An Array arr={7, 7, 8, 8, 9, 1, 1, 4, 2, 2} has numbers appearing twice or once. Duplicates appear side by side everytime. Might be few numbers can be occur one time and just assume this is a right rotating array (just say an array can rotate k times towards right). Aim is to identify numbers that occured once in array.

Sum of key elements in individual path of BST (just say this sum as path\_ weight) and threshold path weight is given as input. If any of the pathweight is less than oversold path weight then that should be deleted from the tree.

1. <https://www.geeksforgeeks.org/largest-sum-contiguous-subarray/>
2. Given a list of transaction between friends who have to give or take some amount of money from one another. Now, they have to settle up with minimum number of transactions. Also, you have return a list of all the transactions.                                                                                                                                            For example – If B owes A Rs. 200 : B->A = 200.                                                                                                        Similarly, if C owes B Rs. 200 : C->B= 200.                                                                                                        So the minimum number of transactions is 1 and that should be : C->A = Rs. 200

[First non-repeating character using one traversal of string](https://www.geeksforgeeks.org/first-non-repeating-character-using-one-traversal-of-string-set-2/)

Given a binary tree, print all the boundary nodes in an anti-clockwise direction starting from the root.

Deletion Operation on Doubly Linklist, Cover all the test Case.

1. [Stock buy and sell problem to maximize profit](https://www.geeksforgeeks.org/stock-buy-sell/).
2. <https://www.geeksforgeeks.org/-boolean-matrix-question/>
3. Merge Overlapping Intervals – Solved using a stack.

          Problem Link:<https://www.geeksforgeeks.org/merging-intervals/>

1. Minimum iteration required to root all oranges. Problem link:

           Problem Link: <https://www.geeksforgeeks.org/minimum-time-required-so-that-all-oranges-become-rotten/>

       2.[Count distinct elements in every window of size k, expected time complexity O(n)](https://www.geeksforgeeks.org/count-distinct-elements-in-every-window-of-size-k/).

## [Lexicographically smallest string formed by appending a character from the first K characters of a given string](https://www.geeksforgeeks.org/lexicographically-smallest-string-formed-by-appending-a-character-from-the-first-k-characters-of-a-given-string/)

[Find i’th index character in a binary string obtained after n iterations](https://www.geeksforgeeks.org/find-ith-index-character-in-a-binary-string-obtained-after-n-iterations-set-2/)

Search an element in a sorted rotated array in a single pass

Extension of rat in a maze problem. Maximum cheese the rat can eat in a maze.

## [Check if X can give change to every person in the Queue](https://www.geeksforgeeks.org/check-if-x-can-give-change-to-every-person-in-the-queue/)

Given a matrix of ‘0’ and ‘1’, find the largest Iceland (i.e area of  ‘1’s)

<https://www.geeksforgeeks.org/design-a-data-structure-that-supports-insert-delete-search-and-getrandom-in-constant-time/>

Given an array of integers  and a window size ‘k’, find first negative number for each possible window in the array.

