Homework Questions

Hui Duan

https://leetcode.com/problems/maximum-subarray/

53. Maximum Subarray

Easy 5217 208 Favorite Share

Given an integer array `nums`, find the contiguous subarray (containing at least one number) which has the largest sum and return its sum.

Example:

```
Input: [-2,1,-3,4,-1,2,1,-5,4],
Output: 6
Explanation: [4,-1,2,1] has the largest sum = 6.
```

https://leetcode.com/problems/min-cost-climbing-stairs/

746. Min Cost Climbing Stairs

Easy 1268 296 Favorite Share

On a staircase, the `i` -th step has some non-negative cost `cost[i]` assigned (0 indexed).

Once you pay the cost, you can either climb one or two steps. You need to find minimum cost to reach the top of the floor, and you can either start from the step with index 0, or the step with index 1.

Example 1:

```
Input: cost = [10, 15, 20]
Output: 15
Explanation: Cheapest is start on cost[1], pay that cost and go to the top.
```

https://leetcode.com/problems/house-robber-ii/

213. House Robber II

Medium 1089 38 Favorite Share

You are a professional robber planning to rob houses along a street. Each house has a certain amount of money stashed. All houses at this place are **arranged in a circle.** That means the first house is the neighbor of the last one. Meanwhile, adjacent houses have security system connected and **it will automatically contact the police if two adjacent houses were broken into on the same night**.

Given a list of non-negative integers representing the amount of money of each house, determine the maximum amount of money you can rob tonight **without alerting the police**.

https://leetcode.com/problems/longest-common-subsequence/

1143. Longest Common Subsequence

Medium 229 8 Favorite Share

Given two strings `text1` and `text2`, return the length of their longest common subsequence.

A *subsequence* of a string is a new string generated from the original string with some characters(can be none) deleted without changing the relative order of the remaining characters. (eg, "ace" is a subsequence of "abcde" while "aec" is not). A *common subsequence* of two strings is a subsequence that is common to both strings.

If there is no common subsequence, return 0.

https://leetcode.com/problems/shortest-common-supersequence/

1092. Shortest Common Supersequence

Hard 184 6 Favorite Share

Given two strings `str1` and `str2`, return the shortest string that has both `str1` and `str2` as subsequences. If multiple answers exist, you may return any of them.

(A string S is a subsequence of string T if deleting some number of characters from T (possibly 0, and the characters are chosen anywhere from T) results in the string S.)

Example 1:

```
Input: str1 = "abac", str2 = "cab"
Output: "cabac"
Explanation:
str1 = "abac" is a subsequence of "cabac" because we can delete
the first "c".
str2 = "cab" is a subsequence of "cabac" because we can delete the
last "ac".
The answer provided is the shortest such string that satisfies
these properties.
```