



INTERVIEW
BIBLE

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Why Flipkart

Headquarters: Bangalore, Karnataka, India	Size: 15,000+ Employees
Founded: 5 September 2007	Industry – Internet, Online Retailing
Revenue: US\$ 1 Billion/Year	Founders: Sachin Bansal, Binny Bansal

“ The culture at Flipkart is great. Purely meritorious performance. Agile development. Young and energetic people at work.

“ Not an excellent personal life – work life balance, though manageable

Great place to learn, Great work culture, Great Freedom, Nice Extra curricular Activities.

Free food: Breakfast, Lunch, Dinner, Snacks and unlimited Coffee. Colorful office.

Not skilled and diploma holders are part of the senior management team because of their relationship with the CEOs.

No high end analytics to learn and Culture depends on which team you are part of and how is your business partner.

Company growing at rapid pace. Good compensation.

Fast paced, things pushed to production every weekday.

Potential for career growth is slightly low.

No clear policies for contract employees, salary structure and benefits, Your growth might depend on your political abilities.

Projects variety and option of being an expert in chosen field. Good ways of employee engagement, and adapting to better practices.

“ The Online Megastore ”



Interview Process

A Typical interview process for Software Development Engineer is divided into 4 rounds

- Online Coding
- Two Rounds of Technical Interview
- One Round of HR + Technical interview.

Generally if you applied Off-campus you will be facing two Telephonic rounds after the Online Coding round.

Online Coding :-

Two coding questions will be given and should be answered in 90 minutes only. Generally, we have to complete the function only.

Technical Interview :-

There will be two rounds of technical interview. The two rounds are similar in their difficulty. The first Technical round centers more on Machine Learning and coding. The second Technical round focuses more on Data Structures and Algorithms. There will be time limit for both the rounds depending on the type of questions.

HR interview :-

This round is mostly about your knowledge of Flipkart and questions about your resume and a few technical questions



Sample Questions

Online Coding Questions :-

1 - Given a $m \times n$ grid, each of its element be either '.', 'R', 'G' or 'B',

where '.' -> empty, 'R' -> Red, 'G' -> Green, 'B' -> Blue

A Blue strip has width 1 and length greater or equal to one.

A Red strip has length 1 and width greater or equal to one.

If a Red strip and a Blue strip overlaps, the overlapped portion will become 'G'.

Find the minimum number of strips required to cover the whole grid.

$1 \leq m, n \leq 100$

Ex.

Input

2 4

..B.

..B.

Output

1

Input

5 5

..B..

..GRR

..B..

R....

R....

Output

4

Input

5 5

..B..

..GRR

..B..

B....

B...G

Output

5

Explanation:

Blue strips are vertical.

Red strips are horizontal.

Ex 1:

Only 1 vertical strip from (0,2) to (1,2). [Indexing from (0,0)]

Ex 2:

1 vertical strip from (0,2) to (2,2)

1 horizontal strip from (1,2) to (1,4)

1 horizontal strip from (3,0) to (3,0)

1 horizontal strip from (4,0) to (4,0)

so total — 4



Sample Questions

Online Coding Questions :-

Ex 3:

1 vertical strip from (0,2) to (2,2)
1 horizontal strip from (1,2) to (1,4)
1 vertical strip from (3,0) to (4,0)
1 horizontal strip from (4,4) to (4,4)
1 vertical strip from (4,4) to (4,4)
so total — 5

2 - Given two sets of elements. Find whether the resulting set of LCM of the two sets would be equal or not.

Ex:- Let the set be $X = \{2,3,4\}$

Then the LCM set would be consisting of all the LCM of any subset of the given set.

In this case, $LCM(X) = \{2,3,4,6,12\}$

Constraints:

Number of elements in both sets do not exceed 50.

Range of elements i.e A_i and $B_i \leq 10^9$

3 - Given a network of roads connecting cities and capacity of each road(same for all roads)as well as their cost of repair(unique for each road). Given are the number of buses(n) running between pair of cities using shortest path only. (Capacity of road= No of buses allowed on that road). Unsafe roads are road where no of buses on the road > Capacity of the road.

