LeetCode刷题分类手册

这是一本指导初学者刷题，并给出刷题顺序和分类的手册。

LeetCode是我们每个CS人都不得不面对的一道坎。但目前1400道LeetCode题足以"劝退"每一个想要在北美找工转码的同学。在盲目开始之前，我们应该先思考如下几个问题：

刷多少题才够？

把一千多题题从头到尾刷完，对大多数人来说，是不现实也不值得提倡的，LeetCode题库相似题型很多，刷题重在总结而不仅仅是数量，所以先给结论：

刷400道高频题完全足够。

要怎么刷才快？

接上面。400道题是否意味着从第1题刷到第400题呢，而高频题又是怎么定义的呢？

——这就是这本手册存在的意义。

一言以蔽之，刷题最重要的是要按分类刷，是要刷高频题，是要得出最优解，也要有高效率的重复和高质量的总结。基于此，我们把 LeetCode做了一个分类：

1. 400题是我们从LeetCode1-1000题里挑选出来的高频（面试常出现）或有代表性（代表一整类题型）的题目。
2. 对上述400题，本手册以tag为依据分大类，再以题型为依据分小类、旨在提供科学、高效的刷题顺序。

关于我们

如果有同学想看到这些高频题的最优解讲解视频，请到**www.flageek996.com**购买后观看。

如果觉得直接上手LeetCode吃力，我们有算法专题课程（CS301A和CS301B）作为过渡；如果某一块知识点是短板，那么专题系列课程（CS202/CS203/CS204/CS205）就是你的选择；对于刷题已经过关的同学，简历修改服务（CS105）和模拟面试服务（CS502）也值得尝试。

这本刷题手册的内容会持续更新，题目也会不断补充。所有信息会统一在公众号和小助手朋友圈发布，欢迎大家围观：

小助手微信：flageek996
公众号：FLAGeek频道

小助手微信　　　　　　　　　　　　　微信公众号

String

CS301B Chapter 2	
14	Longest Common prefix
58	Length Of Last Word
387	First Unique Character in a String
383	Ransom Note
415	Add Strings
205	Isomorphic Strings
451 ✓	Sort Characters By Frequency
293	Flip Game
294	Flip Game ||
290	Word Pattern
249	Group Shifted Strings
161	One Edit Distance
819	Most Common Word
38 ✓	Count and Say
771	Jewels and Stones
316 ✓	Remove Duplicate Letters
168	Excel Sheet Column Title
171	Excel Sheet Column Number
13	Roman to Integer
12	Integer to Roman
246	Strobogrammatic Number
247	Strobogrammatic Number ||
248	Strobogrammatic Number |||
157	Read N Characters Given Read4
539 ✓	Minimum Time Difference
556 ✓	Next Greater Element |||
395 ✓	Longest Substring with At Least K Repeating Characters
419 ✓	Battleships in a Board
1055	Shortest Way to Form String
String类之翻转	
344	Reverse String
151 ✓	Reverse Words in a String
186	Reverse Words in a String ||
557	Reverse Words in a String |||
345	Reverse Vowels of a String

CS301B Chapter 2	
541	Reverse String ||
String类之回文类	
125	Valid Palindrome
266	Palindrome Permutation
5 ✓	Longest Palindromic Substring
9	Palindrome Number
516 ✓	Longest Palindromic Subsequence
647 ✓	Palindromic Substrings
336 ✗	Palindrome Pairs
680	Valid Palindrome ||
String类之子序列	
392	Is Subsetence
115 ✗	Distinct Subsequences
334 ✓	Increasing Triplet Subsequence
String类之括号类问题	
20	Valid Parentheses
32 ✗	Longest Valid Parenthese
301 ✗	Remove Invalid Parentheses
241	Different Ways to Add Parentheses
String类之加密与解密	
271	Encode and Decode Strings
443 ✓	String Compression
535	Encode and Decode TinyURL
394	Decode String
820 ✓	Short Encoding of Words
String类之Anagrams	
242	Valid Anagram
49 ✓	Group Anagrams
438	Find All Anagrams in a String
String类之子集类问题	
28	Implement strStr()
3 ✓	Longest Substring Without Repeating Characters
340	Longest Substring with At Most K Distinct Characters
395	Longest Substring with At Least K Repeating Characters
159	Longest Substring with At Most Two Distinct Characters
76 ✗	Minimum Window Substring

CS301B Chapter 2	
巩固练习	
1004	Max Consecutive Ones |||
811	Subdomain Visit Count
761	Special Binary String
981	Time Based Key-Value Store

