

Interview Question

Questions:

1. Queue from two stacks?
2. Push, Pop, Min in $O(1)$ in stack?
3. Is tree BST?
4. Find closest number in BST?
5. Find two numbers having sum equal to the given number in BST?
6. What is JRE?
7. How to check number is power of 2?
8. Difference between interpreter and Compiler?
9. What is byte code?
10. What is JQuery?
11. Design Patterns?
12. What is normalization?
13. ACID properties?
14. Network layers in sequence?
15. Static and global difference?
16. Difference between DBMS and RDBMS?
17. What is Diamond problem?
18. What is Polymorphism, Inheritance, Association, Aggregation?
19. What is Virtual Table?
20. Why we make virtual functions?
21. Quick Sort algorithm?
22. Heap sort algorithm?
23. Difference between Abstract class and Interface?
24. Difference between Class and Struct?
25. What is Unique Key?
26. What is the difference between unique key and primary key.
27. What are store procedures?
28. Difference between functions and stored procedures?
29. What are triggers?
30. What is boxing and unboxing?
31. Why Java is platform independent?
32. What is Serialization?
33. Binary mutex and semaphore?
34. What is Synchronization?

Link-list

1. Find Middle.
2. Find loop from link list also remove loop
3. Write isBST function.
4. reverse the link-list

OOP Questions

1. Can we make static classes?
2. Purpose of static classes

3. Scope of static objects
4. Static variables
5. Calling of non static method and data members in static functions
6. Calling of static functions and data members in non static functions

These questions are all related to java concepts and C++

7. Abstraction (not abstract classes)
8. Calling of grand parent method from child in java

Design patterns

1. Proxy pattern
2. Observer pattern
3. Singleton pattern

Coding part

1. Write binary search code
2. Find key if size of the array not known in minimum time complexity
3. Print first left child then right child from a tree.
4. Find subsequence arrays from an array

Operating system

1. If we have to build a new operating system then what necessary features should be in it?
2. If 32 bit window is then what will be the memory size

Compiler construction

1. How compiler identifies tokens, semantics, parse tree. Open discussion.

Database

1. How to represent 1 to many relation in database schema if employee (id,name) works for department(id, name)
2. If employee table has attributes e_id, name, d_id then what is the purpose of using foreign key d_id means why we are making composite key(e_id, d_id)
3. Normalization, indexing, anomalies etc.

Coding part:

1. Find if a string has a palindrome e.g "abac" is not a palindrome but has "aba" substring that's a palindrome.
2. You have an array of 100000 elements containing numbers in range 0.100.. Your task is to make a function that return a new array of unique elements found in given one.
3. Consecutive maximum sequence in an array i.e. in array = {1,6,4,2,3,7,8} the max sub sequence is {1,2,3,4}

Theoretical:

1. Garbage collector, class, encapsulation, Interface, Object VS instance
2. Hashing

Operating system:

1. Locks, Addressable memory, Thread VS process

Networking:

1. OSI model, link layer of OSI

DB:

1. De-normalization and its benefits

Analytical part:

1. You have 8 bottles (1 with poison in it). You can't distinguish that bottle by any thing like color, taste. Now there are 3 person and unko bottle pila k apne batana he k kis me poison tha.

Binary Tech interview Questions:

1. Maze problem (recursive)
2. You've a file consisting of 1 billion numbers [sorted (Binary Search), unsorted (Bit Set)], You have to find out the missing number...
3. You've a BST and is given a number.. You've to find 2 numbers from the tree whose sum is equal to given number
4. Design patterns.
5. Hashing

Techlogix interview questions:

1. Mostly the questions were asked from the subject, jinki apne TAs ki ho ya jo ap kaho k apko pasand hn. So be careful in that.
2. Design patterns
3. In java objects are passed by reference or by value?
4. Pointers are passed by ref or by value?
5. Find Mth node from last of link list (in one pass)
6. Which one is better, single or double link list?
7. You've to design a sorting library that contains multiple sorting algos (i.e. bubble sort, insertion sort etc.).

Tekxel interview Questions:

1. Reverse the link list recursively
2. Palindrome
3. Swapping
4. Shuffle the array randomly so that no element repeats...
5. Anagrams in a dictionary. You've a word and have to find it's anagrams?
6. Finding first unique element in an array
7. Remove duplicate elements in array
8. Finding intersection point of 2 link lists + finding the loop in link list

Analytical:

1. 2 egg problem (You've 2 eggs and 100 floor building. u have to find min floor from which that egg will break)
2. 3 bulb problem.