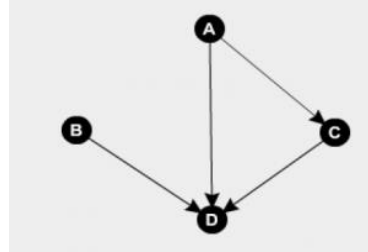
Now given n, minimize the overall cost of all unsafe roads.

4 - You were given a directed graph with n nodes. Given graph was connected. If there is an edge from u to v then u depends on v. Find out the sum of dependencies for every node.



Sample Questions

Online Coding Questions :-



Example:

For the graph in diagram, A dependencies: C,D i.e. 2

B dependencies: D i.e. 1

C dependencies: D i.e. 1

And D depends on none.

Hence answer=0+1+1+2=4.

5 - At Flipkart, an employee has many subordinates. But an employee can also have many managers. And a manager can further have more managers overseeing his work.

A simple "boss-employee-relationship- can be denoted by an arrow '-->'

A --> B --> C

This denotes that A is direct boss of B, who is direct boss of C. Here A is also (indirect) boss of C. It is guaranteed that there is no cycles in this relationship. That is there exists no pair of employees, X and Y, such that X is boss of Y and Y is also boss of X.

The salary of an employee can be calculated on the basis of following rules:

- an employee like C who has no subordinates earns 1.
- An employee who has direct subordinates earns a salary equal to the sum of his direct subordinates' salaries.



Sample Questions

Online Coding Questions :-

"relations" denotes a array of strings, where if the j^{th} character of i^{th} string is 'Y', if employee i is a direct boss of employee j . Otherwise it is "N". You have to display the sum of salaries of all employees.

Complete this function in the code editor

```
int Summing(String[] relations)
```

Constraints

The size of relations array will not have elements greater than 50.

the arrays will only contain string composed of "Y" & "N"
each element of the array has same number of characters

For k^{th} row. the k^{th} element will always be "N"

If X is boss of Y. Y cannot be a boss or X.

Test cases are designed such that answers will always lie within the range of signed 32bit int.

Sample Case #1

Input

Returns: 1

Explanation: There is only one employee, so his salary will be 1.

Sample Case #2

Input

NNYN

NNYN

NNNN

NYYN

Returns: 5

Explanation: It has the following relation.

```

  4
  | \
1 | 2
\ | /
  3

```

So salary of 3rd employee is 1, 1st and 2nd employee is equal to the sum of its (only) employee (3rd) which is 1. Salary of 4th employee is sum of salary of 2nd and 3rd employee which is $1 + 1 = 2$. So total salary is $2 + 1 + 1 + 1 = 5$.



Sample Questions

Online Coding Questions :-

6 - "The future is not always what we expect it to be. 60 years ago, we never thought that the world of humans, as we know it, will undergo such a drastic change. In the final war between the humans and the apes, the apes won, and Ceaser lead his civilization to its zenith," a fellow human prisoner tells another.

"Now some Of them have even learnt mathematics and are trying their best to re-create human machines from ruins. They have asked me to help them start a power generator, or else they'll have no reason to keep me alive."

To start it, a puzzle has to be solved:

You have to complete a function *int optimalCuts(string s)*, where *s* is a string containing 0's and 1's. It has to return smallest positive integer *C*, such that, the bit string can be cut into *C* pieces and each piece is a power of 5. Note that each piece can also represent different power of 5. If no such cut is possible then return -1.

Constraints

- Argument (String *s*) will consists of only '0' and '1'
- $1 \leq \text{length}(s) \leq 50$.

Sample Case #1

s = 101101101

Returns: 3

Explanation: We can split the given string into three "101"s, where 101 is the binary representation of 5.

Sample Case #2

s = 1111101

Returns: 1

Explanation: "1111101" is 125 which is 5^3

Sample Case #3

s = 00000

Returns: -1

Explanation: 0 is not a power of 5.



