
Coding Interview Questions and Answers

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INTRODUCTION

DATA STRUCTURES, ALGORITHMS,
CODE OPTIMIZATION

QUESTIONS AND ANSWERS

How will you find kth smallest element of a Binary Search Tree You have an array of size n containing integer in the range 1 to n. Each number is present at least once, except 2 numbers, how will

you find the missing numbers

Given a string, find the first un repeated characters in it

You have 2 dictionary words, word1, word2, you have only 3 operations, add a character, delete a character, replace a character, find the minimum number of steps required to transform word1 into word2

How to convert a decimal number into hexadecimal

You are given a set of coins, given an amount, find the minimum number of coins required to get the exact amount

Given two sets, write a function to return union of the sets How will you read a random character from a stream,

constraint is you just have one space to store character

How will traverse binary search tree in preorder(Depth first), inorder(Symmetric), postorder, level order

How will you delete a tree?

How will you reverse a link list?

How will you reverse a link list using recursion

Given m red balls and n blue balls and o containers how will you distribute balls among containers such that probability of picking red ball is maximized, assuming that user chooses a random container and then picks a ball randomly.

Find the second largest element in an array with minimum set of comparisons

How will you optimize below piece of code

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*How will you optimize below piece of code?
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To copy a huge data structure to another variable, will you prefer local variables or static variables

To perform a complex calculation will you prefer java or stored procedures

How to declare a "register" variable in Java? How to convert a binary search tree to an array? Write a function to delete linked list.

How will you reverse a linked list using recursion?

How to traverse binary tree in preorder, inorder and postorder How to traverse binary tree in inorder(Symmetric traversal) How to traverse binary tree in Postorder

How to travel a binary search tree in level order How to find duplicate numbers in array?

Suppose you got 1 million files. You need to total count frequency of each word in all these files, how will you go about it?

Given two sets, Write a function to provide the union of them Given an array of size n , containing every element from 1 to

$n+1$ except one, how will you find the missing number?

What is the time complexity of merge sort and when is it preferred over quick sort?

How to find Nth Last element in a linked list

Given a $n \times n \times n$ cube, find the number of smaller cubes on the surface

Write a function that takes a regular expression and a string as input and returns true or false based on whether string matches regular expression or not

How will solve Jigsaw puzzle? Assume you have an algorithm to tell you whether two pieces fit together or not

Assume you have one million html files, some of which contain phone numbers, how will you create a list of files having phone numbers?

Suppose you own a website, how will you determine most viewed pages of your website

Given an array of positive integers, find maximum sum of a sub sequence with the constraint that no two numbers in the sequence should be adjacent in the array, e.g. 5 10 1 2 will return 12, etc.

You have 25 horses, only 5 horses can ran race, how many race will you take to determine top 3 horses?

Estimate, how many lifts are not functioning today in our city? How will you ensure that, anything lost/stolen can be easily

tracked and returned to correct owner of the item?

Break a stick in 3 random pieces, what is the probability that these pieces will form a triangle?

Suppose, you ended up in an island where people either tells truth or lie, you met two people, what is the single question should you ask to one person to find out direction for your de

JAVA INTERVIEW QUESTIONS AND ANSWERS

What is output of following program?

Can you have virtual function in java?

Can a lock be acquired on a class?

What pattern will you use to improve following code

How to provide secure web services?

What is wsdl used for?

Is java call by value or call by reference

What is the output of the below code and explain?

What is the difference between Web Server and Application Server?

Write a sample code to print the below pattern where n is number of rows.

Write the code for above pattern using java recursion Is Iterator a Class or Interface? What is its use?

What is similarities/difference between an Abstract class and Interface?

We cannot instantiate either abstract class or interface Describe the principles of OOPS.

What all access specifies are available in Java?

Describe the wrapper classes in Java What is the output of below program What is the class variable?

What is the difference between the instance of and getClass What is Externalizable?

*What are the different identifier states of a Thread?
What are some alternatives to inheritance?
Why isn't there operator overloading?
Is null a keyword?*

Which characters may be used as the second character of an identifier, but not as the first character of an identifier?

How many bits are used to represent Unicode, ASCII, UTF-16, and UTF-8 characters?

When and on what conditions will you decide whether to use linked lists or arrays

*What is Difference between Vector and ArrayList?
What's the difference between a queue and a stack?*

*What is difference between array & arraylist?
Can you limit the initial capacity of vector in java?*

What is the difference between Enumeration and Iterator? What is Does the code in finally block get executed if there is

an exception and a return statement in a catch block

Create a class for which maximum two instances can be created

*Which of the following are not Java keywords?
Which of the following are not valid java identifiers?*

Which of the following lines will compile without warning or error?

Which of the following will output 19.0?

What will happen if you try to compile and run the following code

*Which of the following are true
What is the output of the following program?
Which of the following are true
Which of the following is associated with Enumeration?*

Given the following declaration and instantiation of a 2D array: `int[][] myarray = new int[2][3];` What code below would correctly initialize all elements of the second row of values of 11?

A class must always define at least one constructor.

What will be the output of the program?

What will be the output of the program?

What is output of below program?

What will be the output?

What will be the output of the program?

What will be the output of the program?

What will be output of the below program

What will be the output of this program

What will be the output of this java program

Which line is an example of an inappropriate use of assertions?

What will be the output of the program?

Which statement is true for java.util.ArrayList?

Which line of code from the below snippet is suitable to start a thread ?

DATABASE INTERVIEW QUESTIONS AND ANSWERS

When to not use index?

What is tempdb?

How will you find out all the stored procedures present in a database?

What is the difference between IN and EXISTS ?

What database parameters can be tuned for performance?" What is bcp?

Suppose you are logged onto a database DB1. What query will you run in DB1 to retrieve data from the table table1 present in another database DB2?

What are main Open source databases?

What is a View?

There is a table "Employee" having two columns – Emp_Name and Office_Locations. Write a query that will display all office locations and the number of employees in each of these locations.

Write a query to get the employees, who are also managers

How to get name of database?

How to get database version?

If table is truncated, can it be roll backed?

What is clustered index? How many Clustered indexes can you have on a table.

What is "MINUS" used for?

Write a query to get all the employees who are managers Write a query to get all the employees who do not have

managers

Suppose a table X has 3 duplicate rows and you want to delete 2 redundant rows

There is a table "Employee" having two columns – Emp_Name and Office_Locations. Write a query that will display all office locations having more than 100 employees.

Can a table span multiple partitions?

What is foreign key?

How to remove duplicates from a table?

How do you measure performance of a stored proc?

How do you define constraints?

What all constraints are supported by MYSQL?