<https://www.geeksforgeeks.org/first-negative-integer-every-window-size-k/>

* Write a program to check parenthesis are matching.
* Write a program to search a number in a sorted array having 1 maxima.
* Write a program for finding K largest elements in an array.
* In a linked list find Kth elements from end in a single traversal.
* Given a 2-D matrix of 0s and 1s, find the number of groups of adjacent 1s given that diagonal 1s are not included.
* <https://www.geeksforgeeks.org/trapping-rain-water/>
* <https://www.geeksforgeeks.org/longest-possible-chunked-palindrome/>
* Given an array and an operation -> foo(index, value), the value can be either 1 or -1, if foo(index, value) is called, it will add ‘value’ to all elements from index till end of the array, find minimum number of operation to make all array elements 0.
* Don’t remember completely, but it was something like finding a deadlock in a BST.
* <https://www.geeksforgeeks.org/topological-sorting/>
* Convert a roman number into an integer number. He provided me with a set of rules.
* A running stream of numbers is coming you need to keep track of top K elements
* [Clone a Binary Tree with Random Pointers](https://www.geeksforgeeks.org/clone-binary-tree-random-pointers/)
* [Write a program to calculate pow(x, n)](https://www.geeksforgeeks.org/write-a-c-program-to-calculate-powxn/)
* Variation of [Topological Sorting](https://www.geeksforgeeks.org/topological-sorting/) : You have been given a set of inter-dependent tasks along with the time taken to execute them. We have more number of parallel processors available than the number of tasks given. There could be multiple starting tasks. There could also be cyclic dependencies. Calculate the minimum time required to complete all the task. Complete end to end production ready code was expected.
* [Arrange given numbers to form the biggest number](https://www.geeksforgeeks.org/given-an-array-of-numbers-arrange-the-numbers-to-form-the-biggest-number/)
* [Postfix expression evaluation](https://www.geeksforgeeks.org/stack-set-4-evaluation-postfix-expression/)
* [Sort an array of 0s. 1s & 2s](https://www.geeksforgeeks.org/sort-an-array-of-0s-1s-and-2s/)
* [Convert Postfix expression to Infix](https://www.geeksforgeeks.org/postfix-to-infix/)
* [All anagrams of a given string](https://www.geeksforgeeks.org/write-a-c-program-to-print-all-permutations-of-a-given-string/)
* [Print right view of binary tree](https://www.geeksforgeeks.org/print-right-view-binary-tree-2/)
* [Clone a linked list with Next and Random pointer](https://www.geeksforgeeks.org/a-linked-list-with-next-and-arbit-pointer/)
* Given a result of a competition among all the students of a class, write a program to make students stand in a order such that every student must have lost to the student in his/her *immediate*left and won against the student to his/her *immediate* right.
* Find pair with given sum in bst
* Transpose of the matrix
* Sum of two linked lists <https://www.geeksforgeeks.org/sum-of-two-linked-lists/>
* Find top view of binary tree (Iterative approach)
* There is a room with guard sitting there, he is noting the booking time. For eg:-  
  a) 0200 hrs to 0430 hrs  
  b)0315 hrs to 0545 hrs  
  c)0600 hrs to 0800 hrs

You have to check how many are valid bookings with no conflict.

(Invalid booking are those which are having conflict with any booking)

In above example a) & b) are having conflicts so no valid booking. c) is valid booking.

* Write a program to find the range of majority elements in array(non-descending)?
* Write program to print all the permutation of String? Example Input : AB, Output : {$, “A”, “B”, “AB”};
* Write program to transform a tree from give tree, such that each node will have the sum of child nodes plus itself.(Write recursive funciton)
* Run length encoding  
  aaaaaabb -> a5b2  
  aaaaabccc -> a5bc3
* Linked List pair sum count  
  0 -> 2 -> 5 -> 7 -> 4 -> 6 -> 10 -> 20 -> -10 -> Null  
  Given Sum: 10  
  Output : 3  
  Explanation: (4, 6) (0, 10) (20, -10)
* Rotate Doubly Linked List by N time

NULL <= a =><= b =><= c =><= d =><= e =><= f =><= g =><= h => NULL  
Given Num: 4  
O/P:

NULL <= e =><= f =><= g =><= h =><= a =><= b =><= c =><= d => NULL

* Given Binary Tree, find level of x node if x is present otherwise return 0.
* Given array -> {5, 1, 3, 2, 8}  
  and a Linked List where elements will be from the array but can also be duplicated.  
  3 -> 2 -> 5 -> 8 -> 5 -> 2 -> 1 -> X

Sort the linked list in the order, elements are appearing in the array. O(n) complexity was expected. Complete running code on paper was expected. All boundary condition checks were expected.

