

45 Days MAANG Prep

Phase 1: DSA Master Revision (Days 1–20)

Goal: Solidify core concepts, revisit patterns, and solve high-frequency problems.

Week 1 (Days 1–7): Pattern-based Revision

- **Day 1:** Sliding Window, Two Pointers (LC: Max Subarray, Container With Most Water)
- **Day 2:** Fast & Slow Pointers, Prefix Sums
- **Day 3:** Binary Search Variants
- **Day 4:** Backtracking (Sudoku Solver, N-Queens)
- **Day 5:** Recursion + Memoization
- **Day 6:** Linked List, Stack, Queue
- **Day 7:** Mixed Pattern Practice (5-7 medium-hard problems)

Week 2 (Days 8–14): Trees, Graphs, and Tricky Patterns

- **Day 8:** Binary Trees + DFS/BFS
- **Day 9:** BST + Balanced Trees (AVL/Red-Black – conceptual)
- **Day 10:** Graph BFS/DFS, Connected Components
- **Day 11:** Topological Sort, Cycle Detection
- **Day 12:** Union-Find, MST
- **Day 13:** Trie, String Matching (KMP, Rabin-Karp)
- **Day 14:** Practice Contest Simulation (90–120 mins)

Week 3 (Days 15–20): Dynamic Programming & High-Freq Topics

- **Day 15:** 1D DP – Climbing Stairs, House Robber
 - **Day 16:** 2D DP – LCS, Knapsack
 - **Day 17:** DP on Strings/Subsets – Palindromic Substrings, Subset Sum
 - **Day 18:** Greedy Techniques – Interval Scheduling, Jump Game
 - **Day 19:** Bit Manipulation
 - **Day 20:** Solve 4-5 Google/Microsoft tagged problems
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Phase 2: System Design from Scratch (Days 21–35)

Goal: Get interview-ready for LLD & HLD basics.



Week 4 (Days 21–27): Low-Level Design (LLD)

- **Day 21:** Intro to OOP + SOLID principles
- **Day 22:** Design Patterns (Singleton, Factory, Observer)
- **Day 23:** Design a Parking Lot
- **Day 24:** Design a Tic-Tac-Toe / Snake-Ladder
- **Day 25:** Design Elevator System
- **Day 26:** LLD Interview Questions
- **Day 27:** Mock LLD Interview



Week 5 (Days 28–35): High-Level Design (HLD)

- **Day 28:** Basics – Scalability, Load Balancers, DB Types
- **Day 29:** Caching, CDNs, Queues, Rate Limiting
- **Day 30:** Design URL Shortener
- **Day 31:** Design Instagram
- **Day 32:** Design Messaging System (WhatsApp)
- **Day 33:** Design YouTube / Google Drive
- **Day 34:** Design HLD of real-world system (your choice)

- **Day 35:** Mock HLD Interview
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Phase 3: Mock Interviews & Refinement (Days 36–45)

Goal: Refine timing, confidence, and behavioral skills.

- **Day 36–38:** DSA Mock Interviews (Peer + Platform-based)
 - **Day 39–41:** System Design Mock Interviews
 - **Day 42:** Resume Review + Behavioral STAR Responses
 - **Day 43:** Mock HR + Behavioral Interview
 - **Day 44:** Final Revision of Weak Topics (DSA + Design)
 - **Day 45:** Full MAANG-style Interview Simulation (DSA + Design + Behavioral)
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