Sample Questions

Online Coding Questions :-

6 - A person wants to go from origin to a particular location, he can move in only 4 directions(i.e East, West, North, South) but his friend gave him a long route, help a person to find minimum Moves so that he can reach to the destination.

Input – NESNWES

Output – E

You need to print the lexicographically sorted string. Assume the string will have only 'E' 'N' 'S' 'W' characters.

E.g. – SSSNEEEW

output – EESS

7 - A sender will send a binary string to a receiver meanwhile he encrypt the digits. You are given a encrypted form of string. Now, the receiver needs to decode the string, and while decoding there were 2 approaches.

First, receiver will start with first character as 0; $S[0] = 0$, $P[1] = S[1] + S[0]$, $P[2] = S[2] + S[1] + S[0]$ and so on.

Second, Receiver will start with first character as 1; $S[0] = 1$, $P[1] = S[1] + S[0]$, $P[2] = S[2] + S[1] + S[0]$ and so on.

You need to print both the strings, after evaluation from both first and second technique. If any string will contain other than binary numbers you need to print NONE.

Input1; 0123210

Output: 0111000

NONE

explanation for NONE – $S[0] = 1$, $P[1] = S[1] + S[0]$ so $S[1] = 0$
 $P[2] = S[2] + S[1] + S[0]$, $S[2] = 1$

$P[3] = S[3] + S[2] + S[1]$, $S[3] = 2$, not a binary character so
 NONE



Sample Questions

Online Coding Questions :-

8 - Main DNA sequence(a string) is given (let say strDNA) and another string to search for(let say strPat). You have to find the minimum length window in strDNA where strPat is subsequence.

9 - There is a zoo and there are several groups (number of groups:K) of people for tour. Each group is having different size (g1,g2,g3...gK). There is one bus with capacity C. Journey starts from a point and bus will come back to the same point. A group can only be included in the bus if all the members of the groups can be accumulated in bus. After coming back from the tour, each group in the bus will again wait in the queue at the bus-stand. Bus-driver earns a rupee for each person travelled. You have to find the earning of the bus driver after R rounds.

For example :

Number of groups $G = 4$

Group size for each group : 2 4 3 5

Bus capacity : 7

Number of rounds $R : 4$

queue : (from front side) 2 4 3 5

First round : 2 4 (we can't take 3rd group as 3 members can't be accumulated after 2 and 4.)

queue : 3 5 2 4 (1st and 2nd group are enqueued. i.e. 2 and 4)

Second round : 3

queue : 5 2 4 3

Third Round : 5 2

queue : 4 3 5 2

Fourth Round : 4 3

After 4 rounds, total earning is $6+3+7+7 = 23$.



Sample Questions

Online Coding Questions :-

10 - One of the many ways of representing a tree is to have an array(of length same as number of nodes), where each element in the node denotes the parent of that node.

Please note –

- * An element with parent = -1 is the root element.
- * An element with the least index becomes the left most child. (i.e. a node with always be on left of all its siblings that have higher index than it)
- * When printing a level of tree you need to maintain left to right order.

E.g. –

{-1, 0, 0, 1, 1} would represent a tree with –

- * 0 as root
- * 1 and 2 as children of 0
- * 3 and 4 as children of 1

Given a similar representation, you have to print reverse level order traversal of the corresponding tree.

Level order traversal of a tree is where we traverse levels of tree one by one.