* Given a n-ary tree, basically a graph but connected and doesn’t contain cycle.  
  every edge is given a weight, identify all paths from all vertex to all vertex & then sum of all paths.  
  Give final result as sum of all paths.
* Find max 1 in a row of a 2D array.https://www.geeksforgeeks.org/find-the-row-with-maximum-number-1s/
* Find the biggest square in a 2D array.https://www.geeksforgeeks.org/maximum-size-sub-matrix-with-all-1s-in-a-binary-matrix/
* Zig Zag traveral in a binary tree. (<https://www.geeksforgeeks.org/zigzag-tree-traversal/>)
* Finding the next higher palindromic number using the same set of digits. (<https://www.geeksforgeeks.org/next-higher-palindromic-number-using-set-digits/>)
* Finding compliment and 2s compliment of a binary number (Didnt have to code it just find it for say 100011)
* A variant of Binary tree traversal. I was given a tree and the output was given had to identify the type of traversal and then code it out.

It was right\_subtree->left\_subtree->root

* Stock buy sell to maximize profit problem (<https://www.geeksforgeeks.org/stock-buy-sell/>)
* How to find all boundary node of a tree.
* How to reverse a string using without any other variable.
* From an array, Need to find an index in which sum of left elements & sum of right elements are same.
* Sort an array arr = {1, 0, 0, 0, 1, 0, 1, 1, 1, 1} with o(n) complexity. It is also called segregation of an array.
* Topological sort (there are lots of modules are given which are dependent on other modules, find the build sequence).
* Median in running stream of integers. (solved using min and max heap)
* LCA of two nodes
* Stock buy and sell problem
* Finding if there exist a sum X of two elements from and array having positive and negative numbers
* Maximum sum subarray from array having positive and negative numbers both.
* Finding missing number in array, i gave XOR approach then he deep dived into how XOR work  
  given a tree having unique nodes and given n and k value, find n node and then print all nodes having distance of k from nth node in both the direction
* [Rotate Doubly linked list by N nodes](https://www.geeksforgeeks.org/rotate-doubly-linked-list-n-nodes/)
* [Sort the linked list in the order of elements appearing in the array](https://www.geeksforgeeks.org/sort-linked-list-order-elements-appearing-array/)
* [Find i’th Index character in a binary string obtained after n iterations](https://www.geeksforgeeks.org/find-ith-index-character-in-a-binary-string-obtained-after-n-iterations/)
* [Closest numbers from a list of unsorted integers](https://www.geeksforgeeks.org/closest-numbers-list-unsorted-integers/)
* [Reverse individual words](https://www.geeksforgeeks.org/reverse-individual-words/)

## [Check if array contains contiguous integers with duplicates allowed](https://www.geeksforgeeks.org/check-array-contains-contiguous-integers-duplicates-allowed/)

## [Maximum number of chocolates to be distributed equally among k students](https://www.geeksforgeeks.org/maximum-number-chocolates-distributed-equally-among-k-students/)

1. Distance between two given nodes in a binary tree. I was asked to write the optimal approach for the this.  
   <https://www.geeksforgeeks.org/find-distance-between-two-nodes-of-a-binary-tree>

