Leetcode plan

To master coding in a short time from beginner to advanced using LeetCode, you need to follow a disciplined study plan. Here's a 12-week plan to help you progress:

Week 1: Basics and Data Structures

Learn basic programming concepts such as variables, conditionals, loops, functions, and arrays.

Start with easy LeetCode problems related to arrays, strings, and basic math.

Get familiar with basic data structures like linked lists, stacks, and queues.

Week 2: Basic Data Structures and Algorithms

Continue practicing easy problems on LeetCode.

Learn about binary trees, hash tables, and basic graph representations.

Get familiar with basic algorithms like binary search, depth-first search (DFS), and breadth-first search (BFS).

Week 3: Intermediate Data Structures and Algorithms

Move on to medium difficulty problems on LeetCode.

Learn about more advanced data structures like heaps, trie, and disjoint-set data structure.

Study algorithms like merge sort, quick sort, and Dijkstra's shortest path.

Week 4: Dynamic Programming

Focus on dynamic programming (DP) problems. Start with basic examples like Fibonacci sequence and climbing stairs.

Study various types of DP problems, such as bottom-up, top-down, and memoization.

Practice medium difficulty DP problems on LeetCode.

Week 5: Greedy Algorithms and Graphs

Learn about greedy algorithms and their applications.

Study advanced graph algorithms like minimum spanning tree (Kruskal's and Prim's), topological sorting, and maximum flow (Ford-Fulkerson).

Practice medium difficulty problems related to greedy algorithms and graph theory on LeetCode.

Week 6: Advanced Topics

Study advanced algorithm concepts like backtracking, bit manipulation, and divide and conquer.

Learn about specialized data structures like segment trees and Fenwick trees.

Practice medium to hard problems on these topics on LeetCode.

Week 7: System Design

Learn the basics of system design, including scalability, availability, and consistency.

Study key components like load balancers, caching, databases, and message queues.

Practice system design problems on LeetCode.

Week 8: Mock Interviews

Start doing timed mock interviews using LeetCode's mock interview feature.

Focus on problem-solving speed and accuracy.

Analyze your performance and identify areas for improvement.

Week 9-11: Targeted Practice and Review

Review the topics you struggled with during the mock interviews.

Practice a mix of easy, medium, and hard problems on those topics.

Continue doing mock interviews to track your progress.

Week 12: Final Preparation

Review your progress and any weak areas.

Focus on improving your speed and accuracy in solving problems.

Practice with more mock interviews.

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Day 1: Arrays

1 - Two Sum

26 - Remove Duplicates from Sorted Array

88 - Merge Sorted Array

118 - Pascal's Triangle

189 - Rotate Array

Day 2: Arrays

238 - Product of Array Except Self

414 - Third Maximum Number

448 - Find All Numbers Disappeared in an Array

485 - Max Consecutive Ones

561 - Array Partition I

Day 3: Strings

28 - Implement strStr()

