closet number in the binary tree
course schudule 2
find peak number
Return the first unique character in a string.
211. Add and Search Word
meeting room2
second biggest element in BST (iterative, or DFS)
https://leetcode.com/problems/merge-sorted-array/
2sum
merge two sorted array, follow-up merge k sorted array.
問給一個字串 檢查左右括號是否平衡 像是{[]()}就是平衡的 {{})就是不平衡f
https://leetcode.com/problems/diameter-of-binary-tree/

Given k sorted lists of O(n) integers each, implement an iterator that
will yield all elements in sorted order。
https://leetcode.com/problems/subarray-sum-equals-k/   (注意先放一个01在map
里面 注意先查是否存在 再放进去)
https://leetcode.com/problems/trapping-rain-water/
https://leetcode.com/problems/insert-delete-getrandom-o1/
https://leetcode.com/problems/validate-binary-search-tree/
Find all palindromic substrings of a given string. String can be very
long.
lowest common parent node
第一题： 是一道easy。把分数转化成小数： '1 1/2' -> '1.5'   '11 1/3' ->
'11.333'
第二题：clone graph
第三题：在数组中找第k大的数字，用quick select做
https://leetcode.com/problems/lo ... g-path-in-a-matrix/   (因为有memo了 所以
不用isvisited表了)
https://leetcode.com/problems/valid-palindrome/
指数函数 最后要常数空间和对数时间 pow(x,y)   (注意 y可能是负数 x可能是double)
https://leetcode.com/problems/continuous-subarray-sum/
求一個schedule list是否有overlap的時段 ,類似leetcode 435
https://leetcode.com/problems/regular-expression-matching/
word break
415. Add Strings
https://leetcode.com/problems/palindromic-substrings/
https://leetcode.com/problems/total-hamming-distance/
2. Permutation (lc 46)
https://leetcode.com/problems/first-bad-version/
408. Valid Word Abbreviation
67. Add Binary
https://leetcode.com/problems/remove-invalid-parentheses/

tic tac toe

Valid Number

Binary Tree Vertical Order Traversal 。

find celebrity

https://leetcode.com/problems/k-closest-points-to-origin/

merge intervals

给你两个字符串，要求写一个方程去比较他们。要按照数字大小比较。例如给'12'和 '2'， 要
return '2'是小的那个。

https://www.geeksforgeeks.org/un ... wo-sorted-arrays-2/

https://leetcode.com/articles/verifying-an-alien-dictionary/

给一组数字和一个target值，问是否能在数组中找到连续数字之和等于target。

https://leetcode.com/problems/rotate-array/

https://leetcode.com/problems/kt ... in-a-sorted-matrix/

https://leetcode.com/problems/lo ... peating-characters/

340. Longest Substring with At Most K Distinct Characters

https://leetcode.com/problems/random-pick-with-weight/

https://leetcode.com/problems/product-of-array-except-self/

https://leetcode.com/problems/range-sum-query-2d-immutable/

https://yeqiuquan.blogspot.com/2 ... us-permutation.html

二叉树遍历的迭代器 pre-order

https://www.cnblogs.com/lightwindy/p/8491309.html

https://leetcode.com/problems/flatten-nested-list-iterator/

https://leetcode.com/problems/re ... -from-sorted-array/

两数相除，不考虑负数情况，求最终的除数和余数，利口二舅 follow up : 如何再快一点 不要
每次从最小的divisor开始。recurssiv call的时候传（current divisor）/4，返回的结果
* （current factor）/4。

https://leetcode.com/problems/valid-anagram/

https://leetcode.com/problems/integer-to-english-words/

https://www.programcreek.com/201 ... ultiplication-java/

https://leetcode.com/problems/unique-paths/

https://leetcode.com/problems/binary-tree-paths/

给两个List，一个表示去程的票价，一个表示回程的票价，index是对应日期，求最小的往返程的票
价总和。注意，回程时间不能早于去程时间。

一个tree，其中的node类有两个参数，它的value和parent。（一般tree都是left和right,此
处是只有一个parent，它的父节点），给定两个节点，求它们的最低的共同父节点。