* A group of people are seated in a circular table. After a while , each members takes a chit and writes his name along with the next person name (anticlock wise.)   . If such chits are given , re draw the the table. A optimal approach was expected. eg. A – B – C- D – E – A  
  chits will be written as A-B  
  B-C  
  C-D etc
* Given a Binary tree with  root(R) , a node(N) and distance (k). find all the nodes at k distance from N. Optimal solution was expected.  
  https://www.geeksforgeeks.org/print-nodes-distance-k-given-node-binary-tree/
* Given a linked with next pointer and random pointer. Clone the linked List
* Given a string of arrays “cat,dog,god,act”. Print all the anagrams which comes first in list.  
  eg.  output is cat ,act,dog and god. Means all the similar anagrams should be printed together and the next print should be the one which comes earlier in the list.  
  <https://www.geeksforgeeks.org/given-a-sequence-of-words-print-all-anagrams-together/>  
  hint : Trie approach was expected here.
* Given a stream of input Integers, at any time get the median of those numbers.
* Given a input String and a patterns string. return all the start index of the input string whenever the anagrams of the pattern match with input string. eg.  
  in : abcbaabba  
  pat : ab  
  output : index 0  
  index 3  
  index 5  
  index 7
* Reverse a stack using recursion.
* Next Greater element.
* <https://www.geeksforgeeks.org/given-a-string-print-all-possible-palindromic-partition/> Given a string, find all possible palindromic partitions of given string.
* You are given with a large paragraph and N words.You have to find a min length subparagraph of the paragraph which contain all those N words in any order.(Case Insensitive)
* Given a sorted array of integers(might contain duplicates), you should write a function which returns the first index of an element.  
  E.g.  arr = [1,2,2,2,3,3,3,4] val=3 ; ans = 4
* Given a binary tree check if its a binary search tree or not?<https://www.geeksforgeeks.org/a-program-to-check-if-a-binary-tree-is-bst-or-not/>  
  It is very important to write neat code on paper.
* Given an array of integers with the property that arr[j] – arr[j-1] is either 1,0,-1 and a search value, provide an efficient search mechanism.
* Given an array of integers(duplicates allowed) return if it is a set of contiguous integers or not?  
  Input: 5,2,3,6,4,4,6,6 Output: Yes (as it is from set of [2,3,4,5,6])
* Given a string and pattern with (\*, ?) Check if it can match the string.
* Find an element in first increasing and decreasing array.
* Given an array of strings. Find all pairs which form palindrome. O(N)
* Celebrity problem.
* Given a set of dependent tasks, find order for dependent tasks. Variation of topological sort.
* Count of paths from top left to right bottom in an array containing 0/1. Here 1 means blocked shell. You are allowed to move right or down.
* find maxsum in a binary tree. (
* Given three linked list, add them.

Input will be of this format

1->0->1

8->9->9

5

Output: 1->0->0->5

* Given an array of size n consisting of positive integers, choose three integers(not necessarily contiguous) such that they are in ascending order and their product is maximum. Input was given in this format.

array = {5, 3, 6, 8, 9, 10}

Output: array = {8, 9, 10}

* [https://www.geeksforgeeks.org/validity-of-a-given-tic-tac-toe-board-configuration/’](https://www.geeksforgeeks.org/validity-of-a-given-tic-tac-toe-board-configuration/')
* <https://www.geeksforgeeks.org/level-order-tree-traversal/>
* <https://www.geeksforgeeks.org/find-next-greater-number-set-digits/>
* <https://www.geeksforgeeks.org/sliding-window-maximum-maximum-of-all-subarrays-of-size-k/>
* Given a 1D Array. Return True if there exists an element where a[i]+a[j] = 0 && i!=j. Reference : <https://www.geeksforgeeks.org/find-a-pair-with-the-given-difference/>
* Find a [longest palindrome String](https://www.geeksforgeeks.org/longest-palindrome-substring-set-1/)
* Given a Binary Tree, Replace every node with its larger Same as sum tree
* Print min & max (both) of all sub array of size k  
  Reference : <https://www.geeksforgeeks.org/sliding-window-maximum-maximum-of-all-subarrays-of-size-k/>
* Given an integer array and find first k largest elements. Focus was on complexity of the code
* Given an integer array and an integer value X, return three elements in that array such that sum of them equals to X.
* Given a tree asked to print the path of the tree which has the highest number of bends. Then he modified the question and asked me to code for both.
* Given a tree with each node having numbers. Path from root to a leaf node forms a number like (root(1)->left(2)->leftLeaf(3) = 123). He asked me to code to add all the number for root to leaf.

This round went pretty well.

* Given 2D array for characters and a string, asked to find whether the string follows the pattern of the dictionary. I will explain the pattern below.

2D array

|a|b|c|

|b|c|a|

|b|b|a|

String: bababbcac

The pattern is, the words in the dictionary should be present in the string in same order and the letter taken by one word should not be the part of other dictionary word. We should find whether all the dictionary words can be formed or not in the given string.