E.g. –

For the above given tree, level order traversal would be –

0

1 2

3 4

And hence, the reverse level order traversal is –

3 4

1 2

0



Sample Questions

Telephonic Interview Round I Questions :-

- 1 - Find the square root of a given integer. e.g. 27 output should be 5, for 32 output should be 6.
- 2 - Given a 2D matrix of integers find the maximum sum path in the matrix.
- 3 - Solve Snakes and ladder problem, Given all the inputs for the board. You can roll the dice, as you want to. Need to find the shortest path to reach the 100 level from the starting of the path.
- 4 - Given a file with millions of words, need to find top K words on the basis of occurrence
- 5 - Print the left view of a tree.
- 6 - Given set of words that are lexicographically sorted, find the grammar.
E.g.:
abc
acd
bcc
bed
bdc
dab
The order of letters for the given example would be
a->b->c->e->d
- 7 - Generate all numbers in ascending order which are having factors as 2,3 and 5. Discuss various approaches.
- 8 - Check whether given Binary Tree is a Binary Search Tree. Discuss various approaches.
- 9 - Given an array of n distinct integers sorted in ascending order. Find an index i s.t ar[i] = i. Return -1 if no such index exists. Note that integers in array can be negative.
- 10 - Design a stack which holds an integer value such that getMinimum() function should return the minimum element in the stack.



Sample Questions

Telephonic Interview Round I Questions :-

FOLLOW UP: Implement popMin() function which would pop minimum element from the original stack. $O(1)$ implementation was required. (Hint: Use Linked List to implement stack and store address of minimum element node in min-stack)

11 - Print an organizational hierarchy.

Naveen manages Satish

Satish manages Anushree

Satish manages Sandeep

Gurinder manages Naveen

Gurinder->Naveen

Naveen->Satish

Satish->Anushree,Sandeep

Anushree->

Sandeep->



Sample Questions

Telephonic Interview Round II Questions :-

- 1 - Given a number n, find the largest number small than having the same digits as of n. E.g. 231 output will be 213.
- 2 - Given a long stream of numbers find the largest k numbers at any given point.(I told him I know the question and told the solution, he moved on).
- 3 - Given k arrays of sorted integers, find the minimum range which contains the number from each of the k arrays.
e.g. {-1,4,7},{5,9,15,23},{8,24,25,31} output should be 2 range of {7,8,9}
- 4 - Given a binary tree find all the nodes at k distance from a given node
- 5 - Given a list a1,a2,a3....an. Comparison between elements is given like a1>a2, a3>a5, a4>a2.....etc. Find whether there are any situations that we can sort the list in to the ascending order on the basis of comparison. Yes or No , explain the conditions
- 6 - Given a string example : shoppingwithflipkartiseasy, Now we are given this string and a dictionary containing valid words , now you need to break the sentence into words separated by space. Output : shopping with flipkart is easy
- 7 - Find the largest basin size in a given matrix.

```

9 9 9 8 8 8
8 8 8 7 7 7
7 7 7 7 7 7
8 8 8 8 9 9
5 5 5 5 6 3
5 5 5 3 3 3

```

For the above example, the highlighted values form the maximum size basin.
- 8 - Given a sentence and a set of characters. Find the minimum window within which the set of characters can be found in the sentence in any order.



Sample Questions

Telephonic Interview Round II Questions :-

9 - In a client-server architecture, there are multiple requests from multiple clients to the server. The server should maintain the response times of all the requests in the previous hour. What data structure and algorithm will be used for this? Also, the average response time needs to be maintained and has to be retrieved in $O(1)$.

10 - Given N meetings with their start time s_1, s_2, \dots, s_n and end time e_1, e_2, \dots, e_n and K rooms. How to schedule maximum of N meetings in k rooms.

11 - Given an array which is first strictly increasing and then strictly decreasing. Find an element in this array.



Sample Questions

Personal Interview I / Machine Coding Round Questions :-

1 - You are given a sorted array of size 7 but only 4 elements in it and a sorted array of 3 elements. How would to combine the elements into the first array in such a way that array is sorted.

2 - How do you find if a string is a palindrome or not?

3 - Given a corrupted string i.e. its original string with just the spaces at wrong places, Construct the original string .You are given a dictionary of words.

Ex:-

string : Com put erengineering

original string: Computer Engineering

4 - Given a lane where there are various houses each containing a fixed amount of gold. Now a robber has to rob the houses such that when he robs a house the adjacent one cannot be robbed. Calculate the maximum amount of gold collected by him.

