Arrays Master Checklist

# 1. Basics of Arrays

* ☐ Declaration, Initialization
* ☐ Indexing and Traversal
* ☐ Input/Output
* ☐ Practice: Array Input/Output
* ☐ Practice: Print Elements of Array

# 2. Array Operations

* ☐ Insert/Delete at given position
* ☐ Search (Linear, Binary)
* ☐ Reverse an array
* ☐ Rotate array (left/right by k)
* ☐ Practice: Reverse the Array
* ☐ Practice: Left Rotation by D places
* ☐ Practice: Insert/Delete in Array

# 3. Prefix Sum & Sliding Window

* ☐ Sum of subarrays
* ☐ Fixed size window sum
* ☐ Dynamic sliding window
* ☐ Practice: Maximum Sum Subarray of Size K
* ☐ Practice: Prefix Sum Implementation

# 4. Two Pointer Technique

* ☐ Sorted array pair sum
* ☐ Move zeros to end
* ☐ Remove duplicates
* ☐ Practice: Two Sum Sorted
* ☐ Practice: Remove Duplicates from Sorted Array

# 5. Sorting Algorithms

* ☐ Bubble, Selection, Insertion
* ☐ Merge Sort, Quick Sort (basics)
* ☐ Practice: Sort an array of 0s, 1s and 2s
* ☐ Practice: Kth Largest Element

# 6. Searching Algorithms

* ☐ Binary Search and its applications
* ☐ Search in rotated sorted array
* ☐ Practice: Binary Search
* ☐ Practice: Search Rotated Array

# 7. Important Pattern Problems

* ☐ Kadane’s Algorithm (max subarray sum)
* ☐ Leaders in an array
* ☐ Next Greater Element
* ☐ Practice: Kadane's Algorithm
* ☐ Practice: Next Greater Element

# 8. 2D Arrays (Matrix)

* ☐ Traversal (row-wise, column-wise, diagonal)
* ☐ Spiral traversal
* ☐ Transpose, Rotate, Search
* ☐ Practice: Spiral Matrix
* ☐ Practice: Search in 2D Matrix
* ☐ Practice: Rotate Matrix 90°