* Given a string. Find all the palindromic partitions of the string. (Number of way the string can be partitioned so that all the partitions are palindrome) ( Case–Insensitive )  
  Examples:
* You are given with a large paragraph and N words.You have to find a min length subparagraph of the paragraph which contain all those N words in any order.(Case Insensitive)
* Given a n-ary tree print all the possible paths of the tree.
* Given the no. of stairs as the input and a person can step forward either 1 or 2 or 3 steps at a time. Find the total no of possible ways person can climb the stairs.  
  Input : 3  
  Output: 4
* Given a 1-D array having equal no even and odd numbers. Arrange the numbers in such a way that all the even no get the even index and odd no get the odd index. Required space complexity and time complexity was O(1).
* Print all the continuous sub-arrays where the sum of the sub-array becomes zero. Required space complexity was O(n).
* Given a string containing parenthesis. Find the total no of reversal of parenthesis to make the given output as balanced one. This question followed a detailed discussion and interviewer gave me different no of inputs to test the code.
* You have two lane road and there are two sensors,

1. Sensor A only covers Right lane.
2. Sensor B covers both Left and Right lane.

Input of the function is two arrays filled with 24 hours of data and value/item of array is tuple having direction and time. find following things,

1. Total no of cars on Right and Left lane.
2. Min and Max speed at sensor A.
3. Min and Max speed at sensor B.

Finding no 1 is easy.

Only issue is with 2,3 as we don’t have any unit of distance given anywhere. I asked him he told that’s a problem ?

This what we can do without distance we can at-least find the minimum and maximum time for sensor A and B just traversing an array but after that finding a distance that’s still a mystery to me ? in last few minutes he told me take a guess and do it but no enough time.

* <https://www.geeksforgeeks.org/find-duplicates-in-on-time-and-constant-extra-space/>
* given a point  (x,y) which is position of a friends house on a coordinate plane. and  a person starts from(0,0),and can move only on x-axis. each time he moves double the steps from previous step and in opposite direction.he starts by taking 1 step in positive x axis.  each step he takes 1 second. given a time n. we have to find the distance between his friends house and his position after n seconds.
* given a string and an integer m that denotes number of changes that can be made on the given string.we have to find maximum length of a sub string that can be formed by doing m number of changes such that all alphabets in the substring are same.
* <https://www.geeksforgeeks.org/write-an-efficient-c-function-to-convert-a-tree-into-its-mirror-tree/>
* https://www.geeksforgeeks.org/print-binary-tree-vertical-order
* given an array we have to find the median of the array when it is sorted but we should not sort it.
* .<https://www.geeksforgeeks.org/find-maximum-possible-stolen-value-houses/>
* Rearrange nodes in the given linked list as follows
* input : a -> b -> c -> d -> e
* output: a -> e -> b -> d -> c
* <https://www.geeksforgeeks.org/rearrange-a-given-linked-list-in-place/>
* Given an array of integers, print pairs(positive value and negative value of the number)  that exists in the array
* input : [1, -3, 2, 3, 6, -1]
* output : [-1,1]
* [-3,3]
* given row wise and column wise 2d matrix, find k minimum elements

<https://www.geeksforgeeks.org/kth-smallest-element-in-a-row-wise-and-column-wise-sorted-2d-array-set-1/>

* given an array and a window size and window moves from left to right till the rightmost side of window  hits                the other side of array, print max element in the window for each step in the process

<https://www.geeksforgeeks.org/sliding-window-maximum-maximum-of-all-subarrays-of-size-k/>

* [Given a matrix of n\*n size, the task is to print its elements in diagonally pattern.](https://www.geeksforgeeks.org/print-matrix-diagonal-pattern/)
* Lazy Bartender  
  There are N number of possible drinks.(n1,n2..)  
  Has C number of fixed customers.  
  Every customer has fixed favorite set of drinks.  
  Bartender has to create least possible number of drinks to suffice need of all the customers  
  Example:  
  Cust1: n3,n7,n5,n2,n9  
  Cust2: n5  
  Cust3: n2,n3  
  Cust4: n4  
  Cust5: n3,n4,n3,n5,n7,n4