5- Given 1000 elephant ,none of whom exact heights are known, there are statements given which will be of two forms

3.i- E_i is taller than E_j

OR

3.ii- E_i is smaller than E_j

Calculate the ascending order of the elephants(in terms of height).

6 - Topologically sort the DAG(excluding forest arrangement) given if the source is not known.

For Ex: if edges are $1 \rightarrow 2, 1 \rightarrow 3, 2 \rightarrow 4, 3 \rightarrow 4$.



Sample Questions

Personal Interview I / Machine Coding Round Questions :-

7 - Given a pond where all the stones are lined at a distance of one unit (C in each row and there are R such rows), each stone has a special value which denotes the length of the jump the frog can make i.e if frog is on stone (x,y) and value is k then frog can jump to (x+dx, y+dy) where $dx+dy=k$ and frog doesn't leave the bounds. Find the minimum number of jumps to reach the stone at (R,C).

8 - Given two very large numbers a & b in string format. You need to produce the result for the following operation:

0 : Add a & b

1: Subtract a & b

2: Multiply a & b

Example:

123456789

987654321

Output:

0 ==> 1111111110

1 ==> -864197532

2 ==> 1219326313718945259

Few cases were checked specifically:

- Output of 132-132 must be 0 not 000.
- $2 - 122222000002$ should produce -122222000000 i.e either a or b can be the bigger string
- Negative input should be handled. Result of $-2+202 = 200$
- $1000000000 - 1 = 999999999$ i.e. resulting answer can be of different length.

9 - Word Wrap problem with few conditions

- there can be maximum of X characters in a single line.
- there can be maximum of Y number of spaces in the end of the each single line.



- if a string length is big enough, so that it cannot be printed in single line, use '-' in the end of the line and print string further in the different line.
- also there should not be '-' consecutively in the end, if the string contains already '-' in the end don't put '-' character.

flip-

kart

- E.g.. This is a flipkart online programming test.

$$x = 10 \quad y = 3$$

Output

This is a

flipkart

online pr-

ogramming

test.

10 - Create an employee database structure in which

Employee has id, name, manager. Three functionalities required were

- Given any id return all the employee details
- Given any name(or id) list all the subordinates of the given employee.
- Given a name search with prefix search property.

Sample Questions

Personal Interview I / Machine Coding Round Questions :-

11 - Write code to parse an XML and do the following options by not hardcoding any value.

- 1) Validate the XML.
- 2) Given a level number, print all values of tags in the same level.
- 3) Search
 - a tag name for a given value
 - for value of any tag given a value of tag at any sub levels.

12 - Given a string regex and another string pat find whether the pattern is acceptable against given regex string.

Regex string contains following characters and special characters:

Normal alphabets – a to z and A to Z

- '\$' – all string should end with all characters preceding \$

Example:

Regex :abc\$,

Pattern: abcd(Not acceptable) , abc(acceptable), ab(Not acceptable), dhfusdhabc(acceptable) etc..

- '^' – all string should start with all characters exceeding ^

Example: Regex : ^abc

Pattern: abcd(acceptable) , abc(acceptable), ab(Not acceptable), dhfusdhabc(NOT acceptable) etc..

Regex: ^ then only pattern acceptable is null.

- '.' – any character can be mapped to dot except null

Example 1: Regex : .abc

Pattern: Zabc(acceptable) , abc(NOT acceptable), ab(Not acceptable), habc(acceptable) etc..

Example 2: Regex :a.bc

Pattern: abc(NOT acceptable) , aXbc(acceptable), ab(Not acceptable), habc(NOT acceptable) etc..



Sample Questions

Personal Interview I / Machine Coding Round Questions :-

- '*' - the character just preceding * can be repeated n time where $(n \geq 0)$

Example 1: Regex :abc*de

Pattern: abccccccccccde (acceptable), abcde(acceptable), abcccd(not acceptable)

Code should follow OOPs principle such as modularity (make each function for each special character), encapsulation etc.

13 - Write a running code in any language to implement the famous tic-tac-toe game.

