C.O.D.E

INTERNSHIP AND PLACEMENT PREPARATION MATERIAL

<u>ARRAY</u>

From an Intern and placement perspective, most of the companies won't ask array problems in the hard section i.e., very complex problems. So, for arrays try to explore the **easy and medium problems** much.

Note:

If you have no idea in doing such problems, try to explore the below problems for each day otherwise you can do on your own.

There will be a contest in the array topic at the end of the 4th day. Interested students may participate in that also. Test link will be shared later.

Don't stick only to these questions for preparations. Keep this doc as a kind of guide! You might have seen these problems somewhere already because these are the most standard ones.

We have also attached the links for quantitative and technical aptitude. Try to explore that also.

<u>DAY 1:</u>
Topics to be covered:
- Array Declaration and Initialization
- Array Traversing
- Pointer Reference to Array
- Handling Arrays in Functions
- Array rotations

Problems:
- 5 easy, 2 medium and 1 hard

Easy:

https://leetcode.com/problems/kids-with-the-greatest-number-of-candies/
https://leetcode.com/problems/how-many-numbers-are-smaller-than-the-current-number/
https://leetcode.com/problems/running-sum-of-1d-array/
https://leetcode.com/problems/rotate-array/
https://leetcode.com/problems/valid-mountain-array/

Medium:

https://leetcode.com/problems/divide-array-in-sets-of-k-consecutive-numbers/
https://practice.geeksforgeeks.org/problems/-rearrange-array-alternately/0

Hard:

https://practice.geeksforgeeks.org/problems/next-smallest-palindrome/0

DAY 2:
Topics to be covered:
- Vectors (in C++)
- Matrix
- Dealing with two array concepts

Problems:
- 4 easy, 3 medium and 2 hard

Easy:
>https://leetcode.com/problems/transpose-matrix/
>https://leetcode.com/problems/move-zeroes/
>https://leetcode.com/problems/rank-transform-of-an-array/
>https://leetcode.com/problems/can-place-flowers/
>https://leetcode.com/problems/sort-array-by-parity/

Medium:
>https://leetcode.com/problems/count-number-of-teams/
>https://leetcode.com/problems/queries-on-a-permutation-with-key/
>https://leetcode.com/problems/queens-that-can-attack-the-king/

Hard:
>https://practice.geeksforgeeks.org/problems/merge-two-sorted-arrays/0/

DAY 3:
Topics to be covered:
- Complex problems
- Trapping Rain water sum
- Subset problems

Problems:
- 3 easy, 4 medium and 1 hard

Easy:
>https://leetcode.com/problems/majority-element/
>https://practice.geeksforgeeks.org/problems/spirally-traversing-a-matrix/0
>https://leetcode.com/problems/third-maximum-number/

Medium:

https://www.geeksforgeeks.org/largest-sum-contiguous-subarray/*
https://practice.geeksforgeeks.org/problems/trapping-rain-water/0
https://practice.geeksforgeeks.org/problems/rotate-and-delete/0
https://practice.geeksforgeeks.org/problems/minimum-platforms/0/?track=md-arrays&batchId=144

Hard:

https://leetcode.com/problems/median-of-two-sorted-arrays/

Day - 4:

Problems:

- 3 easy, 5medium.

Easy:

https://leetcode.com/problems/check-if-n-and-its-double-exist/
https://practice.geeksforgeeks.org/problems/max-sum-in-the-configuration/1
https://leetcode.com/problems/fair-candy-swap/

Medium:

https://leetcode.com/problems/container-with-most-water/
https://practice.geeksforgeeks.org/problems/row-with-max-1s/0
https://practice.geeksforgeeks.org/problems/stock-buy-and-sell/0/?track=md-arrays&batchId=144
https://practice.geeksforgeeks.org/problems/overlapping-intervals/0
https://practice.geeksforgeeks.org/problems/kth-smallest-element/0

NOTE:

If you are interested try to explore these links

- https://www.geeksforgeeks.org/must-do-coding-questions-for-companies-like-amazon-microsoft-adobe/?ref=leftbar#arrays
- https://leetcode.com/explore/learn/card/fun-with-arrays/

APTITUDE:

https://www.indiabix.com/aptitude/time-and-distance/
https://www.indiabix.com/aptitude/problems-on-ages/