Analysis of LeetCode Problems

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IST 421 - Information Visualization

STORY

One LeetCode problem a day keeps unemployment away. The data visualization found that some specific topics/tags on this platform need more programmers' time and effort to study and master to have a higher chance of passing technical interviews during a short preparation time frame.
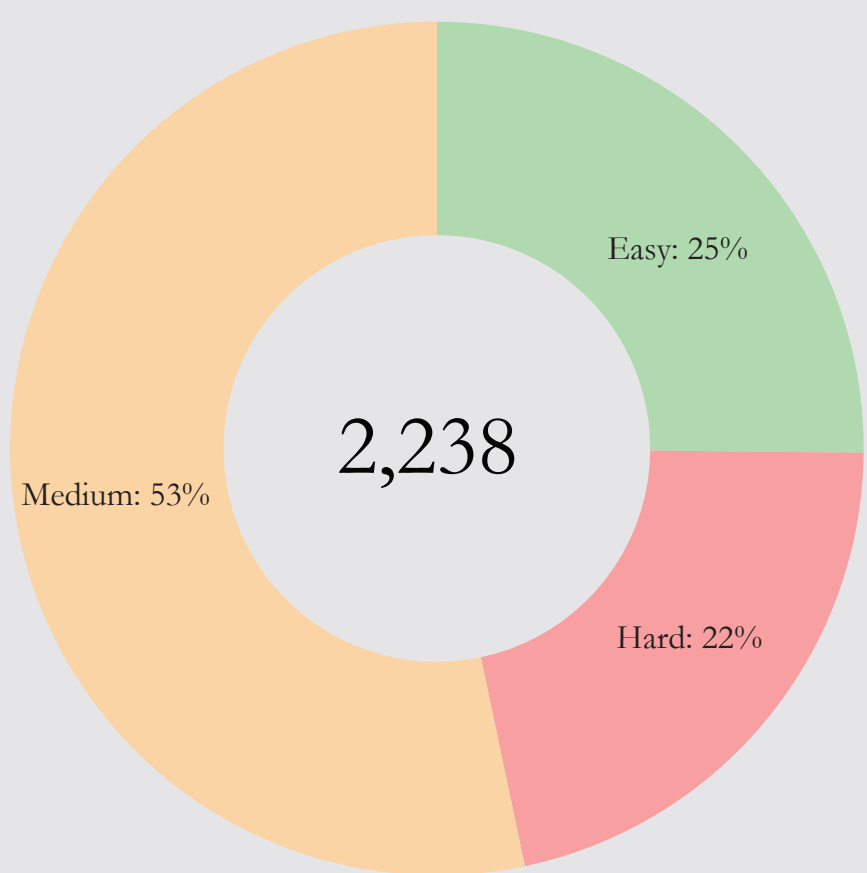
MOTIVATION

This information visualization is helpful to anyone who wants to practice their programming skills by solving coding questions on LeetCode. It provides an overview of 2,000+ LeetCode problems and points out the most critical questions and programming concepts for technical interviews.
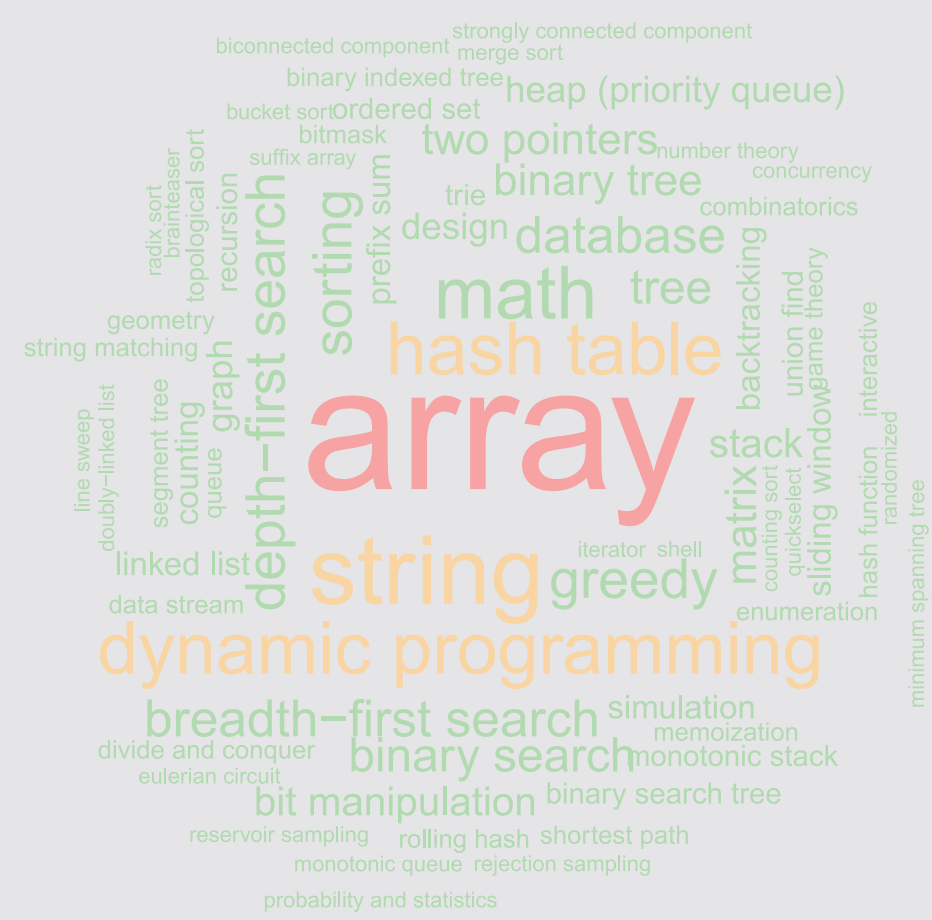
DATA DESCRIPTION