Design this game as per following:

- 1) Game has 3 modes: Human Vs Human, Human Vs Computer and Computer Vs Computer.
- 2) Initially start with 3X3 grid, but it can be generalized to NXN grid. So don't hardcode any variable.
- 3) Minimize Code Redundancy and try to make it as modular as possible.
- 4) Try to use abstraction and expose lesser number of functions(APIs) to outside world.
- 5) Try to cover maximum number of edge cases, like when to abort the game, draw condition, win condition, overwriting existing value in grid etc)

14 - Input :

List of edges are given in the format (source, destination) → (s1,d1) (s2,d2)...

There are some error codes with priority.

- 1 – Loop
- 2 – Multiple roots
- 3 – More than two children



Sample Questions

Personal Interview I / Machine Coding Round Questions :-

Output :

Indicate the error (considering the priority) in case of any error and exit the program.

Print the tree structure in the bracket notation in case of no errors.

(e.g. (A(B(D)(E))(C(F)(G))) .. Here A is root. B and C are children of A. D and E are children of B. F and G are children of C.)



Sample Questions

Personal Interview II Questions :-

- 1 - Find the first occurrence of a digit(1-9) other than zero in a stream of integers in less than $O(n)$. Given you can't have the access to the memory location where stream is written.
- 2 - Given stock prices in an array. Find the buying and selling time so that profit earned is maximum.
- 3 - Implement LRU and LFU page replacement policy using Data structures.
- 4 - Given a normal die and a blank die. Fill in the blank die such that probability of sum of the number from both die is same for all the resulting sum and sum has a range from 1 to 12.
- 5 - Given the mobile numeric keypad. You can only press buttons that are up, left, right or down to the current button. You are not allowed to press bottom row corner buttons (i.e. * and #).



Given a number N, find the number of numbers possible of given length. It was asked to write the code.

Example:

For $N=2$

Possible numbers: 00,08 11,12,14 22,21,23,25 and so on.

We have to print the count of such numbers.



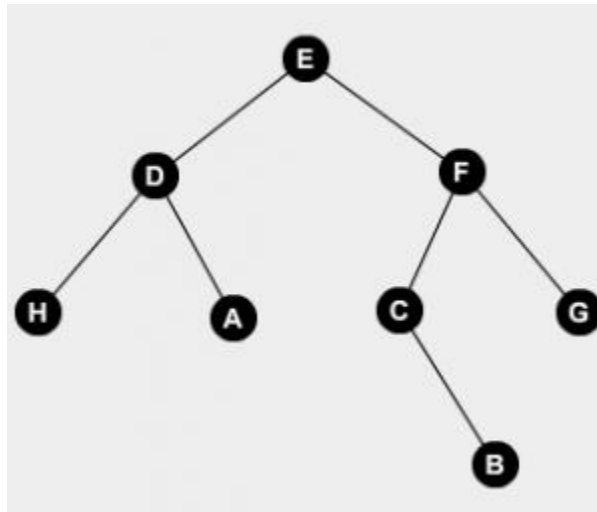
Sample Questions

Personal Interview II Questions :-

6 - Given a undirected graph with following special points:

- 1) Every node has at most 3 links.
- 2) Node with a single link is a leaf node.
- 3) Nodes are numbered from 1 to N.

We do the following operation on the given graph: Among all the current leaf nodes we search for the node with minimum node value, delete it and print its parent. We do this operation until only two nodes are left in the graph.



If you are given N and an array having the printed values from the operation, you have to generate the graph back. Exact implementation was asked to write.

Example:

N = 8

ar[] = {4,3,6,6,5,4}

Output should be adjacency matrix for the following graph.



Sample Questions

Personal Interview II Questions :-

7 - You are given an array(say C) of characters and an array(say M) which contains the indexes of the array of characters.

We started moving elements of array(C) according to the position of indexes given in the array(M).

e.g. array A – a b c d e f g

array M – 1 4 3 5 0 2 6

so array A will change in first to – e a f c b d g

again applying same – b e d f a c g

again applying – a b c d e f g

so after 3 times we got the same sequence of characters.

