# Top 100 Interview Programming questions, that help you to get a job

There are usually random questions asked.

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swiping Programlike a=50;b=10;output:- b=50, and a =10Answer: Solution
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2. sort array without the use of a sort function

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input :-var a= [1,2,5,3,4,6,7,8];
output :-var a=[1,2,3,4,5,6,7,8];
Answer: Solution
```

3. write a program that generates 50 prime number example of prime number is :- 2,3,5,7,9,11,13,17,19,23,29....

Answer: Solution

4. reverse string without loop or predefined function(like reverse)

Like: var name ="shirsh" after reverse: var name ="hsrihs"

Answer: <u>Solution</u>

5. Create and Add a two matrix 2x2 or 3x3.

Answer: **Solution** 

6. Count repeated items in a String.

Like: var name = "Shirsh"

so, "s"=2 times, "h"=2 times, "i"=1 time, "r"= 1 time

Answer: **Solution** 

7. how to check the name of the number in English?

For: if I assign any variable:- var num =**121** 

so print this number in English letter, means on console print

result is -:

"one hundred twenty-one"

Answer: **Solution** 

8. How to get the matching characters and non-matching characters in a string.

Example:-

*Input:* str1 = "abcdef", str2 = "defghia"

Output: 4

Matching characters are: a, d, e, f

Answer: Solution

9. How to calculate the number of vowels and consonants in a string?

Answer: **Solution** 

10. Determine the factors of a number.

Answer: **Solution** 

11. Compute the first Ten Fibonacci numbers.

Answer: Solution

12. How to get the third node of a linked list?

Answer: Solution

13. How to search for a specific value in a linked list?

Answer: Solution

14. How to remove special characters in a string that is in lowercase?

Answer: **Solution** 

15. How to find multiple missing numbers in a given integer array with duplicates?

Answer: Solution

16. How to find all permutations of String?

Answer: Solution

17.writes a program for Sudoku.

Answer: Solution

18. How to check if a given number is a Palindrome?

Answer: Solution

19. How to calculate the average of all numbers in a given array?

Answer: Solution

20. Write a Program to check if a given year is a leap year.

Answer: Solution

21. Write Program to check whether the number is Palindrome or not.

Answer: Solution

22. Write a Program to check whether the number is a Narcissistic number or not.

Answer: **Solution** 

23. Write a Program to print all numbers of a list in a random manner and all numbers should be only one, without using any pre-defined function.

input :- a= [1,2,5,3,4,6,7,8,8,8,9,9,9]; output :- a = [2,4,9,7,1,3,6,5,8]; Answer: if you have Please comment below.

24. Find the Fastest way to find an index of elements in a list.

(ex:-binary search)

input :- var list =[1,2,3,4,5,6,7,8,9,10,11,12,13,14]; var numFind =2;

output:- 1 Index

Answer:- Solution

25. Find the sum of all natural numbers without using any regression or any loop.

Answer:- Solution

26. Find the nearest smaller numbers on the left side in an array.

Answer:- Solution

27. Find the minimum number of coins that make a given value.

Input: V = 70

Output: 2

We need a 50 Rs note and a 20 Rs note.

Answer:- <u>Solution</u>

28. Find the index of two array elements whose sum is equal to the given value

#### Coding interview questions for arrays

- How do remove duplicates from a given array?
   (solution)
- 2. How do you search for a target value in a rotated array? (*solution*)
- 3. How do you find the missing number in a given integer array of 1 to 100? (*solution*)
- 4. How do you find the duplicate number on a given integer array?(solution)
- 5. How do you find the largest and smallest number in an unsorted integer array?(solution)

- 6. How do you find all pairs of an integer array whose sum is equal to a given number?(solution)
- 7. How do you remove duplicates from an array in place? (solution)
- 8. How to rotate an array left and right by a given number K? (*solution*)
- How do you find duplicates from an unsorted array?
   (solution)
- 10. Given an array of integers sorted in ascending order, find the starting and ending position of a given value.(solution)
- 11. Given an unsorted array of integers, find the length of the longest consecutive elements sequence.(solution)
- 12. How is an integer array sorted in place using the quicksort algorithm? (*solution*)
- 13. Given an integer array, find the contiguous subarray (containing at least one number) which has the largest sum and return its sum.

  (solution)
- 14. How do you reverse an array in place in Java? (solution)

- 15. How are duplicates removed from an array without using any library? (*solution*)
- 16. How to convert a byte array to a String? (solution)
- 17. What is the difference between an array and a linked list? (solution)
- 18. How do you perform a binary search in a given array? (*solution*)
- 19. How to find a median of two sorts of arrays? (solution)
- 20. How do you find duplicate numbers in an array if it contains multiple duplicates?(solution)

# Coding interview questions about linked lists

- How do you reverse a linked list?
   (solution)
- How to add an element in the middle of the linked list?
   (solution)
- 3. How to find the node at which the intersection of two singly linked lists begins.

(solution)

- 4. How to check if a given linked list is a palindrome or not? (*solution*)
- 5. How do you find the middle element of a singly linked list in one pass? (*solution*)
- 6. How do you check if a given linked list contains a cycle? How do you find the starting node of the cycle?

  (solution)
- 7. How do you find the third node from the end in a singly linked list? (*solution*)
