## Questions to be discussed

## 2D Arrays

1. Print a matrix column wise (Done)
2. Given a n x n matrix, find the sum of all principal and off principal diagonal elements (Done)
3. Print a matrix in zig zag order (L->R->L->R) (Done)
4. Given a n x n matrix, find the transpose of this matrix. (Do this with extra space and without extra space)
5. Boolean matrix sum (Done)
6. Alternate matrix sum

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1. Rotate a matrix 90 degree clockwise
2. Spiral Order Traversal
3. Set matrix zeros Leetcode (With extra space can be done. Constant space -> Food for thought)

## Functions

1. Write a function that takes two ints and computes a^b (a to the power b) —> (Done)
2. Write a function that takes an integer n and returns true if it is prime or false otherwise (Start with basic and go till most optimal)
3. Write a function to reverse an array
4. Write a function to check if a string is a palindrome or not.
5. Write a function to reverse a number

## 1D Arrays

1. Count fraction of positive negative and zeros in array
2. Find index of first peak element in array
3. Find second maximum element in array
4. Check if array is strictly increasing
5. Check if array consists of alternate sign number
6. Given an array of size n , consisting of numbers between 0 and n-1, check if there are duplicate elements
7. Minimum removals to get all array elements as same
8. Get index of first element that is greater than all elements to its left and lesser than all elements to its right. If such number does not exist return -1. You can skip first and last element

## Strings

1. Count number of words in string
2. Capitalize starting of each word in string
3. String assignment questions
4. Check if given string contains all characters from a-z
5. Print all possible non empty substrings of a string (Brute way n3, then n2)
6. Check if string is palindrome or not

## Questions which we will discuss tomorrow (Selecting few good out of above questions)

1. Transpose of matrix (Extra Space & Constant Space)
2. Rotate Matrix 90 clockwise
3. Spiral matrix traversal
4. Get index of first element that is greater than all elements to its left and lesser than all elements to its right. If such number does not exist return -1. You can skip first and last element
5. Find all duplicates (LC 442)
6. Basic function questions if needed (like reversing, palindrome)
7. Sorted insert position array assignment
8. String assignments and someother basic array questions according to time