344 - Reverse String

14 - Longest Common Prefix

387 - First Unique Character in a String

3 - Longest Substring Without Repeating Characters

Day 4: Strings

20 - Valid Parentheses

38 - Count and Say

58 - Length of Last Word

151 - Reverse Words in a String

242 - Valid Anagram

Day 5: Math

7 - Reverse Integer

9 - Palindrome Number

13 - Roman to Integer

66 - Plus One

169 - Majority Element

Day 6: Math

171 - Excel Sheet Column Number

231 - Power of Two

258 - Add Digits

367 - Valid Perfect Square

441 - Arranging Coins

Day 7: Linked Lists

21 - Merge Two Sorted Lists

83 - Remove Duplicates from Sorted List

206 - Reverse Linked List

234 - Palindrome Linked List

160 - Intersection of Two Linked Lists

Day 8: Linked Lists

19 - Remove Nth Node From End of List

24 - Swap Nodes in Pairs

61 - Rotate List

203 - Remove Linked List Elements

328 - Odd Even Linked List

Day 9: Stacks and Queues

155 - Min Stack

232 - Implement Queue using Stacks

225 - Implement Stack using Queues

496 - Next Greater Element I

716 - Max Stack

Day 10: Stacks and Queues

150 - Evaluate Reverse Polish Notation

346 - Moving Average from Data Stream

636 - Exclusive Time of Functions

739 - Daily Temperatures

1019 - Next Greater Node In Linked List

Day 11: Trees

104 - Maximum Depth of Binary Tree

110 - Balanced Binary Tree

226 - Invert Binary Tree

235 - Lowest Common Ancestor of a Binary Search Tree

112 - Path Sum

Day 12: Trees

101 - Symmetric Tree

543 - Diameter of Binary Tree

572 - Subtree of Another Tree

617 - Merge Two Binary Trees

700 - Search in a Binary Search Tree

Day 13: Sorting and Searching

278 - First Bad Version

704 - Binary Search

75 - Sort Colors

283 - Move Zeroes

Day 14: Sorting and Searching

349 - Intersection of Two Arrays

350 - Intersection of Two Arrays II

392 - Is Subsequence

524 - Longest Word in Dictionary through Deleting

658 - Find K Closest Elements

Day 15: Dynamic Programming

70 - Climbing Stairs

198 - House Robber

121 - Best Time to Buy and Sell Stock

746 - Min Cost Climbing Stairs

53 - Maximum Subarray

Day 16: Dynamic Programming

139 - Word Break

300 - Longest Increasing Subsequence

303 - Range Sum Query - Immutable

413 - Arithmetic Slices

509 - Fibonacci Number

Day 17: Greedy Algorithms

455 - Assign Cookies

122 - Best Time to Buy and Sell Stock II

860 - Lemonade Change

392 - Is Subsequence

121 - Best Time to Buy and Sell Stock

Day 18: Greedy Algorithms

605 - Can Place Flowers

763 - Partition Labels

134 - Gas Station

435 - Non-overlapping Intervals

621 - Task Scheduler

Day 19: Graphs

200 - Number of Islands

997 - Find the Town Judge

207 - Course Schedule

210 - Course Schedule II

261 - Graph Valid Tree

Day 20: Graphs

310 - Minimum Height Trees

332 - Reconstruct Itinerary

399 - Evaluate Division

547 - Number of Provinces

684 - Redundant Connection

Day 21: Backtracking

46 - Permutations

78 - Subsets

22 - Generate Parentheses

79 - Word Search

17 - Letter Combinations of a Phone Number

Day 22: Backtracking

39 - Combination Sum

90 - Subsets II

131 - Palindrome Partitioning

216 - Combination Sum III

698 - Partition to K Equal Sum Subsets

Day 23: Bit Manipulation

136 - Single Number

191 - Number of 1 Bits

371 - Sum of Two Integers

461 - Hamming Distance

476 - Number Complement

Day 24: Bit Manipulation

268 - Missing Number

338 - Counting Bits

389 - Find the Difference

405 - Convert a Number to Hexadecimal

693 - Binary Number with Alternating Bits

Day 25: Two Pointers

167 - Two Sum II - Input array is sorted

283 - Move Zeroes

344 - Reverse String

125 - Valid Palindrome

680 - Valid Palindrome II

Day 26: Two Pointers

15 - 3Sum

88 - Merge Sorted Array

141 - Linked List Cycle

283 - Move Zeroes

287 - Find the Duplicate Number

Day 27: Recursion

50 - Pow(x, n)

509 - Fibonacci Number

344 - Reverse String

897 - Increasing Order Search Tree

104 - Maximum Depth of Binary Tree

Day 28: Sliding Window

209 - Minimum Size Subarray Sum

485 - Max Consecutive Ones

3 - Longest Substring Without Repeating Characters

438 - Find All Anagrams in a String

904 - Fruit Into Baskets

Day 29: Trie

208 - Implement Trie (Prefix Tree)

677 - Map Sum Pairs

211 - Design Add and Search Words Data Structure

692 - Top K Frequent Words

720 - Longest Word in Dictionary

Day 30: Heap

215 - Kth Largest Element in an Array

347 - Top K Frequent Elements

23 - Merge k Sorted Lists

378 - Kth Smallest Element in a Sorted Matrix

1046 - Last Stone Weight

Day 31: Union Find

200 - Number of Islands

547 - Friend Circles

684 - Redundant Connection

721 - Accounts Merge

785 - Is Graph Bipartite?