This LeetCode Problems dataset was updated in April 2022 with 2,238 rows and 14 columns. Each row contains a unique LeetCode question and metadata, including question text, difficulty level, tagged topics, etc. The variable data types are character, numeric, and integer.
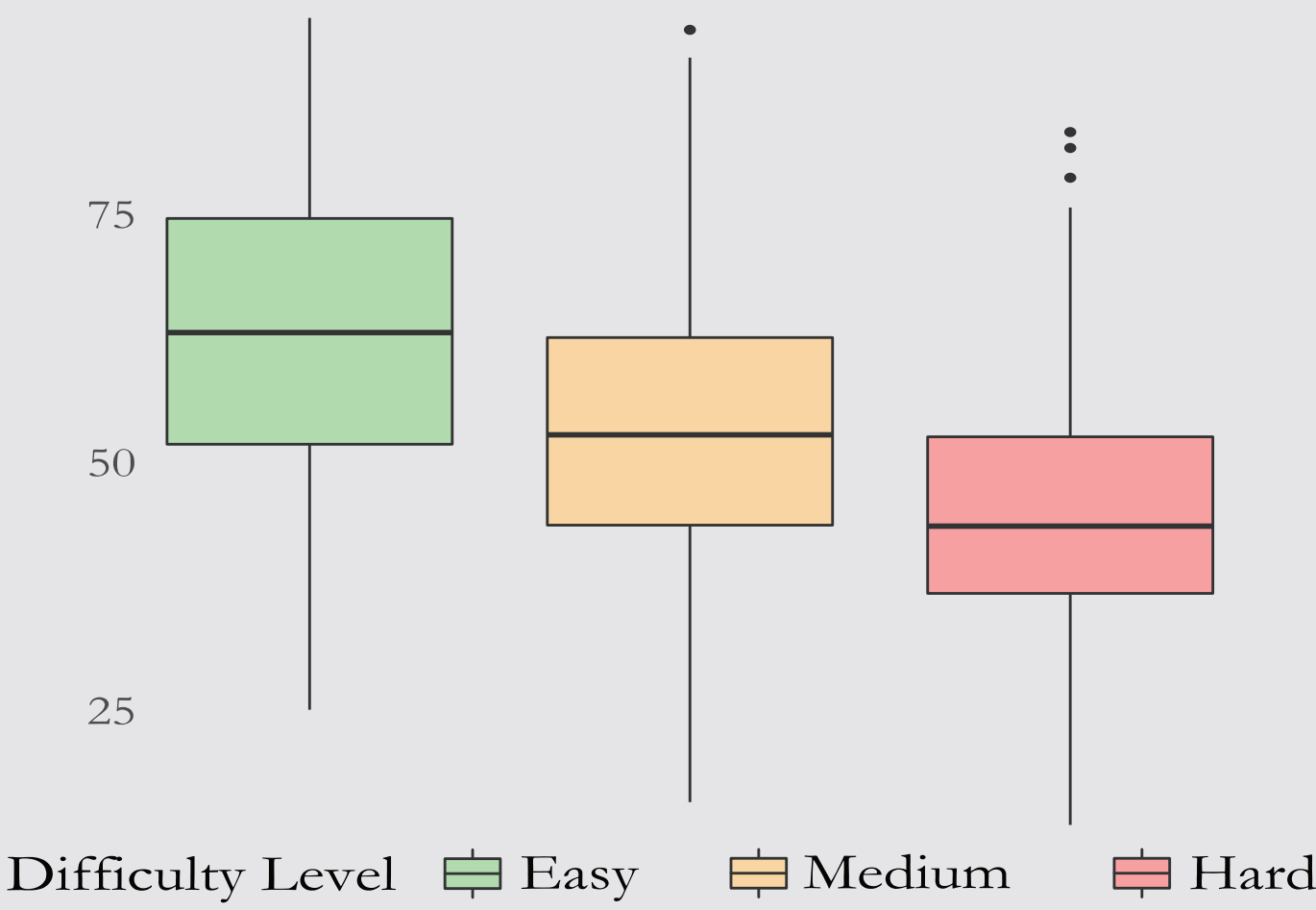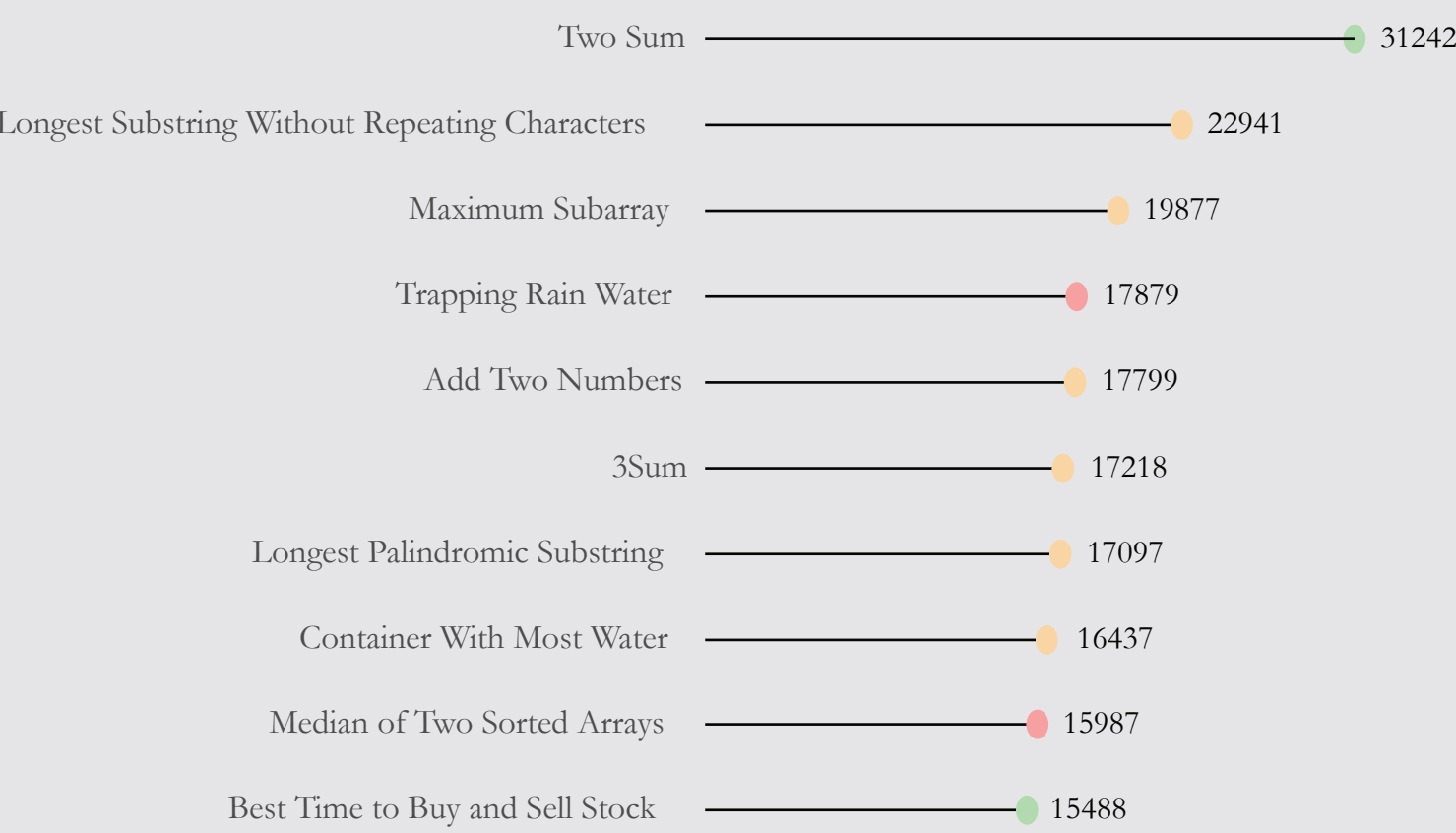
Number of Problems