Output: 3(n3,n4,n5)

* [Largest Sum Contiguous Subarray](https://www.geeksforgeeks.org/largest-sum-contiguous-subarray/)
* Given a string. Find all the palindromic partitions of the string. (Number of way the string can be partitioned so that all the partitions are palindrome)( Case – Insensitive )  
  Examples:
* Input : NITIN
* Output : 3
* Input : AAa
* Output : 4
* [Link for the following question](https://www.geeksforgeeks.org/given-a-string-print-all-possible-palindromic-partition/)

You are given with a large paragraph and N words.You have to find a min length subparagraph of the paragraph which contain all those N words in any order.(Case Insensitive)

<https://www.hackerrank.com/contests/dakshonline/challenges/yule-ball>

* <https://www.hackerearth.com/practice/data-structures/arrays/1-d/practice-problems/algorithm/i-demand-trial-by-combat-13/>
* Given a binary string (e.g. 01, 101, 011), in each iteration 0 becomes 01 and 1 becomes 10, find kth character in the string after nth iteration  
    simple approach, time complexity, express time complexity in terms of n only  
    efficient approach, explanation, time complexity
* Given n ropes of different lengths, connect them into one rope. cost to connect two ropes is equal to sum of their lengths. connect the ropes in minimum cost :  
    <https://practice.geeksforgeeks.org/problems/minimum-cost-of-ropes/0>
* When and why merge sort is preferred over quicksort – time/space complexity
* Make binary tree symmetric – which all cases are possible, which traversal is used and why
* Make half of the linked list reverse (iterative, recursive) and some questions from linked list
* Search a pattern in given string (Simple approach & Using KMP algorithm), handle all the cases
* Convert a given Integer to its corresponding Roman numeral
* Write code for Sudoku Validator in most optimal time and space complexity ?
* Write a code to verify BST Tree and print non-compliant node
* Find duplicate character in a String O(1n) time with no extra space.
* Write code to do three-way partitioning similar to quick-sort.
* Given a 1D Array. Return True if there exists an element where a[i]+a[j] = 0 && i!=j.  
  Reference : <https://www.geeksforgeeks.org/find-a-pair-with-the-given-difference/>

Input : arr = {2,-3,4,1,-6,-4,1}  
Output : True

Input : arr = {2,3,4,1,-6,4,1}  
Output : False

Program for n’th node from the end of a Linked List  
Exactly Same problem : <https://www.geeksforgeeks.org/nth-node-from-the-end-of-a-linked-list/>

Print min & max (both) of all subarray of size k  
Reference : <https://www.geeksforgeeks.org/sliding-window-maximum-maximum-of-all-subarrays-of-size-k/>

