leetcode前25题部分整理

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| 1. Two Sum(easy)  Given nums = [2, 7, 11, 15], target = 9,  Because nums[0] + nums[1] = 2 + 7 = 9, return [0, 1].  采用map自动建立key-value的对应；  //设vector<int>nums={2,3,6}，target=5;  捕获.JPG |
| 3.  Longest Substring Without Repeating Characters(medium)  Given a string, find the length of the **longest substring** without repeating characters.  **Examples:**  Given "abcabcbb", the answer is "abc", which the length is 3.  Given "bbbbb", the answer is "b", with the length of 1.  Given "pwwkew", the answer is "wke", with the length of 3. Note that the answer must be a **substring**, "pwke" is a *subsequence* and not a substring.  捕获.JPG |
| 4. Median of Two Sorted Arrays(hard)  There are two sorted arrays **nums1** and **nums2** of size m and n respectively.  Find the median of the two sorted arrays. The overall run time complexity should be O(log (m+n)). |
| 5. Longest Palindromic Substring(medium)  Given a string **s**, find the longest palindromic substring in **s**. You may assume that the maximum length of **s** is 1000.  捕获.JPG |
| 6. ZigZag Conversion(medium)  The string "PAYPALISHIRING" is written in a zigzag pattern on a given number of rows like this: (you may want to display this pattern in a fixed font for better legibility)  捕获.JPG  捕获.JPG |
| 7. Reverse Integer(easy)  Given a 32-bit signed integer, reverse digits of an integer.  捕获.JPG |
| 8. String to Integer (atoi)(medium)  Implement atoi to convert a string to an integer.  捕获.JPG |
| 9. Palindrome Number(easy)  Determine whether an integer is a palindrome. Do this without extra space.  捕获.JPG |
| 11. Container With Most Water(medium)  Given *n* non-negative integers *a1*, *a2*, ..., *an*, where each represents a point at coordinate (*i*, *ai*). *n* vertical lines are drawn such that the two endpoints of line *i* is at (*i*, *ai*) and (*i*, 0). Find two lines, which together with x-axis forms a container, such that the container contains the most water.  Note: You may not slant the container and *n* is at least 2.  捕获.JPG |
| 14. Longest Common Prefix(easy)  Write a function to find the longest common prefix string amongst an array of strings.  捕获.JPG |
| 15. 3Sum(medium)  Given an array *S* of *n* integers, are there elements *a*, *b*, *c* in *S* such that *a* + *b* + *c* = 0? Find all unique triplets in the array which gives the sum of zero.  **Note:** The solution set must not contain duplicate triplets.  三个数，两个从两头开始取值，第三个数在中间移动取值。这样时间复杂度就是O(n2)而不是O(n3)  捕获.JPG  捕获.JPG |
| 16. 3Sum Closest(medium)  Given an array *S* of *n* integers, find three integers in *S* such that the sum is closest to a given number, target. Return the sum of the three integers. You may assume that each input would have exactly one solution.  For example, given array S = {-1 2 1 -4}, and target = 1.  The sum that is closest to the target is 2. (-1 + 2 + 1 = 2).  思路同15题的3Sum  捕获.JPG |
| 17. Letter Combinations of a Phone Number(medium)  Given a digit string, return all possible letter combinations that the number could represent.  A mapping of digit to letters (just like on the telephone buttons) is given below.  捕获.JPG  **Input:**Digit string "23"  **Output:** ["ad", "ae", "af", "bd", "be", "bf", "cd", "ce", "cf"].  共有三个for循环，res中存储输入一个数字时的所有可能结果。  输入23，共循环digit.size()轮。第一轮i循环完存储a,b,c,  第二轮i循环完存储ad,bd,cd,ae,be,ce,af,bf,cf;  c代表每个数字键里包含的字母；  j代表上一轮循环后res的size,这是因为上一轮的要和这一轮的字母相加；  temp代表当前c中的一个字母与上一轮res中的string相加后的结果  res代表最终的循环结果，即每一个digit[i]的循环结果。  捕获.JPG |
| 18. 4Sum(medium)  Given an array *S* of *n* integers, are there elements *a*, *b*, *c*, and *d* in *S* such that *a* + *b* + *c* + *d* = target? Find all unique quadruplets in the array which gives the sum of target.  **Note:** The solution set must not contain duplicate quadruplets.  For example, given array S = [1, 0, -1, 0, -2, 2], and target = 0.  A solution set is:  [  [-1, 0, 0, 1],  [-2, -1, 1, 2],  [-2, 0, 0, 2]  ]  //固定前两个数，后两个数从左侧和右侧开始移动  捕获.JPG  捕获.JPG |
| 20. Valid Parentheses(easy)  Given a string containing just the characters '(', ')', '{', '}', '[' and ']', determine if the input string is valid.  The brackets must close in the correct order, "()" and "()[]{}" are all valid but "(]" and "([)]" are not.  //注意题目中给出的string只包含各种括号  //当string中的c没有循环完时，出现empty只能说明初始string就为空  捕获.JPG |
| 22. Generate Parentheses(medium)  Given *n* pairs of parentheses, write a function to generate all combinations of well-formed parentheses.  For example, given *n* = 3, a solution set is:  [  "((()))",  "(()())",  "(())()",  "()(())",  "()()()"  ]  捕获.JPG |
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