

LeetCode Questions: Beginner to Advanced with Sample Questions

Data Structures and Algorithms:

Beginner (Easy)

- Two Sum: Find two numbers in an array that add up to a specific target.
- Reverse Integer: Reverse the digits of an integer.
- Merge Two Sorted Lists: Merge two sorted linked lists into one sorted linked list.
- Valid Parentheses: Check if a string of parentheses is valid.
- Remove Duplicates from Sorted Array: Remove duplicates from a sorted array in-place.

Intermediate (Medium)

- Longest Substring Without Repeating Characters: Find the length of the longest substring without repeating characters.
- 3Sum: Find all unique triplets in an array that give the sum of zero.
- Container With Most Water: Find two lines that together with the x-axis form a container, containing the most water.
- Word Search: Find if a word exists in a grid of characters.
- Unique Paths: Find the number of unique paths in a grid from the top-left to the bottom-right corner.

Advanced (Hard)

- Trapping Rain Water: Compute how much water it is possible to trap between heights represented by an array.
- Merge k Sorted Lists: Merge `k` sorted linked lists into one sorted linked list.
- Longest Valid Parentheses: Find the length of the longest valid (well-formed) parentheses substring.
- Minimum Window Substring: Find the minimum window in a string that contains all the characters of another string.
- Word Ladder II: Find all shortest transformation sequences from `beginWord` to `endWord`.

Graph Problems:

Beginner (Easy)

- Find the Town Judge: In a town of `n` people, find the judge, who is trusted by everyone except themselves.
- Island Perimeter: Given a grid representing a map of a city, return the perimeter of the island.
- Graph Valid Tree: Given `n` nodes and edges, determine if the graph is a valid tree.
- Find Center of Star Graph: Given the edges of a star-shaped graph, find the center node.

- Course Schedule: Determine if you can finish all courses given their prerequisites.

Intermediate (Medium)

- Pacific Atlantic Water Flow: Find all cells in a matrix where water can flow to both the Pacific and Atlantic oceans.
- Graph Bipartite: Determine if a graph is bipartite.
- Redundant Connection: Given a tree, find an edge that can be removed to make the tree valid.
- Word Ladder: Find the shortest transformation sequence from the beginning word to the ending word using a dictionary.
- Course Schedule II: Determine the order of courses to be taken given their prerequisites.

Advanced (Hard)

- Alien Dictionary: Given a sorted dictionary of an alien language, determine the order of characters.
- Minimum Cost to Cut a Stick: Given a stick of length `n` and several cuts, determine the minimum cost to cut the stick.
- Reconstruct Itinerary: Given a list of airline tickets, reconstruct the itinerary in the correct order.
- Minimum Knight Moves: Find the minimum number of moves a knight needs to reach a target position on a chessboard.
- Sliding Puzzle: Solve a sliding puzzle represented by a 3x3 grid.