* Find the k most frequent words from a file (or a stream of input)  
  Exactly Same problem : <https://www.geeksforgeeks.org/find-the-k-most-frequent-words-from-a-file/>  
  .  
  . <https://www.geeksforgeeks.org/print-nodes-distance-k-given-node-binary-tree/>
* <https://www.geeksforgeeks.org/connect-nodes-at-same-level/>
* <https://www.geeksforgeeks.org/minimum-number-of-jumps-to-reach-end-of-a-given-array/>
* <https://www.geeksforgeeks.org/serialize-deserialize-binary-tree/>
* Rotate a M\*N matrix by k elements in place.
* <https://www.geeksforgeeks.org/topological-sorting/>
* <https://www.geeksforgeeks.org/rearrange-a-given-linked-list-in-place/>
* <https://www.geeksforgeeks.org/gold-mine-problem/>
* <https://www.geeksforgeeks.org/vertical-sum-in-binary-tree-set-space-optimized/>
* Given an unsorted array A, find the largest value of i-j such that A[i]>A[j].
* Given an unsorted array A and a number k, find the maximum sum sub string in the array such that its sum is divisible by k.
* Dfs of a graph.  
  Dfs of a n array tree. (Code was required
* Given a string s and a file with each word on a separate line, find all the words in the file which are anagrams of the string s. The interviewer asked me tell all the possible solutions irrespective of the complexity. This continued for 10 min.
* Given a m\*n matrix find number of paths from (0,0) to (m-1,n-1), at every block we either move 1 step down or 1 step righ
* Print all paths for the above questions. A dp solution was required.
* Given a n\*n matrix with distinct elements from from 1 to n^2, find minimum number of bombs required to destroy all cells of the matrix. If we bomb a cell with value i, a cell with value i-1 if 4 adjacent to it will also be destroyed. (Code was required)  
  What if the the numbers were not unique
* Find majority element in an unsorted array.  
  Find majority element in sorted array. (logN solution was required)
* Print the elements of a tree diagonally.
* Find shortest distance between two nodes of a tree where every node also has a pointer to its parent node and we can also directly jump from a node a to node b, where b is the mirror image of a and a and b belong to the two sub trees rooted at the root of the given tree. The mirror image may or may not exist.
* Find the time required to pass information from root to all the nodes of the tree. [Link](https://www.geeksforgeeks.org/minimum-iterations-pass-information-nodes-tree/)
* Write a program to print all permutations of given string and discuss its working as well as space and time complexity in detail. <https://www.geeksforgeeks.org/write-a-c-program-to-print-all-permutations-of-a-given-string/>.
* 4. Write a program to find number of shapes in Boolean matrix. <https://www.geeksforgeeks.org/find-number-of-islands/>.  He asked me about time complexity and space complexity. At the beginning space complexity of my solution was O(mn). I presented 4 methods and reduced its complexity to O(1). I solved it by both dfs and bfs.
* Write a program for Lowest Common Ancestor in a Binary Tree. <https://www.geeksforgeeks.org/lowest-common-ancestor-binary-tree-set-1/>.
* Write programs for Fractional Knapsack and 0/1 knapsack code of recursive solution and its optimization (concept of dynamic programming). <https://www.geeksforgeeks.org/knapsack-problem/>.
* Write a program and approach for Minimum no. of iterations to pass information to all nodes in the tree. <https://www.geeksforgeeks.org/minimum-iterations-pass-information-nodes-tree/>. I was very close to the solution and he was very impressed by my approach of recursion. He interrupted me between the solution and asked further questions.
* Approach for K smallest element in array. <https://www.geeksforgeeks.org/k-largestor-smallest-elements-in-an-array/>. I presented 3 solutions and heap solution then he asked me about heap and its time and space complexity.
* Approach for Largest Rectangle in Histogram. <https://www.geeksforgeeks.org/largest-rectangular-area-in-a-histogram-set-1/>. I presented two solutions naïve solution and stack based solution.
* Write a program to find position of an element in a sorted array of infinite numbers. <https://www.geeksforgeeks.org/find-position-element-sorted-array-infinite-numbers/>. I presented 3 solutions in most optimized way.
* Write a program for Minimum Number of Platforms Required for a Railway/Bus Station. <https://www.geeksforgeeks.org/minimum-number-platforms-required-railwaybus-station/>.
* Write a program to count set bit of a number. <https://www.geeksforgeeks.org/count-set-bits-in-an-integer/>. I presented 3 solutions and he was impressed by my last solution of using concept of last bit set using formula x&-x.
* Last question similar to the concept of this question sort numbers stored in different machines. <https://www.geeksforgeeks.org/sort-numbers-stored-on-different-machines/>.
* Min Cash flow among friends. <https://www.geeksforgeeks.org/minimize-cash-flow-among-given-set-friends-borrowed-money/>. I solved by n^2 and nlogn complexity. In nlogn I used the concept of heap.