Binary Search

		CS301B Chapter 1
	704	Binary Search
✓	278	First Bad Version
	35	Search Insert Position
✓	33	Search in Rotated Sorted Array
✓	81	Search in Rotated Sorted Array
✓	153	Find Minimum in Rotated Sorted Array
☆	154	Find Minimum in Rotated Sorted Array ||
✓	528	Random Pick with Weight
✓	162	Find Peak Element
✓	34	Search for a Range
	349	Intersection of Two Arrays
	350	Intersection of Two Arrays ||
☆	410	Split Array Largest Sum
✓	658	Find K Closest Elements
	1060	Missing Element in Sorted Array
✓	1011	Capacity To Ship Packages Within D Days
☆	315	Count of Smaller Numbers After Self
	875	Koko Eating Bananas

LinkedList

		CS301A Chapter 3 & CS301B Chapter 3
✓	876	Middle of the Linked List
	2	Add Two Numbers
	445	Add Two Numbers ||
✓	21	Merge Two Sorted Lists
	369	Plus One Linked List
✓	160	Intersection of Two Linked Lists
✓	24	Swap Nodes in Pairs
✓	328	Odd Even Linked List
✓	206	Reverse Linked List
✓	92	Reverse Linked List ||
✓	141	Linked List Cycle
✓	61	Rotate List
✓	19	Remove Nth Node from End of List
	708	Insert into a Sorted Circular Linked List
	234	Palindrome Linked List
✓	138	Copy List with Random Pointer
	237	Delete Node in a Linked List
	86	Partition List
✓	430	Flatten a Multilevel Doubly Linked List
✰	23	Merge K Sorted Lists
✰	25	Reverse Nodes in k-Group

Matrix

	48	Rotate Image
	54	Spiral Matrix
	59	Spiral Matrix ||
✓	74	Search a 2D Matrix
✓	240	Search a 2D Matrix ||
✓	498	Diagonal Traverse
	311	Sparse Matrix Multiplication
	79	Word Search
✓	36	Valid Sudoku
☆	37	Sudoku Solver

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Math

✓	1		Two sum
	167		Two Sum II - Input array is sorted
✓	15		3Sum
	16		3Sum Closest
	259		3Sum Smaller
✓	18		4Sum
✓	560		Subarray Sum Equals K
✓	525		Contiguous Array
	523		Continuous Subarray Sum
	412		Fizz Buzz
	7		Reverse Integer
	165		Compare Version Numbers
	66		Plus One
✓	8		String to Integer (atoi)
	258		Add Digits
	67		Add Binary
✓	43		Multiply Strings
	29		Divide Two Integers
	69		Sqrt(x)
✓	50	☆	Pow(x,n)
	204		Count Primes
	836		Rectangle Overlap
	414		Third Maximum Number
	593		Valid Square
	892		Surface Area of 3D Shapes
✓	390		Elimination Game
	628		Maximum Product of Three Numbers
☆	780		Reaching Points
☆	829		Consecutive Numbers Sum
	991		Broken Calculator
	1041		Robot Bounded In Circle

Array

CS301A Chapter 2	
27	Remove Element
26	Remove Duplicate from Sorted Array
80	Remove Duplicate from Sorted Array ||
316	Remove Duplicate Letters
442	Find All Duplicates in an Array
448	Find All Numbers Disappeared in an Array
325	Maximum Size Subarray Sum Equals k
581	Shortest Unsorted Continuous Subarray
277	Find the Celebrity
189	Rotate Array
384	Shuffle an Array
hard41	First Missing Positive
299	Bulls and Cows
845	Longest Mountain in Array
134	Gas Station
118	Pascal's Triangle
119	Pascal's Triangle ||
169	Majority Element
229	Majority Element ||
274	H-Index
275	H-Index ||
243	Shortest Word Distance
244	Shortest Word Distance ||
245	Shortest Word Distance |||
217	Contains Duplicate
219	Contains Duplicate ||
220	Contains Duplicate |||
55	Jump Game
45	Jump Game ||
307	Range Sum Query - Mutable
308	Range Sum Query 2D - Mutable
121	Best Time to Buy and Sell Stock
122	Best Time to Buy and Sell Stock ||
123	Best Time to Buy and Sell Stock |||
188	Best Time to Buy and Sell Stock IV

DP

	309	Best Time to Buy and Sell Stock with Cooldown
✓	11	Container With Most Water
DP	42	Trapping Rain Water
	334	Increasing Triplet Subsequence
✓	128	Longest Consecutive Sequence
	287	Find the Duplicate Number
	611	Valid Triangle Number
☆	239	Sliding Window Maximum
☆	295	Find Median from Data Stream
	53	Maximum Subarray
	325	Maximum Size Subarray Sum Equals k
✓	209	Minimum Size Subarray Sum
✓	238	Product of Array Except Self
✓	152	Maximum Product Subarray
	228	Summary Ranges
	巩固练习	
	532	K-diff Pairs in an Array
✓	713	Subarray Product Less Than K
✓	974	Subarray Sums Divisible by K
☆	945	Minimum Increment to Make Array Unique
	406	Queue Reconstruction by Height
	621	Task Scheduler
☆ DP	321	Create Maximum Number
☆	403	Frog Jump
	289	Game of Life
✓	1029	Two City Scheduling
	1052	Grumpy Bookstore Owner
	755	Pour Water
✓	986	Interval List Intersections
	953	Verifying an Alien Dictionaryy
✓	939	Minimum Area Rectangle
	733	Flood Fill
	697	Degree of an Array
	723	Candy Crush
✓	957	Prison Cells After N Days
	1031	Maximum Sum of Two Non-Overlapping Subarrays
	1007	Minimum Domino Rotations For Equal Row