Find the minimum number of times modification on the array (A) so that the we will again reach to the initial order.

8 - All bandits are afraid of Sheriff. Sheriff constantly fights crime, but when bandits lay low, he gets bored and starts to entertain himself.

This time Sheriff gathered all the bandits in his garden and ordered them to line up. After the whistle all bandits should change the order in which they stand.

Sheriff gave all the bandits numbers from 1 to N. For each place **i** he determined the **unique** position **j**. After whistling the bandit staying on position **i** should run to the **j**-th position. Sheriff loved seeing how the bandits move around, and he continued whistling until the evening. He finished the game only when he noticed that the bandits are in the same order in which they were standing originally.

Now the Sheriff asks the question: How many times has he whistled?



Sample Questions

Personal Interview II Questions :-

Input

The first line of the input contains an integer **T** denoting the number of test cases. The description of **T** test cases follows. The first line of each test case contains a single integer **N** denoting the number of bandits. The second line contains **N** space-separated integers **A₁, A₂, ..., A_N** denoting that the bandit staying on position **i** should run to the **A_i**-th position after the whistle.

Output

For each test case, output a single line containing number of times the sheriff had to whistle, print it modulo $10^9 + 7$.

Constraints

$$1 \leq T \leq 5$$

$$1 \leq N \leq 100000$$

All **A_i** are distinct numbers from **1** to **N**

Example

Input:

```
2
3
1 2 3
5
2 3 1 5 4
```

Output:

```
1
6
```

Explanation

Example case 2.

the bandits positions are:

0. 1 2 3 4 5
1. 3 1 2 5 4
2. 2 3 1 4 5
3. 1 2 3 5 4
4. 3 1 2 4 5
5. 2 3 1 5 4
6. 1 2 3 4 5.



Sample Questions

Personal Interview II Questions :-

- 9 - Merge k sorted arrays.
- 10 - Given a tree with edge weights, find any path in the tree with maximum sum of edges.
- 11 - Given a maze, a start point and end point find the shortest path to reach the end point from the starting point.
- 12 - Given a polygon and a point, find whether the point lies within the polygon or not.
- 13 - Generate n numbers in ascending order which are having given k factors.
- 14 - Given a sorted and rotated array. Find an element in this array.
- 15 - This was an interesting problem. Given a set of intervals like 5-10, 15-20, 25-40, 30-45, 50-100. Find the i^{th} smallest number in these intervals.
Assume there are no duplicate numbers.
e.g.: 1st smallest number = 5
6th smallest number = 10
7th smallest number = 15 and so on.
- 16 - Given a dictionary of 50,000 words. Given a phrase without spaces, add spaces to make it a proper sentence.
e.g. :input: thequickbrownfoxjumpoverlazydog
output: the quick brown fox jump over lazy dog
- 17 - Worst case complexity of finding a word in HASHMAP given we have 'B' buckets and total of 50,000 words.
- 18 - Complexity of finding a word in TRIE.
- 19 - Advantages of TRIE over HASHMAP
- 20 - Design and code the Sudoku solver.
- 21 - A document and a list of words are given. You have to find minimum length window in the document where all the words can be found.



Sample Questions

Personal Interview II Questions :-

22 - A 2-D matrix is given where each cell represents height of cell. Water can flow from cell with higher height to lower one. A basin is when there is no cell with lower height in the neighbors (left, right, up, down, diagonal). You have to find maximum size basin block.

Example :

9 9 9 8 7 7

8 8 7 7 7 8

8 8 8 7 7 7

8 8 8 9 9 9

8 8 8 7 7 7

4 4 5 5 5 5

5 5 5 6 6 7

5 5 5 8 8 6

Here there are two basins.

