# AXSOS ACADEMY

## Problem Solving Patterns

# Why to learn Problem Solving Patterns?

- Build an understanding of the pattern so that we can apply that pattern to solve coding problems.

- Help developers to know the area of thinking through keywords and question ideas.

- Optimal solutions

- Those patterns are becoming trending and recommended by popular international tech companies.

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# What is Problem Solving Patterns?

- Each pattern will consist of data structures, algorithms, and analysis techniques to solve a specific category of problems.

- Interview coding problems can be categorized into **16 patterns**.

# 16 Pattern

- Sliding Window

- Two Pointers

- Fast Slow Pointers

- Merge Intervals

- Cycle Sort

- In-place reversal of a LinkedList

- Tree Breadth-First Search

- Tree Depth First Search

- Two Heaps

- Subsets

- Modified Binary Search

- Bitwise XOR

- Top K elements

- K-way merge

- Knapsack

- Topological Sort

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