CS301A Chapter 2	
1167	Minimum Cost to Connect Sticks
1010	Pairs of Songs With Total Durations Divisible by 60
4 二分	Median of Two Sorted Arrays
Array类之Interval	
56	Merge Intervals
252	Meeting Rooms
253	Meeting Rooms ||
57	Insert Interval
Array类之Sort	
88	Merge Sorted Array
75	Sort Colors
283	Move Zeros
280	Wiggle Sort
324	Wiggle Sort ||

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Tree

		CS301A Chapter 6 & CS301B Chapter 9
✓	94	Binary Tree Inorder Traversal
✓	95	Unique Binary Search Trees ||
✓	144	Binary Tree Preorder Traversal
✓	145	Binary Tree Postorder Traversal
	314	Binary Tree Vertical Order Tradersal
	366	Find Leaves of Binary Tree
	333	Largest BST Subtree
		Tree类之"人字形"（第一类）
✓	104	Maximum Depth of Binary Tree
✓	111	Minimum Depth of Binary Tree
✓	543	Diameter of Binary Tree
✓	572	Subtree of Another Tree
✓	110	Balanced Binary Tree
	250	Count Univalue Subtrees
✗	124	Binary Tree Maximum Path Sum
	235	Lowest Common Ancestor of a Binary Search Tree
✓	236	Lowest Common Ancestor of a Binary Tree
✓	98	Validate Binary Search Tree
	270	Closest Binary Search Tree Value
		Tree类之"前缀路径问题"（第二类）
	112	Path Sum
✓	113	Path Sum ||
✓	437	Path Sum |||
✓	129	Sum Root to Leaf Numbers
	257	Binary Tree Paths
	298	Binary Tree Longest Consecutive Sequence
		Tree类之"BST中的Inorder,Successor, Predecessor问题"（第三类）
	285	Inorder Successor in BST
	510	Inorder Successor in BST ||
	272	Closest Binary Search Tree Value ||
✓	230	Kth Smallest Element in a BST
	173	Binary Search Tree Iterator
	450	Delete a Node in a BST
✓	99	Recover Binary Search Tree
✓	114	Flatten Binary Tree to Linked List

		CS301A Chapter 6 & CS301B Chapter 9
		Tree类之"序列化Serialization"（第四类）
✓	105	Construct Binary Tree from Preorder and Inorder Traversal
✓	106	Construct Binary Tree from Inorder and Postorder Traversal
	538	Convert BST to Greater Tree
✓	108	Convert Sorted Array to Binary Search Tree
✓	109	Convert Sorted List to Binary Search Tree
✓	297	Serialize and Deserialize Binary Tree
		Tree类之"去序列化Deserialization"（第五类）
	449	Serialize and Deserialize Binary Search Tree
	428	Serialize and Deserialize N-ary Tree
		Tree类之"Level Order"（第六类）
✓	107	Binary Tree Level Order Traversal ||
✓	103	Binary Tree Zigzag Level Order Traversal
✓	199	Binary Tree Right Side View
	222	Count Complete Tree Nodes
	102	Binary Tree Level Order Traversal
		巩固练习
	100	Same Tree
	101	Symmetric Tree
✓	226	Invert Binary Tree
	255	Verify Preorder Sequence in Binary Search Tree
✓	116	Populating Next Right Pointers in Each Node
✓	117	Populating Next Right Pointers in Each Node ||
	426	Convert Binary Search Tree to Sorted Doubly Linked List
✓	958	Check Completeness of a Binary Tree
	637	Average of Levels in Binary Tree
	96	Unique Binary Search Trees
✓	1130	Minimum Cost Tree From Leaf Values
	1110	Delete Nodes And Return Forest
☆	987	Vertical Order Traversal of a Binary Tree
	545	Boundary of Binary Tree
	742	Closest Leaf in a Binary Tree
	156	Interleaving String

