

- 1) [Java Program to copy all elements of one array into another array](#)
- 2) [Java Program to find the frequency of each element in the array](#)
- 3) [Java Program to left rotate the elements of an array](#)
- 4) [Java Program to print the duplicate elements of an array](#)
- 5) [Java Program to print the elements of an array](#)
- 6) [Java Program to print the elements of an array in reverse order](#)
- 7) [Java Program to print the elements of an array present on even position](#)
- 8) [Java Program to print the elements of an array present on odd position](#)
- 9) [Java Program to print the largest element in an array](#)
- 10) [Java Program to print the smallest element in an array](#)
- 11) [Java Program to print the number of elements present in an array](#)
- 12) [Java Program to print the sum of all the items of the array](#)
- 13) [Java Program to right rotate the elements of an array](#)
- 14) [Java Program to sort the elements of an array in ascending order](#)
- 15) [Java Program to sort the elements of an array in descending order](#)
- 16) [Java Program to Find 3rd Largest Number in an array](#)
- 17) [Java Program to Find 2nd Largest Number in an array](#)
- 18) [Java Program to Find Largest Number in an array](#)
- 19) [Java to Program Find 2nd Smallest Number in an array](#)
- 20) [Java Program to Find Smallest Number in an array](#)
- 21) [Java Program to Remove Duplicate Element in an array](#)
- 22) [Java Program to Print Odd and Even Numbers from an array](#)
- 23) [How to Sort an Array in Java](#)
- 1) [Java Matrix Programs](#)

- 2) Java Program to Add Two Matrices
- 3) Java Program to Multiply Two Matrices
- 4) Java Program to subtract the two matrices
- 5) Java Program to determine whether two matrices are equal
- 6) Java Program to display the lower triangular matrix
- 7) Java Program to display the upper triangular matrix
- 8) Java Program to find the frequency of odd & even numbers in the given matrix
- 9) Java Program to find the product of two matrices
- 10) Java Program to find the sum of each row and each column of a matrix
- 11) Java Program to find the transpose of a given matrix
- 12) Java Program to determine whether a given matrix is an identity matrix
- 13) Java Program to determine whether a given matrix is a sparse matrix
- 14) Java Program to Transpose matrix

### **1. Write a program to Sort Numeric Array In Ascending Order**

#### ***Sample Output***

Array = {23, 5, 67, 20, 3, 30, 79, 3, 70, 2}

Ascending Order = {2, 3, 3, 5, 20, 23, 30, 67, 70, 79}

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### **2. Write a program to Sort Numeric Array In Descending Order**

#### ***Sample Output***

Array = {23, 5, 67, 20, 3, 30, 79, 3, 70, 2}

Descending Order = {79, 70, 67, 30, 23, 20, 5, 3, 3, 2}

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### **3. Write a program to print sum values of an array**

#### ***Sample Output***

Array = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

Sum Values of Array = 55

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### **4. Write a program to calculate the average value of array elements**

#### ***Sample Output***

Array = {1, 2, 3, 4, 5}

Sum of Array Value : 15

Average of Array Value : 3.0

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### **5. Write a program to store elements in an array and print it**

#### ***Sample Output***

Array Size = 5

Element of a[0] = 5

Element of a[1] = 11

Element of a[2] = 22

Element of a[3] = 33

Element of a[4] = 44

Display Array Elements

5

11

22

33  
44

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**6. Write a program in to array size to be user input print it**

*Sample Output*

Enter the Array Limit = 4  
Element of a[0] = 10  
Element of a[1] = 20  
Element of a[2] = 30  
Element of a[3] = 40

Display Array Elements  
10  
20  
30  
40

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**7. Write a program in to find the sum of all elements of the array**

*Sample Output*

Array = { 10, 20, 30, 40, 50, 60}  
Sum of Array Elements = 210

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**8. Write a program in to read n number of values in an array and display it in reverse order**

*Sample Output*

Enter the Array Size = 5  
Element of a[0] = 1  
Element of a[1] = 2  
Element of a[2] = 3  
Element of a[3] = 4  
Element of a[4] = 5