第二轮，一个印度小哥面试官，只有一个题，reverse double linked list,

第一题是地里最近另一篇面经说过的根据人口比例返回city name，一开始写的O(n)解法，问有没
有更快的办法，描述了一下用binary search的办法，没让改code。感谢面经~

战列舰，不顺在后面的followup，要优化，优化也不难，因为size=3，所以每3步炸一下，最后找
一个(x,y)，就是bfs，找到全部三个坐标

一个grid，全是0，1，每一行遇到1以后就全是1了，然后叫返回矩阵里面有1的最小的那个列的
index

LC 157 Read N Characters Given Read4K

giving a str with alpha-numeric and parenthenes, output alpha-numeric and
valid pair of parenthenes, e.g. ((((a)b)(=>((a)b)

dictionary里面的每一个word有一个score，每一个break的score就是break出来的那些word
的score的和，叫返回所有最大score的break方式

两个向量的积，vector表示，从m+n （m，n 分别为两向量的长度）到 m*log*n

https://leetcode.com/problems/word-ladder/

https://leetcode.com/problems/se ... ialize-binary-tree/

Binary Tree，求 sum 最大的subtree，只返回最大的sum即可。

https://leetcode.com/problems/binary-tree-maximum-path-sum/

https://leetcode.com/problems/sort-colors/

https://leetcode.com/problems/lo ... easing-subsequence/

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

http://jianlu.github.io/2016/11/09/leetcode161-One-Eidt-Distance/

给一个dictionary of words，和一个pattern，问这个pattern是不是在dictionary里面。
要implement两个function，setup和search

题目是在一个无限大的棋盘上，给一个起始点和终止点，按照knight（马）的移动规则，最少需要
多少jumps能从起始点到终点。这题还是比较简单的，用BFS就好。

加面，印度小哥，题目是给N个平行线段，有些会overlap，找出unique线段数目。这道题在地里面
经貌似见过，但是没有好好去准备这道题。

写一个findShip(gridSize)，input是gridSize，在一个gridsize x gridsize的矩阵里面
找到一个size=3 battleship，output是这个ship的三个坐

Leetcode # 622
LC 378 (Find kth smallest element in M sorted arra)

Coding Interview II: > Longest Consecutive Sequence in 2D Matrix
issomewhat similar [LC329] Follow-up: Achieve O(1) extra space, and O(N^2)
time, N is the number of row /column.

1. Determine whether string is a palindrome, write the code, run an
example, (communication is very important) 2. Give two binary strings,
(0,1), sum, Example: "101", "1000", => "1101" Ansai: 1. Algorithm, give a
bunch of points, find (four points) can form the minimum facet rectangle.
2. behavior + algorithm, b

merge K sorted arrays

After 45 minutes, three algorithm questions, and finally asked a
five-minute question. It is a friendly Chinese brother, thank you! ! !
First question: It is an easy. Convert the score to a decimal: '1 1/2' ->
'1.5' '11 1/3' -> '11.333'
Second question: clone graph
The third question: find the kth largest number in the array, do it with
binary search
The third question was not finished at the end. When the time was too
late, I dictated my thoughts and proved the time complexity.

May I ask the landlord, the first question is to return to the float form,
that is, can be used directly / is it? Not the LC166 topic?

There Fielding with time intervals [start, end], find a time point with
the most meeting

An array requires split into two st
    One pass

2. number of Friend Request
An array is all human's age, asking for the number of all possible friend
requests.
There are 3-4 conditions that are not clear.

