Thursday, May 21, 2015

FB

Subject

- Remove BST keys outside the given range
  - http://www.geeksforgeeks.org/remove-bst-keys-outside-the-given-range/
- Lowest common ancestor in a BST
  - http://www.geeksforgeeks.org/lowest-common-ancestor-in-a-binary-search-tree/
  - http://www.geeksforgeeks.org/lowest-common-ancestor-binary-tree-set-1/
  - http://coding-exercise.blogspot.com/2013/04/ctci-47-firstlowest-common-ancestor.html
  - use pre-order traversal find path from root to n1 and n2, compare two paths
- Jump River based on an array [1,1,0,1,0,0]
  - http://www.fgdsb.com/2015/01/19/jump-river/
- collision with colleagues
  - let the code speak
- why FB?
- suggestions to products
- roman num to integer
  - https://leetcode.com/problems/roman-to-integer/
- integer to roman
  - https://leetcode.com/problems/integer-to-roman/
- kmp
  - https://leetcode.com/problems/implement-strstr/
- print all path from root to leaf

  - Similar to post-order traversal
- given a list of words, find palindrome pairs
  - separate each word into two parts: palindrome + left, if reverse left exists, bingo
- find k largest elements
  - https://leetcode.com/problems/kth-largest-element-in-an-array/
- add binary
  - https://leetcode.com/problems/add-binary/
- remove elements
  - https://leetcode.com/problems/remove-element/
- level order traversal bt
  - https://leetcode.com/problems/binary-tree-level-order-traversal/
- reverse linked list
  - https://leetcode.com/problems/reverse-linked-list/
- find k-closest elements to a given value in a sorted array
  - find target position, expands from both left and right side
- minimum window of substring
  - https://leetcode.com/problems/minimum-window-substring/
- num of palindrome substring
  - http://stackoverflow.com/questions/20915141/finding-number-of-palindromic-substrings-in-on-or-on-log-n
- length of longest palindrome substrings
  - http://www.felix021.com/blog/read.php?2040
- intersection of two linked lists
  - https://leetcode.com/submissions/detail/17661797/

- rotated list find pivot
- is BST?
  - http://www.geeksforgeeks.org/a-program-to-check-if-a-binary-tree-is-bst-or-not/
  - pre-order traversal or min, max range
- sqrt
  - https://leetcode.com/submissions/detail/22025503/
  - http://www.fgdsb.com/2015/01/10/sqrtx/
- pow
  - https://leetcode.com/submissions/detail/28724859/
- difference = k pairs in an array
  - sort first and the same thing with two sum
- 输入一字符串，输出一最长重复串 (比如AxyxyxA中xyx就是), 分析一般复杂度及最坏情况下复杂度
- decode ways
  - https://leetcode.com/submissions/detail/28594439/
- regular expression matching
  - https://leetcode.com/submissions/detail/21875747/
- merge two sorted singly linked lists
  - https://leetcode.com/discuss/18986/14-line-clean-c-solution
- is Palindrome
  - isdigit, isalpha, isalnum, tolower for cpp
  - https://leetcode.com/submissions/detail/28718018/
- print a binary tree by vertical level order
  - http://www.geeksforgeeks.org/print-binary-tree-vertical-order/

- merge intervals
  - https://leetcode.com/submissions/detail/28276059/
- **insert interval**
  - https://leetcode.com/submissions/detail/21754015/
- meeting schedule
  - http://www.fgdsb.com/2015/01/30/meeting-rooms/
- is one edit distance
  - http://www.danielbit.com/blog/puzzle/leetcode/leetcode-one-edit-distance
- read 4 k
  - http://www.fgdsb.com/2015/01/04/implement-readn-with-read4/
  - //might have some different requirements
- clone a linked list with next and random pointer
  - http://www.geeksforgeeks.org/a-linked-list-with-next-and-arbit-pointer/
- k largest/smallest elements in an array
  - http://www.geeksforgeeks.org/k-largestor-smallest-elements-in-an-array/
  - use min heap
- k smallest element in a row-wise and column-wise sorted 2D array
  - http://www.geeksforgeeks.org/kth-smallest-element-in-a-row-wise-and-column-wise-sorted-2d-array-set-1/
- coin change (DP)
  - http://www.geeksforgeeks.org/dynamic-programming-set-7-coin-change/
- longest consecutive number
  - https://leetcode.com/submissions/detail/23217856/
- fib dp

  - http://www.geeksforgeeks.org/program-for-nth-fibonacci-number/

- divide two integers
  - https://leetcode.com/submissions/detail/21205222/
- merge two array
  - https://leetcode.com/problems/merge-sorted-array/
  - complexity???
  - what if the size of one array is very large (B) while the other one(A) is small? use binary search to find the position of the element of A in B.
- sparse vector product
  - use hash table to store the vector.
- bst iterator
  - https://leetcode.com/submissions/detail/28648363/
- maximum size square sub-matrix with all 1s
  - http://www.geeksforgeeks.org/maximum-size-sub-matrix-with-all-1s-in-a-binary-matrix/
- Intersection of two sorted arrays
  - http://www.geeksforgeeks.org/union-and-intersection-of-two-sorted-arrays-2/
- K Closest points
  - http://www.fgdsb.com/2015/01/03/k-closest-points/
  - usage of make heap, heap push, pop heap
- 一个字符串,一个字符数组,求所有的子字符串,子字符串不能包括字符数组里面的所有元素. abbc, [a,b,c] -> a, b, c, ab, abb, bbc, bb, bc
- 后缀词排序
- Given set of points in 2d grid space. Find a grid point such that sum of distance from all the points to this common point is minimum.

- area of islands
- valid palindrome
  - https://leetcode.com/submissions/detail/28718018/
- morris in-order traversal
  - http://www.cnblogs.com/AnnieKim/archive/2013/06/15/morristraversal.html
- suffix array
  - http://www.geeksforgeeks.org/suffix-array-set-1-introduction/
- trie
- sort k linked list
- 类似combination sum， 给一个 unsorted array， 但输出结果需要连续的
- insert sorted cycle linkedlist，分析 edge case.
- stock max profit (一天只买或卖)
- stock max profit II (一天可卖可买)
- stock max profit III (2的基础上卖有commision fee)
- number of islands (return islands size in a linked list)
- regular expression matching
- Design：fb主页上的search bar，用户输入关键字w1，w2...这些关键字可以是AND的关系，也可以是OR的关系。应用就返回带有关键字AND或者OR的post给用户看。问了数据怎么在数据库里存。数据库怎么shard。关键字和post怎么对应着存储。load增加时如何改进关键字和post的存储方式。他有谈到index shard和documentshard，大概叫这名字，我设计是一窍不通的，准备几个高频题没有碰上，就跟他瞎扯。
- Longest Valid Parentheses
- reverse print linked list by using recursion
- word search
- 检测一个图是否是二分图, 就是BFS, 然后给每个节点上色.

- 给你棵二叉树，节点上有权值，问从一个叶子走到另外一个叶子的路里面权值最大的那条是什么
- 给你数组a1,a2,...,an。输出数组a2*a3*...*an, a1*a3*a4*...*an, ..., a1*a2*…*an-1.
- moving fast and break things
- focus on impact
- be bold and open