Display Reverse Order  
5  
4  
3  
2  
1

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**9. Write a program to array elements to print cubic values**

***Sample Output***

Array = { 1, 2, 3, 4, 5 }

Cubic Array Elements = 1 8 27 64 125

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**10. Write a program to find the maximum and minimum element in an array**

***Sample Output***

Array = { 23, 4, 32, 5, 75 }

Maximum Element of Array = 75

Minimum Element of Array = 4

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**11. Write a program to array elements print all Odd number**

***Sample Output***

Array = { 23, 45, 67, 34, 78 }

Odd Array Elements = 23 45 67

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**12. Write a program to array elements print all Even number**

***Sample Output***

Array = { 23, 45, 89, 34, 12 }

Even Array Elements = 34 12

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**13. Write a program to array elements to print sum of Odd Numbers**

***Sample Output***

Array = { 12, 34, 59, 45, 22 }

Sum of Odd Array Elements = 104

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**14. Write a program to array elements to print sum of Even Numbers**

***Sample Output***

Array = { 56, 78, 45, 79, 34 }

Sum of Even Array Elements = 168

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**15. Write a program to array elements to print sum of Cubic Values**

*Sample Output*

Array = {1, 2, 3, 4, 5}

Sum of Cubic Array Elements = 225

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**16. Write a program in to copy the elements of one array into another array**

*Sample Output*

Array = {1, 2, 3, 4, 5}

Copy Array Elements one to Another Array = {1, 2, 3, 4, 5}

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**17. Write a program to merge two arrays elements to store third array**

*Sample Output*

First Array = {1, 2, 3, 4, 5}

First Array = {6, 7, 8, 9, 10}

Merge two Array Elements = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

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**18. Write a program to array elements print all Positive number**

*Sample Output*

Array = {67, -4, 3, -5, 44}

Positive Array Elements = {67, 3, 44}

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**19. Write a program to array elements print all Negative number**

*Sample Output*

Array = {-45, 32, -7, 3, -6}

Negative Array Elements = {-45, -7, -6}

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**20. Write a program to array elements to print sum of Positive Numbers**

***Sample Output***

Array = { 1, -2, 3, 3, 4 }

Sum of Positive Array Elements = 7

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**21. Write a program to array elements to print sum of Negative Numbers**

***Sample Output***

Array = { 10, -23, 45, -10, 30 }

Sum of Negative Array Elements = -33

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**22. Write a program to search an element in an array**

***Sample Output***

Array = { 10, 20, 30, 40, 50 }

Search Array Elements = 30

Element is Found in the Position = 3

Element is Found in the Index = 2

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**23. Write a program to Delete Duplicate Elements from an Array**

***Sample Output***

Array = { 10, 10, 20, 20, 30 }

After Remove Duplicate Array Elements = { 10, 20, 30 }

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**24. Write a program to Print Unique Elements in Array**

***Sample Output***

Array = { 10, 20, 40, 20, 10 }

Display Array Unique Elements = { 10, 20, 40 }

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**25. Write a program to find the second smallest element in an array**

***Sample Output***

Array = { 10, 20, 5, 2, 30 }

Second Smallest Element = 5

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**26. Write a program that identifies the Even elements in two arrays and creates a third array with those elements**

*Sample Output*

First Array = {1, 2, 3, 4, 5}

Second Array = {6, 7, 8, 9, 10}

Even Element Store in Third Array = {2, 4, 6, 8, 10}

[View Solution](#)

**27. Write a program that identifies the Odd elements in two arrays and creates a third array with those elements**

*Sample Output*

First Array = {1, 2, 3, 4, 5}

Second Array = {6, 7, 8, 9, 10}

Odd Element Store in Third Array = {1, 3, 5, 7, 9}

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**28. Write a program to find the common elements between two arrays of integers**

