Python Coding Questions - Strings and Arrays

String Questions (50)

1. Reverse a string.

2. Check if a string is a palindrome.

3. Count vowels in a string.

4. Count consonants in a string.

5. Find frequency of each character in a string.

6. Remove all vowels from a string.

7. Convert a string to uppercase without using upper().

8. Convert a string to lowercase without using lower().

9. Capitalize the first letter of each word.

10. Find the longest word in a sentence.

11. Count words in a string.

12. Check if two strings are anagrams.

13. Remove duplicate characters from a string.

14. Find the first non-repeating character.

15. Replace a word in a string with another word.

16. Remove punctuation from a string.

17. Count how many times a substring appears in a string.

18. Check if a string contains only digits.

19. Check if a string contains only alphabets.

20. Replace spaces with hyphens in a string.

21. Remove leading and trailing spaces.

22. Check if one string is a rotation of another.

23. Toggle the case of each character.

24. Compress a string using character counts. (e.g. aabbb -> a2b3)

25. Split a string without using split().

26. Find all permutations of a string.

27. Find all substrings of a string.

28. Check if a string ends with a specific substring.

29. Find the longest palindrome in a string.

30. Reverse the words in a sentence.

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31. Convert string to title case without using title().

32. Remove duplicate words from a sentence.

33. Find ASCII value of each character.

34. Find characters that appear more than once.

35. Find common characters between two strings.

36. Find uncommon characters between two strings.

37. Remove characters from string 1 present in string 2.

38. Check if two strings are isomorphic.

39. Implement string matching (without using in).

40. Check if a string follows a pattern.

41. Count uppercase and lowercase letters.

42. Find the second most frequent character.

43. Count special characters in a string.

44. Find the most repeated word in a string.

45. Validate a password string based on given rules.

46. Reverse each word in a string.

47. Count pairs of characters having a specific difference.

48. Decode a run-length encoded string.

49. Check for balanced brackets in a string.

50. Extract email from a string.

Array Questions (50)

1. Find the largest element in an array.

2. Find the smallest element in an array.

3. Reverse an array.

4. Remove duplicates from an array.

5. Find the second largest element.

6. Sort an array.

7. Search for an element in an array.

8. Find the frequency of each element.

9. Count even and odd numbers.

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10. Separate even and odd numbers into two lists.

11. Rotate the array by one position.

12. Rotate the array by k positions.

13. Sum of all elements in an array.

14. Find the average of array elements.

15. Find all pairs with a given sum.

16. Find the maximum product of two numbers.

17. Merge two sorted arrays.

18. Find union and intersection of two arrays.

19. Remove a specific element.

20. Insert an element at a specific position.

21. Split the array into two halves.

22. Check if an array is sorted.

23. Count positive, negative, and zero elements.

24. Find the difference between max and min.

25. Move all zeroes to the end.

26. Find duplicates in the array.

27. Find missing number in a range.

28. Find repeating elements.

29. Replace all occurrences of a number with another.

30. Find common elements in three arrays.

31. Left rotate array by 1.

32. Right rotate array by 1.

33. Check if two arrays are equal.

34. Find maximum sum of a subarray (Kadane's Algorithm).

35. Find the equilibrium index.

36. Check if subarray with sum zero exists.

37. Replace each element with the next greatest element.

38. Rearrange array in alternating positive & negative items.

39. Find leader elements in array.

40. Convert array to a set and back.

41. Flatten a 2D array.

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42. Reverse elements in groups of k.

43. Count occurrences of a number.

44. Find the longest increasing subsequence.

45. Rearrange array so that even index has even number.

46. Find peak element in array.

47. Remove n smallest elements.

48. Find index of first repeating element.

49. Find pairs whose sum is divisible by k.

50. Find minimum difference between two elements.