DFS & BFS

	DFS类之"0/1 DFS" （第一类）	
	78	Subsets
	77	Combinations
✓	40	Combination Sum ||
✓	216	Combination Sum |||
	DFS类之"多叉DFS" （第二类）	
	39	Combination Sum
	254	Factor Combinations
✓	322	Coin Change
✓	90	Subsets ||
	DFS类之"Selecting DFS" （第三类）	
✓	46	Permutations
✓	47	Permutations ||
✓	31	Next Permutation
	DFS类之"连通分量搜索" （第四类）	
✓	200	Number of Islands
	305	Number of Islands ||
	286	Walls and Gates
✓	130	Surrounded Regions
	695	Max Area of Island
	巩固练习	
✓	547	Friend Circles
✓	529	Mine Sweeper
	306	Additive Number
✓	337	House Robber |||
	425	Word Squares
	339	Nested List Weight Sum
✓	341	Flatten Nested List Iterator
	364	Nested List Weight Sum ||
	51	N-Queens
✓	79	Word Search
☆	140	Word Break ||
✓	131	Palindrome Partitioning
	267	Palindrome Partitioning ||

		CS301B Chapter 5
✓	17	Letter Combinations of a Phone Number
✓	93	Restore IP Addresses
	694	Number of Distinct Islands
	698	Partition to K Equal Sum Subsets
✓	863	All Nodes Distance K in Binary Tree
✓	721	Accounts Merge
✓	797	All Paths From Source to Target
☆	1096	Brace Expansion ||
☆	329	Longest Increasing Path in a Matrix
	351	Android Unlock Patterns
☆	212	Word Search ||
		BFS CS301B Chapter 5
	785	Is Graph Bipartite?
	958	Check Completeness of a Binary Tree
☆	127	Word Ladder
☆	126	Word Ladder ||
✓	210	Course Schedule ||
	490	The Maze
✓	784	Letter Case Permutation
✓	417	Pacific Atlantic Water Flow
	317	Shortest Distance from All Buildings
	909	Snakes and Ladders
	994	Rotting Oranges

Stack

CS301A Chapter 5 & CS301B Chapter 7	
225	Implement Stack using Queues
232	Implement Queue using stacks
150	Evaluate Reverse Polish Notation
155	Min Stack
716	Max Stack
636	Exclusive Time of Functions
1047	Remove All Adjacent Duplicates in String
402	Remove K Digits
71	Simplify Path
224	Basic Calculator
227	Basic Calculator ||
739	Daily Temperatures
735	Asteroid Collision
772	Basic Calculator |||

PriorityQueue

CS301B Chapter 7	
332	Reconstruct Itinerary
347	Top K Frequent Elements
692	Top K Frequent Words
973	K Closest Points to Origin
373	Find K Pairs with Smallest Sums
215	Kth Largest Element in an Array
218	The Skyline Problem
414	Third Maximum Number
787	Cheapest Flights Within K Stops
378	Kth Smallest Element in a Sorted Matrix
759	Employee Free Time

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DP

CS205 DP专题	
62	Unique Paths
63	Unique Paths ||
70	Climbing Stairs
120	Triangle
321	Create Maximum Number
518	Coin Change 2
139	Word Break
279	Perfect Squares
64	Minimum Path Sum
256	Paint House
718	Maximum Length of Repeated Subarray
416	Partition Equal Subset Sum
304	Range Sum Query 2D - Immutable
486	Predict the Winner
312	Burst Balloons
72	Edit Distance
221	Maximal Square
85	Maximal Rectangle
276	Paint Fence
198	House Robber
213	House Robber ||
53	Maximum Subarray
152	Maximum Product Subarray
1027	Longest Arithmetic Sequence
1048	Longest String Chain
10	Regular Expression Matching
740	Delete and Earn
97	Interleaving String

Bit Manipulation

421	Maximum XOR of Two Numbers in an Array
89	Gray Code
190	Reverse Bits
191	Number of 1 Bits
201	Bitwise AND of Numbers Range

Design

380	Insert Delete GetRandom O(1)
346	Moving Average from Data Stream
622	Design Circular Queue
641	Design Circular Deque
705	Design HashSet
706	Design HashMap
353	Design Snake Game
348	Design Tic-Tac-Toe
362	Design Hit Counter
379	Design Phone Directory
381	Insert Delete GetRandom O(1) - Duplicates Allowed
359	Logger Rate Limiter
170	Two Sum ||| - Data structure Design
207	Course Schedule
208	Implement Trie(Prefix Tree)
211	Add and Search Word - Data structure design
251	Flatten 2D Vector
1188	Design Bounded Blocking Queue
472	Concatenated Words 2
1114	Print in Order
146	LRU Cache
460	LFU Cache
642	Design Search Autocomplete System
281	Zigzag Iterator
284	Peeking Iterator
269	Alien Dictionary

Graph

✓	785	Is Graph Bipartite?
	323	Number of Connected Components in an Undirected Graph
	261	Graph Valid Tree
	399	Evaluate Division