9 9 9 8 **7 7**

8 8 **7 7 7** 8

8 8 8 **7 7 7**

8 8 8 9 9 9

8 8 8 7 7 7

4 4 5 5 5 5

5 5 5 6 6 7

5 5 5 8 8 6

Maximum basin block size : 8



Sample Resume I – Page 1

Professional Experience

➤ Present Company

Flipkart India Internet Pvt Ltd.

July '11 – present

Software Developer . Job title – SDE-1.

I am working with the CMS team. This is the backend team for website.

During this tenure:

- Have worked on frameworks like rails, grails and efficient in JAVA.
- Worked in teams of size 1-5.
- Have owned individual modules from scratch and maintained it.

Major projects:

- Designed and developed the DAL (Data Access Layer) for an entity.
- Automation of category launch to make it usable by business team without dev team involvement(deployment). Earlier this was a 2 day process, Now its done within hours.
- API development of the categories structure on website.

➤ Internships

IBM ISL Extreme Blue Internship

May 10 - July 10

Project : StorGEM:

STORGem is a NAS appliance which along with all standard NAS protocols supports pay-per-feature functionalities. It supports 5-50 TB data storage. The key feature is that instead of running all the pay-per-feature functionalities on a separate server, in STOR-Gem they are being run on a single device via virtualization. During the 2 months internship we developed a prototype for the same.



Sample Resume I – Page 2

Technical Skill Set

Programming Languages	C, C++, Java, Ruby
Frameworks	Rails, Grails
Databases	MySQL
Operating Systems	Windows, Linux

Co-curricular Activities

Projects Undertaken:

➤ **Configuration of storage system**

May '10 – May '11

Description: M.Tech Final year Project

To configure the storage system for a company at Research park. Did analysis of the various distributed file systems and developed a middle layer between the webserver and the filesystem.

➤ **Shapefile Editor**

Jan '08 – Apr '08

Description: The project is a part of 8th semester industrial training project in BISAG. This is a standalone GIS(Geographic Information System) application in VC++. It is used to edit the vector data file which is stored in a file called shapefile. Hence using this application one can edit the various records of the point, polyline and polygon type shapefile.



Sample Resume II – Page 1

OBJECTIVE

To strive for Excellence in the field of software development – with dedication, focus, proactive approach, positive attitude and passion and to utilize my knowledge and skills in the best possible way for the fulfillment of organizational goals.

SKILLS & EXPERTISE

- Apache Hadoop (HDFS , HBASE)
- SOLR
- Algorithms
- Data Structures
- Proficiency in Java
- Python (Core)
- C++
- Experience with Git and Maven
- Experience working on Linux environment

WORK EXPERIENCE

Flipkart Internet Private Limited
Software Development Engineer (Intern)

January 2012 — May 2012



Sample Resume II – Page 2

Flipkart Internet Private Limited

June 2012 — Present

Software Development Engineer

Brief Work at Flipkart.com

- As a developer member of Hoodoo (a project code name of), the generic, distributed, scalable and configurable data store which supports storing entities and relationships between them.
- As working for an e-commerce, where the major vertical is book. I took the lead to propose the design of how book's products indexing should work, what attributes to index and what attributes to search on –etc and it was accepted by the team. This ended up having huge positive impact on the system. This ultimately helped in defining relationship among book's products.

Platform / Software used : Java, Hadoop (HBASE), SOLR, JUnit Test Framework

INTERESTS

Distributed Systems, Hadoop, Algorithms, Data Structures, Mathematics

QUALIFICATIONS

- Bachelor of Technology , IT
Indian Institute of Information Technology - Allahabad (2008 - 2012).

EDUCATION

Bachelor of Technology , IT

July 2008 — June 2012

Indian Institute of Information Technology - Allahabad

Obtained the Bachelor of Technology degree in Information Technology.

PROJECTS

1. Solving Job Shop Scheduling Problem using Genetic Algorithm (January 2011 – April 2011)

It is a research problem. Project was aimed at scheduling J jobs over M machines with specified constraints to get the optimized results.

Being a well known NP hard and extensively constrained problem, GA (Genetic Algorithm) is used to obtain the optimal results.



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