Java and Geeks for Geeks programming questions

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Interview question:
How many parameters can a method have?

254(Non static method) and 255(static method)

Interview Question: Print 1 to 100 Without Using for/while/do-while Loop in Code
Solution 1)using recursive 2 using javastream

Print 1to 100 without numbers
String s="aaaaaaaaaa";
            int zero=s.length()-s.length();
            for(int i=zero;i<(s.length()*s.length());i++){
            System.out.println(i);
            }

 Binary search

Time complexity is   log n

Full array =N ,ie N/2^0 (2 power 0)
Half array =N/2   ie N/2^1
Another half array=N/4   ie N/2^2
 Kth half=N/2^K   worst case it becomes 1 (final comparision)

Equating
1=N/2^k

2^k=N taking log on both sides   log(2^k) =log(N) ----> klog2=logN   ---->K=logN/Log2 ---->logNbase2

Why mid logic is start+(end-start)/2 instead of (start+end)/2 in binary search

Because when the number is large start+end will result in a number that exceeds integer range. Hence this formula is used.
On simplifying it gives the same ie (2start+end-start)/2

Order agnostic binary search ,ie which type of sorting order is not known,ie ASC or DEC. In that case compare first and last element of array and perform binary search accordingly

Iterate a map using https://www.geeksforgeeks.org/iterate-map-java/

Programming questions:

1)Peak element in an array :https://www.geeksforgeeks.org/find-a-peak-in-a-given-array/
2)Minimum and max element in ana array https://www.geeksforgeeks.org/program-find-minimum-maximum-element-array/
3)Reverse an array https://www.geeksforgeeks.org/write-a-program-to-reverse-an-array-or-string/
4)Sorting Array https://www.geeksforgeeks.org/bubble-sort/   https://www.geeksforgeeks.org/selection-sort/
5)K smallest element in an array: https://www.geeksforgeeks.org/k-largestor-smallest-elements-in-an-array/
6)Merge two unsorted arrays in sorted order https://www.geeksforgeeks.org/merging-two-unsorted-arrays-sorted-order/
7)Calculate sum of numbers present in a string https://www.geeksforgeeks.org/calculate-sum-of-all-numbers-present-in-a-string/
8)Frequency of array elements: https://www.geeksforgeeks.org/counting-frequencies-of-array-elements/
9)Frequency of substring in a string https://www.geeksforgeeks.org/frequency-substring-string/
10)Occurrences of a word in a string https://www.geeksforgeeks.org/count-occurrences-of-a-word-in-string/
11)Sort Array based on 0's 1's 2'nd https://www.geeksforgeeks.org/sort-an-array-of-0s-1s-and-2s/ (See second easier solution)
12)SubArray with given sum https://www.geeksforgeeks.org/find-subarray-with-given-sum-in-array-of-integers/
13)Move negative and non negative integers to one side https://www.geeksforgeeks.org/move-negative-numbers-beginning-positive-end-constant-extra-space/
14)Reverse words in a given string https://www.geeksforgeeks.org/reverse-words-in-a-given-string/
15)Longest common prefix
      Using sorting https://www.geeksforgeeks.org/longest-common-prefix-using-sorting/#:~:text=The%20longest%20common%20prefix%20for,not%20share%20any%20starting%20characters.
      Using word by word mathcing https://www.geeksforgeeks.org/longest-common-prefix-using-word-by-word-matching/
      Using characterby character matching https://www.geeksforgeeks.org/longest-common-prefix-using-character-by-character-matching/

16)closest string see efficent solution https://www.geeksforgeeks.org/minimum-distance-between-words-of-a-string/
17)String encryption https://www.geeksforgeeks.org/encrypt-the-string-2/ (Refer link for decimal to hex conversion)
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