Design

2 Design a real-time type-ahead search-phrase predictor which presents the top-10 ranked search strings that begin with a given prefix.
3 Design timeline group permissions, for example, user can send a status to choose a group
Friends can be seen. The topic is very simple, but it will discuss the estimation of Facebook user size, server estimation, and storage of social graph. Feel the system design as long as you can talk about the idea, the interviewer will not tangled with too much detail.
4 design biased design storage structure
5 system design: design key-value store, directly listed a lot of requirements from client to server, basic everywhere trap, experience is more important here, light according to interview preparation
Basically no effect.
6 Auto-complete function of the search bar
7 That gives you a point, then there are a few million POIs, find the nearest 20. . . I said that Z distance. . The two dimension becomes a dimension, the interviewer said, I have never heard of Zdistance, no. . .
8 find close coordinates
9 I came up with a 20-minute discussion on how to design a data structure to represent the relationship between fb's friend and follower.
, tradeoff of various structures. When I discussed it, I guessed if I wanted to clone the graph, and then I still didn't let it go.
I am writing code. Sure enough, deep copy. However, the data structure discussed last is a bit different from lc, dfs
The idea is the same. The whole process is very pleasant, abc male is also a lot of positive feedback. At the end of the interview,
I was excited to say about the benefits of fb for a long time (salary, vacation, etc.)
10 deadlock design
11 Ask why Facebook, which feature of Facebook is the most favorite, why do you like it, and then there are still some shortcomings in this feature.
12 Then let him give him a very specific example. When you have a technical conflict with your colleague, what should be done, and the question is very detailed.
Especially deep.
13 From the beginning to the end, there is no expression, and the accent is difficult to understand. I didn't feel good at the time.
It really is in this round. design news feed API, which questions I had prepared, but according to pull / push model quasi-

prepared, also prepared a pub / sub model, is to give every friend have built a queue, pushing a news,
Calculated questions that have been prepared. But he doesn't test these, I don't want to say about aggregator tier or database tier.
Something, how to write the main focus API, input/output, how to save the image in the feed, want to explain
How do friends save, how to do multi device sync. I think his test site seems to be in data.
Serialization/deserialization here? Feeling to communicate with him is to say through the window, always guessing,
It is also inevitable to have a bad review. . .

14 design questions, transfer 10G data to 5 data centers, each data center has 1000
node. The third brother started to look for the background from the background, and asked for the differential equation of the gossip protocol during the interview.
black.
15 Design the back end of iPhone Find Friends. Geohashing + DHT solution
16 design questions are very detailed, such as how to implement DHT, how to achieve a single Hash table can save memory, how to do
Concurrency control, how to implement mutex and the like.
17 system design: Each record has a large field, such as age, gender, hobbies, etc. Give a combination of fields, such as less than 25 years old, love sports, query the number of users who meet these combined conditions
18 Design a Facebook search engine that can search for facebook updates containing keywords. Not asking
On too many front ends, mainly discussing architecture and storage.
Gives an inverted index to store the index, and discusses how to store facebook's dynamics (key-value storage)
How to handle hot keyword. The interviewer is very good and guides me.
19 system design white uncle, there is a function is List<id> getNearest(int x, int y
){}, assuming that you click on the map from the mobile, and then return to all the building locations near the change point. how
Design data structure and data scheme
20 System design designed an app for reading photo feeds on your phone.
    Function: Read the friend's recent picture
              Read a friend's album
    Requirements: Meet the function while reducing the energy consumption of the phone.
21 design:tiny url.
22 System design: instgram

23 Culture fit: There are 200M users, now let you group them and divide them into about 20 groups, each

There are about 10M users in the group, try to let the user interact more together

24 design read the next few articles, know the general idea, google mapreduce, file system, big table,

Fb memcache, unicorn. Other design materials I have seen that are not bad, the last common topic

Summary can be seen, very helpful:

Http://blog.csdn.net/v_july_v/article/details/7382693

https://www.youtube.com/watch?v=-W9F__D3oY4

http://www.mitbbs.com/article_t/JobHunting/32741713.html

It is also recommended to prepare a few common data classes (including generic programming), but I have not encountered it.

He has some topics like concurrency, database, NP-hard.

25 Design a facebook function: Under a post, if there is a new comment, it can be displayed automatically.

It does not need to be refreshed before displaying.

26 design facebook chat

27 design facebook chat

28 Write a sequential multithreaded pool. Implementing f(Runable r) requires that the caller not block, but

in the pool there is a run with this one.

29 Designed like the gogle map system, the algorithm from point A to point B already exists. The entire map about hundreds of millions of line segments, the market for this system occupies about 30%. It is required to calculate the result in less than 1 time. Estimate more

Less machine? How to save the map, how to cache?