Topics for Competitive Programming->

CPP-STL
- array
- vector
- list
- deque
- set
- unordered_set
- map
- unordered_map
- stack
- queue
- priority_queue
- pair
- tuple
- swap, sort, reverse, begin, end, find, copy, accumulate

Number Theory
- Prime Numbers
- GCD
- LCM
- Modular Arithmetic
- Permutation
- Combination

Algorithms
- Searching Algorithms:
  - Linear Search
  - Binary Search
  - Ternary Search
  - Upper Bound
  - Lower Bound
- Sorting Algorithms:
  - Merge
  - Quick
  - Heap
- Two Pointer Technique:
  - Sliding Window
  - Subarray / Substring / Subsequence Counting
- Divide and Conquer
  - Maximum Subarray Sum
- Bitmasking:
  - Basic Operations (AND, OR, XOR, NOT)
  - Bit count
  - Subset
- Greedy Algorithms:
  - Kruskal
  - Prim
  - Dijkstra (for Shortest Paths)
  - Huffman Coding
- Dynamic Programming (DP):
  - Knapsack
  - Longest Common Subsequence (LCS)
  - Longest Increasing Subsequence (LIS)
  - Floyd-Warshall Algorithm (for All-Pairs Shortest Paths)
  - Bellman-Ford Algorithm (for Shortest Paths)
- Graph Algorithms:
  - Breadth-First Search (BFS)
  - Depth-First Search (DFS)
  - Topological Sort
  - Minimum Spanning Tree (MST)
  - Strongly Connected Component (SCC)
  - DAG (Directed Acyclic Graph)
  - Articulation Point
  - Bridge
  - Bidirectional BFS
  - Adjacency Matrix
  - Adjacency List
- Tree Algorithms:
  - Diameter of a Tree
  - Euler Tour
  - Binary Tree Traversals
- Hashing
- Mathematical Algorithms:
  - Sieve of Eratosthenes
  - Euclidean Algorithm

Data Structure
- Trie
- Disjoint Set Union (DSU)
- Segment Tree
- Hash Table

Game Theory
- Minimax Algorithm
- Alpha-Beta Pruning