*Sample Output*

First Array = {10, 20, 30, 40, 50}

Second Array = {10, 30, 60, 50, 70}

Common Array Elements = {10, 30, 50}

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**29. Write a program to find the second Largest element in an array**

*Sample Output*

Array = {10, 20, 30, 40, 50}

Second Largest Element = 40

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**30. Write a program to find a missing number in an array**

*Sample Output*

Array = {1, 2, 4, 5, 6, 7}



Missing Array Number = 3

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**31. Write a program to Sort an array in ascending order using quicksort**

*Sample Output*

Array = {2, 65, 23, 13, 18, 30, 46, 17, 52, 78}

Sorted Array in Ascending Order = 2 13 17 18 23 30 46 52 65 78

[View Solution](#)

**32. Write a program to Sort an array in descending order using bubble sort**

*Sample Output*

Array = {2, 65, 23, 13, 18, 30, 46, 17, 52, 78}

Sorted Array in Descending Order = 78 65 52 46 30 23 18 17 13 2

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**33. Write a program to Sort an array in ascending order using bubble sort**

*Sample Output*

Array = {2, 65, 23, 13, 18, 30, 46, 17, 52, 78}

Sorted Array in Ascending Order = 2 13 17 18 23 30 46 52 65 78

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**34. Write a program to Sort an array in descending order using selection sort**

*Sample Output*

Array = {2, 65, 23, 13, 18, 30, 46, 17, 52, 78}

Sorted Array in Descending Order = 78 65 52 46 30 23 18 17 13 2

[View Solution](#)

**35. Write a program to Sort an array in ascending order using selection sort**

*Sample Output*

Array = {2, 65, 23, 13, 18, 30, 46, 17, 52, 78}

Sorted Array in Ascending Order = 2 13 17 18 23 30 46 52 65 78

[View Solution](#)

**36. Write a program to Search an item in an array using binary search**

***Sample Output***

Array = { 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 }

Enter Item to Search = 60

Item Found at 5 Position

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**37. Write a program to Search an item into the array using linear search**

***Sample Output***

Array = { 10, 20, 30, 56, 84 }

Item to Search = 30

Item Found at Index = 2

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**38. Write a program to Find prime and non-prime numbers in the array**

***Sample Output***

Array = { 3, 12, 21, 11 }

3 - Prime

12 - Not Prime

21 - Not Prime

11 - Prime

[View Solution](#)

**39. Write a program to Move all zero at the end of the array**

***Sample Output***

Array = { 1,0,45,34,0,67,2,0,6,67,45,2,0,10 }

Array after Moving Zeros to End = 1 45 34 67 2 6 67 45 2 10 0 0 0 0

[View Solution](#)

**40. Write a program to Read and print a Two Dimensional array**

***Sample Output***

Rows = 2

Columns = 3

Enter Array Elements a[0][0] = 1

Enter Array Elements a[0][1] = 2

Enter Array Elements a[0][2] = 3

Enter Array Elements a[1][0] = 4

Enter Array Elements a[1][1] = 5

Enter Array Elements a[1][2] = 6

Display 2D Array Element

1 2 3

4 5 6

Take 10 integer inputs from user and store them in an array and print them on screen.

2.

Take 10 integer inputs from user and store them in an array. Again ask user to give a number. Now, tell user whether that number is present in array or not.

3.

Take 20 integer inputs from user and print the following:

number of positive numbers

number of negative numbers

number of odd numbers

number of even numbers

number of 0s.

4.

Take 10 integer inputs from user and store them in an array. Now, copy all the elements in another array but in reverse order.

5.

Write a program to find the sum and product of all elements of an array.

6.

Initialize and print all elements of a 2D array.

7.

Find largest and smallest elements of an array.

8.

Write a program to check if elements of an array are same or not it read from front or back. E.g.-

9.

Take an array of 10 elements. Split it into middle and store the elements in two different arrays. E.g.-  
INITIAL array :

58          24          13          15          63          9    8    81          1    78

After splitting :

58                    24                    13                    15                    63  
9                    8                    81                    1                    78

10.