Day 32: Divide and Conquer

23 - Merge k Sorted Lists

53 - Maximum Subarray

169 - Majority Element

240 - Search a 2D Matrix II

241 - Different Ways to Add Parentheses

Day 33: Depth-First Search

98 - Validate Binary Search Tree

200 - Number of Islands

695 - Max Area of Island

733 - Flood Fill

130 - Surrounded Regions

Day 34: Breadth-First Search

102 - Binary Tree Level Order Traversal

127 - Word Ladder

279 - Perfect Squares

690 - Employee Importance

103 - Binary Tree Zigzag Level Order Traversal

Day 35: Dynamic Programming

53 - Maximum Subarray

139 - Word Break

322 - Coin Change

647 - Palindromic Substrings

5 - Longest Palindromic Substring

Day 36: Binary Search

33 - Search in Rotated Sorted Array

74 - Search a 2D Matrix

162 - Find Peak Element

278 - First Bad Version

704 - Binary Search

Day 37: Linked Lists

25 - Reverse Nodes in k-Group

82 - Remove Duplicates from Sorted List II

142 - Linked List Cycle II

430 - Flatten a Multilevel Doubly Linked List

109 - Convert Sorted List to Binary Search Tree

Day 38: Greedy Algorithms

45 - Jump Game II

55 - Jump Game

402 - Remove K Digits

406 - Queue Reconstruction by Height

452 - Minimum Number of Arrows to Burst Balloons

Day 39: Trees

94 - Binary Tree Inorder Traversal

98 - Validate Binary Search Tree

102 - Binary Tree Level Order Traversal

144 - Binary Tree Preorder Traversal

145 - Binary Tree Postorder Traversal

Day 40: Bit Manipulation

137 - Single Number II

201 - Bitwise AND of Numbers Range

260 - Single Number III

421 - Maximum XOR of Two Numbers in an Array

476 - Number Complement

Day 41: Two Pointers

11 - Container With Most Water

42 - Trapping Rain Water

167 - Two Sum II - Input array is sorted

287 - Find the Duplicate Number

680 - Valid Palindrome II

Day 42: Sliding Window

3 - Longest Substring Without Repeating Characters

76 - Minimum Window Substring

209 - Minimum Size Subarray Sum

904 - Fruit Into Baskets

930 - Binary Subarrays With Sum

Day 43: Trie

336 - Palindrome Pairs

648 - Replace Words

677 - Map Sum Pairs

720 - Longest Word in Dictionary

820 - Short Encoding of Words

Day 44: Heap

295 - Find Median from Data Stream

703 - Kth Largest Element in a Stream

846 - Hand of Straights

1046 - Last Stone Weight

1439 - Find the Kth Smallest Sum of a Matrix With Sorted Rows

Day 45: Union Find

261 - Graph Valid Tree

684 - Redundant Connection

721 - Accounts Merge

839 - Similar String Groups

1101 - The Earliest Moment When Everyone Become Friends

Day 46: Depth-First Search

51 - N-Queens

78 - Subsets

417 - Pacific Atlantic Water Flow

494 - Target Sum

797 - All Paths From Source to Target

Day 47: Breadth-First Search

127 - Word Ladder

286 - Walls and Gates

297 - Serialize and Deserialize Binary Tree

752 - Open the Lock

934 - Shortest Bridge

Day 48: Dynamic Programming

62 - Unique Paths

64 - Minimum Path Sum

96 - Unique Binary Search Trees

120 - Triangle

312 - Burst Balloons

Day 49: Binary Search

4 - Median of Two Sorted Arrays

81 - Search in Rotated Sorted Array II

153 - Find Minimum in Rotated Sorted Array

154 - Find Minimum in Rotated Sorted Array II

528 - Random Pick with Weight

Day 50: Linked Lists

2 - Add Two Numbers

23 - Merge k Sorted Lists

92 - Reverse Linked List II

138 - Copy List with Random Pointer

328 - Odd Even Linked List

Day 51: Greedy Algorithms

56 - Merge Intervals

135 - Candy

330 - Patching Array

376 - Wiggle Subsequence

649 - Dota2 Senate

Day 52: Trees

113 - Path Sum II

124 - Binary

3. 70 - Climbing Stairs

279 - Perfect Squares

300 - Longest Increasing Subsequence

Day 49: Binary Search

34 - Find First and Last Position of Element in Sorted Array

153 - Find Minimum in Rotated Sorted Array

162 - Find Peak Element

240 - Search a 2D Matrix II

704 - Binary Search

Day 50: Linked Lists

23 - Merge k Sorted Lists

61 - Rotate List

148 - Sort List

206 - Reverse Linked List

445 - Add Two Numbers II

Day 51: Greedy Algorithms

330 - Patching Array

392 - Is Subsequence

402 - Remove K Digits

659 - Split Array into Consecutive Subsequences

121 - Best Time to Buy and Sell Stock

Day 52: Trees

102 - Binary Tree Level Order Traversal

105 - Construct Binary Tree from Preorder and Inorder Traversal

106 - Construct Binary Tree from Inorder and Postorder Traversal

124 - Binary Tree Maximum Path Sum

222 - Count Complete Tree Nodes

Day 53: Bit Manipulation

78 - Subsets

136 - Single Number

137 - Single Number II

190 - Reverse Bits

191 - Number of 1 Bits

Day 54: Two Pointers

15 - 3Sum

167 - Two Sum II - Input array is sorted

287 - Find the Duplicate Number

345 - Reverse Vowels of a String

454 - 4Sum II

Day 55: Sliding Window

3 - Longest Substring Without Repeating Characters

30 - Substring with Concatenation of All Words

209 - Minimum Size Subarray Sum

424 - Longest Repeating Character Replacement

567 - Permutation in String

Day 56: Trie

208 - Implement Trie (Prefix Tree)

211 - Design Add and Search Words Data Structure

212 - Word Search II

472 - Concatenated Words

648 - Replace Words

Day 57: Heap

215 - Kth Largest Element in an Array

264 - Ugly Number II

347 - Top K Frequent Elements

378 - Kth Smallest Element in a Sorted Matrix

407 - Trapping Rain Water II

Day 58: Union Find

128 - Longest Consecutive Sequence

547 - Number of Provinces

684 - Redundant Connection

1319 - Number of Operations to Make Network Connected

1559 - Detect Cycles in 2D Grid

Day 59: Depth-First Search

39 - Combination Sum

79 - Word Search

200 - Number of Islands

1319 - Number of Operations to Make Network Connected

1559 - Detect Cycles in 2D Grid

Day 60: Breadth-First Search

127 - Word Ladder

207 - Course Schedule

210 - Course Schedule II

513 - Find Bottom Left Tree Value

743 - Network Delay Time