- 8. How do you find the sum of two linked lists using Stack? (*solution*)
- 9. How to Delete all occurrences of a given key in a linked list? (*solution*)
- 10. How do you reverse a linked list?(solution)
- 11. How do you sort a linked list in Java? (*solution*)
- 12. What is the difference between the array and linked list? (*Solution*)
- 13. How to remove Nth Node from the end of a linked list? (solution)

- 14. How to merge two sorted linked lists? (solution)
- 15. How to convert a sorted list to a binary search tree? (*solution*)
- 16. Given a linked list and a value *x*, partition it such that all nodes less than *x* come before nodes greater than or equal to *x*. (*solution*)
- 17. How to remove duplicates from a sorted linked list? (*solution*)
- 18. How do you reverse a singly linked list without recursion? (*solution*)
- 19. How are duplicate nodes removed in an unsorted linked list?(solution)
- 20. How do you find the length of a singly linked list? (*solution*)

## **Coding interview questions for strings**

- How do you reverse a given string in place?
   (solution)
- 2. How do you print duplicate characters from a string? (*solution*)

- 3. How do you check if two strings are anagrams of each other? (*solution*)
- 4. How do you find all the permutations of a string? (*solution*)
- 5. How can a given string be reversed using recursion?(solution)
- 6. How do you check if a string contains only digits? (*solution*)
- How do you find duplicate characters in a given string?
   (solution)
- 8. How do you count the number of vowels and consonants in a given string? (*solution*)
- 9. How do you count the occurrence of a given character in a string? (*solution*)
- 10. How do you print the first non-repeated character from a string?(solution)
- 11. How do you convert a given String into int like the atoi()? (solution)
- 12. How do you reverse words in a given sentence without using any library method?(solution)

13. How do you check if two strings are a rotation of each other?(solution)

- 14. How do you check if a given string is a palindrome? (*solution*)
- 15. How to find the length of the longest substring without repeating characters?
  (solution)
- 16. Given a string, find the maximum length contiguous substring of it that is also a palindrome. For example, the longest palindromic substring of "bananas" is "anana", and the longest palindromic substring of "abdcbcdbdcbbc" is "bdcbcdb".

(solution)

- 17. How to convert a byte array to a String? (*solution*)
- 18. how do remove the duplicate character from String? (*solution*)
- 19. How to find the maximum occurring character in a given String? (*solution*)
- 20. How do you remove a given character from a String? (*solution*)

- How do you implement a postorder traversal algorithm? (solution)
- 2. How do you traverse a binary tree in postorder traversal without recursion?(solution)
- 3. How are all leaves of a binary search tree printed? (*solution*)
- 4. How do you count the number of leaf nodes in a given binary tree? (*solution*)
- 5. You have given a BST, where two nodes are swapped? How do you recover the original BST?(solution)
- 6. How is a binary search tree implemented? (solution)
- 7. How do you perform preorder traversal in a given binary tree? (<u>solution</u>)
- 8. How do you traverse a given binary tree in preorder without recursion? (*solution*)
- 9. How do you perform an inorder traversal in a given binary tree?(solution)

- 10. How do you print all nodes of a given binary tree using inorder traversal without recursion?(solution)
- 11. How do you convert a binary tree to a binary search tree? (*solution*)
- 12. Find the largest BST subtree of a given binary tree. (solution)
- 13. Write a program to connect nodes at the same level as a binary tree. (*solution*)
- 14. What is a Trie data structure? (*solution*)
- 15. How do you perform a binary search in a given array? (*solution*)
- 16. How to Convert a given Binary Tree to a Doubly Linked List?(solution)
- 17.Write a Program to Find the Maximum Depth or Height of a Tree.

(solution)

18. What is the difference between binary and binary search trees?

(solution)

- 19. What is a Self-Balancing Binary Search Trees? (*solution*)
- 20. What is the AVL Tree? (solution)

### **Coding interview questions for Graph**

- Print Adjacency List for a Directed Graph.
   (solution)
- what is the Difference between BFS and DFS? (solution)
- 3. Write a to Count all possible paths between two vertices. (*solution*)
- Find the minimum number of throws required to win a given Snakes and Ladders board game.
   (solution)
- Find a Word in a 2D Grid of characters.(solution)
- 6. Find the Distance of the nearest cell having 1 in a binary matrix.

(solution)

7. Find the number of islands.(solution)

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8. Find a Mother Vertex in a Graph.
  (solution)
9. Implement Dijkstra's Algorithm
  (solution)
       Find the most similar path in a graph.
10.
  (solution)
11. Given a sorted dictionary of an alien language, find the order
  of characters.
  (solution)
       Check whether a given graph is Bipartite or not.
12.
  (solution)
       Keys and Rooms question.
13.
  (solution)
       question on Articulation Points (or Cut Vertices) in a
14.
  Graph.
  (solution)
       Tarjan's Algorithm to find Strongly Connected
15.
  Components.
  (solution)
       How to find all bridges in a graph?
16.
  (solution)
17. what is Maximum Bipartite Matching?
  (solution)
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- 18. Find all possible worlds in a board of characters(Boggle) (*solution*)
- 19. Given a matrix of 'O' and 'X', replace 'O' with 'X' if surrounded by 'X'.(solution)
- 20. find the Shortest path to reach one prime to another by changing a single digit at a time.(solution)