Consider an integer array, the number of elements in which is determined by the user. The elements are also taken as input from the user. Write a program to find those pair of elements that has the maximum and minimum difference among all element pairs.



11.

If the input array is [10, 12, 20, 30, 25, 40, 32, 31, 35, 50, 60], your program should be able to find that the subarray lies between the indexes 3 and 8.



Write a Java program to sort a numeric array and a string array.

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2. Write a Java program to sum values of an array.

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3. Write a Java program to print the following grid.

Expected Output :

```
- - - - -  
- - - - -  
- - - - -  
- - - - -  
- - - - -  
- - - - -  
- - - - -  
- - - - -  
- - - - -  
- - - - -
```

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4. Write a Java program to calculate the average value of array elements.

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5. Write a Java program to test if an array contains a specific value.

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6. Write a Java program to find the index of an array element.

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7. Write a Java program to remove a specific element from an array.

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8. Write a Java program to copy an array by iterating the array.

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9. Write a Java program to insert an element (specific position) into an array.

[Click me to see the solution](#)

**10.** Write a Java program to find the maximum and minimum value of an array.

[Click me to see the solution](#)

**11.** Write a Java program to reverse an array of integer values.

[Click me to see the solution](#)

**12.** Write a Java program to find duplicate values in an array of integer values.

[Click me to see the solution](#)

**13.** Write a Java program to find duplicate values in an array of string values.

[Click me to see the solution](#)

**14.** Write a Java program to find common elements between two arrays (string values).

[Click me to see the solution](#)

**15.** Write a Java program to find common elements between two integer arrays.

[Click me to see the solution](#)

**16.** Write a Java program to remove duplicate elements from an array.

[Click me to see the solution](#)

**17.** Write a Java program to find the second largest element in an array.

[Click me to see the solution](#)

**18.** Write a Java program to find the second smallest element in an array.

[Click me to see the solution](#)

**19.** Write a Java program to add two matrices of the same size.

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**20.** Write a Java program to convert an array to an ArrayList.

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**21.** Write a Java program to convert an ArrayList to an array.

[Click me to see the solution](#)

**22.** Write a Java program to find all pairs of elements in an array whose sum is equal to a specified number.

[Click me to see the solution](#)

**23.** Write a Java program to test two arrays' equality.

[Click me to see the solution](#)

**24.** Write a Java program to find a missing number in an array.

[Click me to see the solution](#)

**25.** Write a Java program to find common elements in three sorted (in non-decreasing order) arrays.

[Click me to see the solution](#)

**26.** Write a Java program to move all 0's to the end of an array. Maintain the relative order of the other (non-zero) array elements.

[Click me to see the solution](#)

**27.** Write a Java program to find the number of even and odd integers in a given array of integers.

[Click me to see the solution](#)

**28.** Write a Java program to get the difference between the largest and smallest values in an array of integers. The array must have a length of at least 1.

[Click me to see the solution](#)

**29.** Write a Java program to compute the average value of an array of integers except the largest and smallest values.

[Click me to see the solution](#)



**30.** Write a Java program to check if an array of integers is without 0 and -1.

[Click me to see the solution](#)

**31.** Write a Java program to check if the sum of all the 10's in the array is exactly 30. Return false if the condition does not satisfy, otherwise true.

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**32.** Write a Java program to check if an array of integers contains two specified elements 65 and 77.

[Click me to see the solution](#)

**33.** Write a Java program to remove duplicate elements from a given array and return the updated array length.

Sample array: [20, 20, 30, 40, 50, 50, 50]

After removing the duplicate elements the program should return 4 as the new length of the array.

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**34.** Write a Java program to find the length of the longest consecutive elements sequence from an unsorted array of integers.

Sample array: [49, 1, 3, 200, 2, 4, 70, 5]

The longest consecutive elements sequence is [1, 2, 3, 4, 5], therefore the program will return its length 5.

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**35.** Write a Java program to find the sum of the two elements of a given array equal to a given integer.

Sample array: [1,2,4,5,6]

Target value: 6.

