://practice.geeksforgeeks.org/problems/search-a-node-in-bst/1

Is BST

https://leetcode.com/problems/validate-binary-search-tree/

Lowest common ancestor

https://practice.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-bst/1

## **Section 12 Priority Queue**

Running Median

https://leetcode.com/problems/find-median-from-data-stream/

Merge k sorted arrays

https://leetcode.com/problems/merge-k-sorted-lists/

Section 13: Hashing

Minimum Bars : (similar ques)

https://leetcode.com/problems/word-break-ii/

Group Anagrams:

https://leetcode.com/problems/group-anagrams/

Longest K sum subarray:

https://leetcode.com/problems/subarray-sum-equals-k/

Section 14: Tries:

https://leetcode.com/problems/maximum-xor-of-two-numbers-in-an-array/

**Section 15: Graphs** 

Snake and ladder game:

https://leetcode.com/problems/snakes-and-ladders/



Largest island:

https://leetcode.com/problems/max-area-of-island/

Astronaut Pairs:

https://www.hackerrank.com/challenges/journey-to-the-moon/problem

Section 16: 1D DP

Frog jump:

https://leetcode.com/problems/jump-game-ii/

Section 17: 2D DP

Coin change 2:

https://leetcode.com/problems/coin-change-2/

Mixtures Spoj:

https://www.spoj.com/problems/MIXTURES/

Edit Distance:

https://leetcode.com/problems/edit-distance/

Wildcard Pattern:

https://leetcode.com/problems/wildcard-matching/

Palindrom Partitioning:

https://leetcode.com/problems/palindrome-partitioning-ii