Easy: 25%
Medium: 53%
Hard: 22%
2,238

Data Structure/Algorithm Tags

Problem Success Rates

Difficulty Level: Easy, Medium, Hard

Top 10 Most-Liked Problems

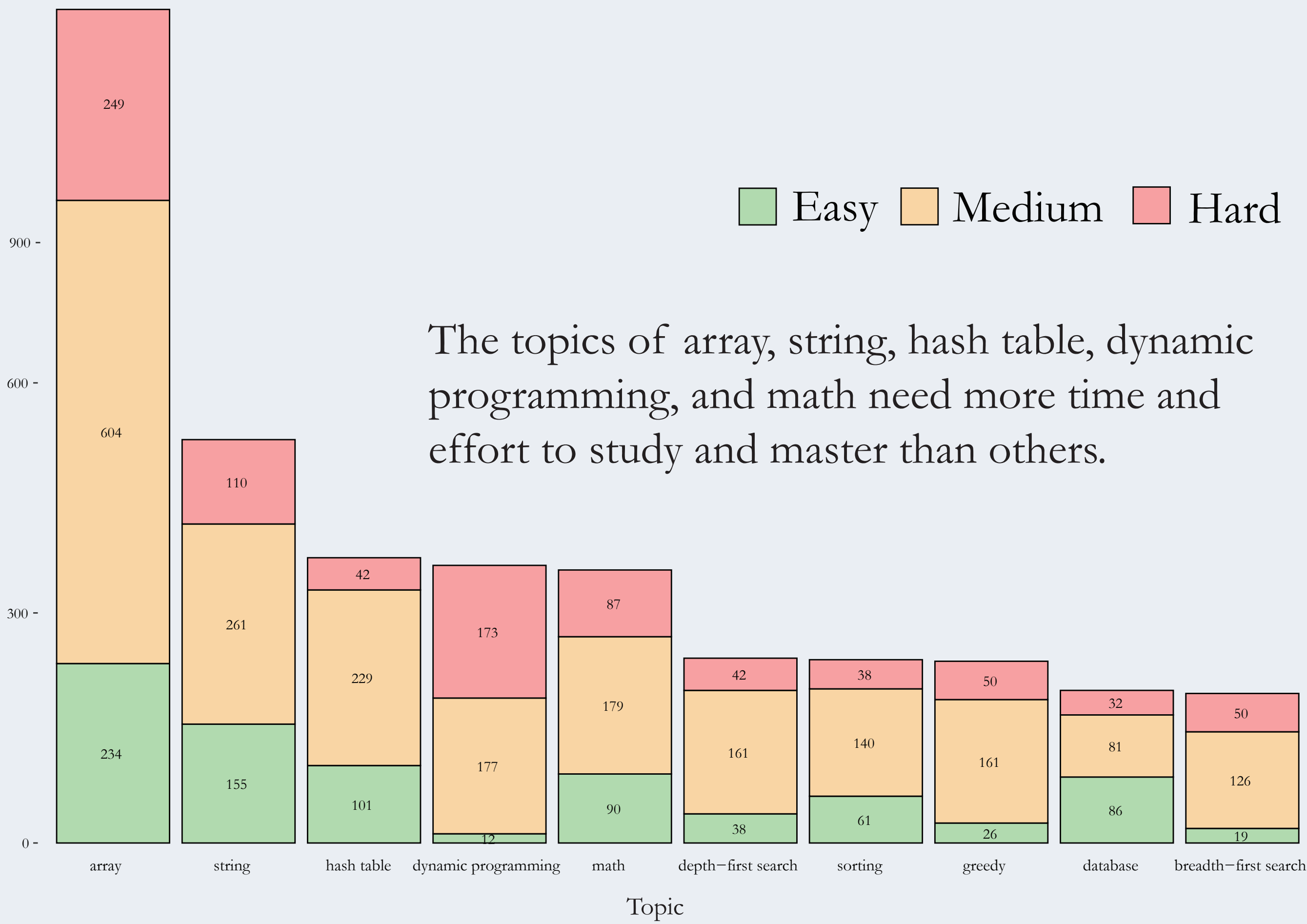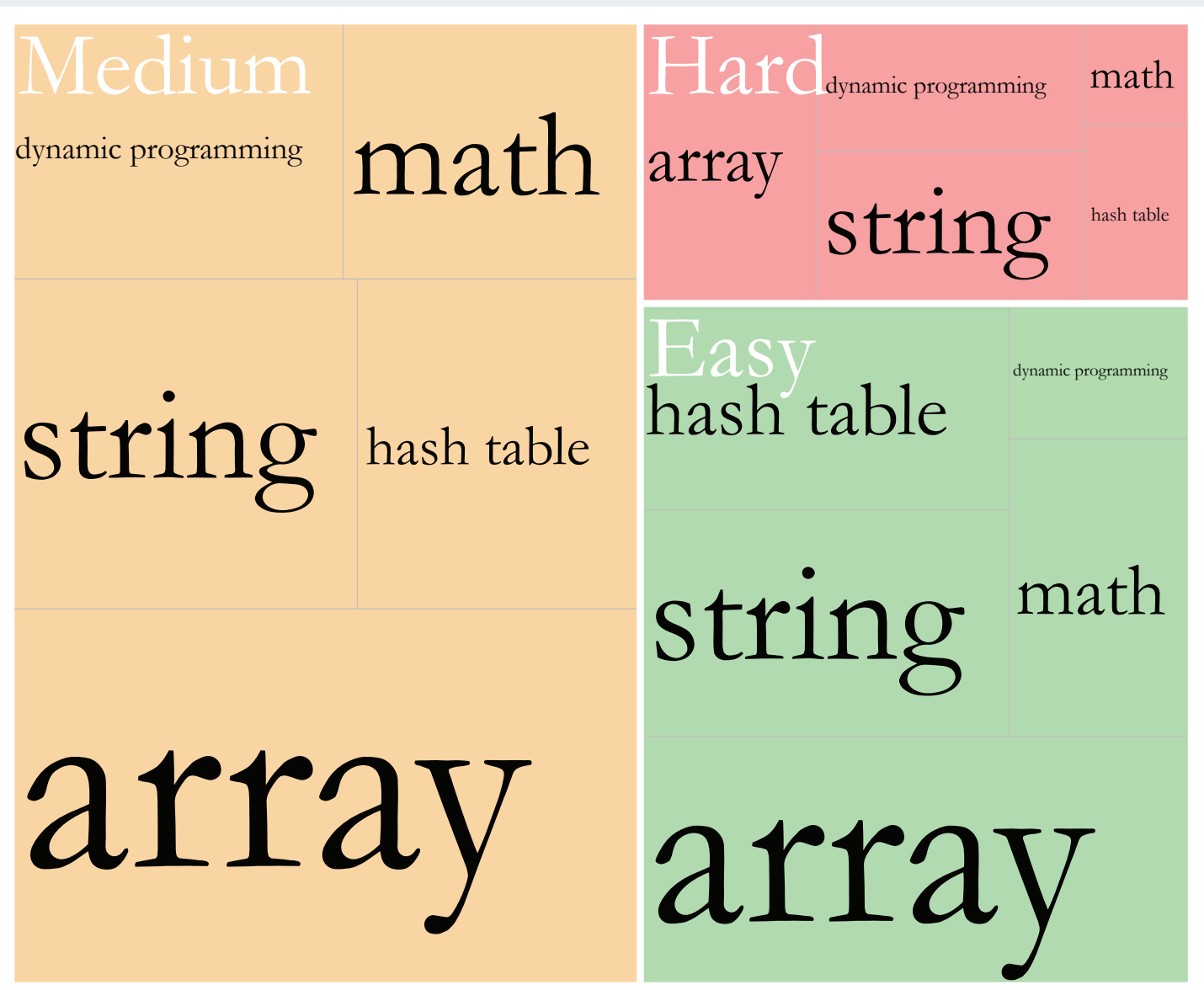| Problem	Value
Two Sum	31242
Longest Substring Without Repeating Characters	22941
Maximum Subarray	19877
Trapping Rain Water	17879
Add Two Numbers	17799
3Sum	17218
Longest Palindromic Substring	17097
Container With Most Water	16437
Median of Two Sorted Arrays	15987
Best Time to Buy and Sell Stock	15488

KEY QUESTION:

which topics/tags need much more attention and time than others to study and practice?

Total Questions From Top 10 Leading Topics on Leetcode at Each Difficulty Level

Legend: Easy, Medium, Hard

The topics of array, string, hash table, dynamic programming, and math need more time and effort to study and master than others.

Topic

Hierarchical Data of Problem Solution Submissions From Most Popular Tags on Leetcode at Each Difficulty Level

Medium: dynamic programming, math, string, hash table, array
Hard: dynamic programming, math, array, string, hash table
Easy: hash table, dynamic programming, string, math, array

Additionally, it's important to practice more medium-level problems as they have the highest solution submission proportion among difficulty levels.