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**36.** Write a Java program to find all the distinct triplets such that the sum of all the three elements  $[x, y, z \ (x \leq y \leq z)]$  equal to a specified number.

Sample array: [1, -2, 0, 5, -1, -4]

Target value: 2.

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**37.** Write a Java program to create an array of its anti-diagonals from a given square matrix.

Example:

Input :

1 2

3 4

Output:

[

[1],

[2, 3],

[4]

]

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**38.** Write a Java program to get the majority element from an array of integers containing duplicates.

Majority element: A majority element is an element that appears more than  $n/2$  times where  $n$  is the array size.

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**39.** Write a Java program to print all the LEADERS in the array.

Note: An element is leader if it is greater than all the elements to its right side.

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**40.** Write a Java program to find the two elements in a given array of positive and negative numbers such that their sum is close to zero.

[Click me to see the solution](#)

**41.** Write a Java program to find the smallest and second smallest elements of a given array.

[Click me to see the solution](#)

**42.** Write a Java program to separate 0s and 1s in an array of 0s and 1s into left and right sides.

[Click me to see the solution](#)

**43.** Write a Java program to find all combinations of four elements of an array whose sum is equal to a given value.

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**44.** Write a Java program to count the number of possible triangles from a given unsorted array of positive integers.

Note: The triangle inequality states that the sum of the lengths of any two sides of a triangle must be greater than or equal to the length of the third side.

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**45.** Write a Java program to cyclically rotate a given array clockwise by one.

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**46.** Write a Java program to check whether there is a pair with a specified sum in a given sorted and rotated array.

[Click me to see the solution](#)

**47.** Write a Java program to find the rotation count in a given rotated sorted array of integers.

[Click me to see the solution](#)

**48.** Write a Java program to arrange the elements of an array of integers so that all negative integers appear before all positive integers.

[Click me to see the solution](#)

**49.** Write a Java program to arrange the elements of an array of integers so that all positive integers appear before all negative integers.

[Click me to see the solution](#)

**50.** Write a Java program to sort an array of positive integers from an array. In the sorted array the value of the first element should be maximum, the second value should be a minimum, third should be the second maximum, the fourth should be the second minimum and so on.

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**51.** Write a Java program that separates 0s on the left hand side and 1s on the right hand side from a random array of 0s and 1.

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**52.** Write a Java program to separate even and odd numbers from a given array of integers. Put all even numbers first, and then odd numbers.

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**53.** Write a Java program to replace every element with the next greatest element (from the right side) in a given array of integers.  
There is no element next to the last element, therefore replace it with -1.

[Click me to see the solution](#)

**54.** Write a Java program to check if a given array contains a subarray with 0 sum.

Example:

Input :

nums1= { 1, 2, -2, 3, 4, 5, 6 }

nums2 = { 1, 2, 3, 4, 5, 6 }

nums3 = { 1, 2, -3, 4, 5, 6 }

Output:

Does the said array contain a subarray with 0 sum: true

Does the said array contain a subarray with 0 sum: false

Does the said array contain a subarray with 0 sum: true

[Click me to see the solution](#)

**55.** Write a Java program to print all sub-arrays with 0 sum present in a given array of integers.

Example:

Input :

nums1 = { 1, 3, -7, 3, 2, 3, 1, -3, -2, -2 }

nums2 = { 1, 2, -3, 4, 5, 6 }

nums3= { 1, 2, -2, 3, 4, 5, 6 }

Output:

Sub-arrays with 0 sum : [1, 3, -7, 3]

Sub-arrays with 0 sum : [3, -7, 3, 2, 3, 1, -3, -2]

Sub-arrays with 0 sum : [1, 2, -3]

Sub-arrays with 0 sum : [2, -2]

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**56.** Write a Java program to sort a binary array in linear time.

From Wikipedia,

Linear time: An algorithm is said to take linear time, or  $O(n)$  time, if its time complexity is  $O(n)$ . Informally, this means that the running time increases at most linearly with the size of the input. More precisely, this means that there is a constant  $c$  such that the running time is at most  $cn$  for every input of size  $n$ . For example, a procedure that adds up all elements of a list requires time proportional to the length of the list, if the adding time is constant, or, at least, bounded by a constant.

Linear time is the best possible time complexity in situations where the algorithm has to sequentially read its entire input. Therefore, much research has been invested into discovering algorithms exhibiting linear time or, at least, nearly linear time. This research includes both software and hardware methods. There are several hardware technologies which exploit parallelism to provide this. An example is content-addressable memory. This concept of linear time is used in string matching algorithms such as the Boyer–Moore algorithm and Ukkonen's algorithm.

Example:

Input :

`b_nums[] = { 0, 1, 1, 0, 1, 1, 0, 1, 0, 0 }`

Output:

After sorting: [0, 0, 0, 0, 0, 1, 1, 1, 1, 1]

[Click me to see the solution](#)

**57.** Write a Java program to check if a sub-array is formed by consecutive integers from a given array of integers.

Example:

Input :

`nums = { 2, 5, 0, 2, 1, 4, 3, 6, 1, 0 }`

Output:

The largest sub-array is [1, 7]  
Elements of the sub-array: 5 0 2 1 4 3 6

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**58.** Given two sorted arrays A and B of size p and q, write a Java program to merge elements of A with B by maintaining the sorted order i.e. fill A with first p smallest elements and fill B with remaining elements.

Example:

Input :

int[] A = { 1, 5, 6, 7, 8, 10 }

int[] B = { 2, 4, 9 }

Output:

Sorted Arrays:

A: [1, 2, 4, 5, 6, 7]

B: [8, 9, 10]

[Click me to see the solution](#)

**59.** Write a Java program to find the maximum product of two integers in a given array of integers.

Example:

Input :

nums = { 2, 3, 5, 7, -7, 5, 8, -5 }

Output:

Pair is (7, 8), Maximum Product: 56

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**60.** Write a Java program to shuffle a given array of integers.

Example:

Input :

nums = { 1, 2, 3, 4, 5, 6 }

Output:

Shuffle Array: [4, 2, 6, 5, 1, 3]

[Click me to see the solution](#)

**61.** Write a Java program to rearrange a given array of unique elements such that every second element of the array is greater than its left and right elements.

Example:

Input :

nums= { 1, 2, 4, 9, 5, 3, 8, 7, 10, 12, 14 }

Output:

Array with every second element is greater than its left and right elements:

[1, 4, 2, 9, 3, 8, 5, 10, 7, 14, 12]

[Click me to see the solution](#)

**62.** Write a Java program to find equilibrium indices in a given array of integers.

Example:

Input :

nums = {-7, 1, 5, 2, -4, 3, 0}

Output:

Equilibrium indices found at : 3

Equilibrium indices found at : 6

[Click me to see the solution](#)

**63.** Write a Java program to replace each element of the array with the product of every other element in a given array of integers.

Example:

Input :

nums1 = { 1, 2, 3, 4, 5, 6, 7}

nums2 = {0, 1, 2, 3, 4, 5, 6, 7}

Output:

Array with product of every other element:

[5040, 2520, 1680, 1260, 1008, 840, 720]

Array with product of every other element:

[5040, 0, 0, 0, 0, 0, 0]

[Click me to see the solution](#)

**64.** Write a Java program to find the Longest Bitonic Subarray in a given array.

A bitonic subarray is a subarray of a given array where elements are first sorted in increasing order, then in decreasing order. A strictly increasing or strictly decreasing subarray is also accepted as bitonic subarray.

Example:

Input :

nums = { 4, 5, 9, 5, 6, 10, 11, 9, 6, 4, 5 }

Output:

The longest bitonic subarray is [3,9]

Elements of the said sub-array: 5 6 10 11 9 6 4

The length of longest bitonic subarray is 7

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**65.** Write a Java program to find the maximum difference between two elements in a given array of integers such that the smaller element appears before the larger element.

Example:

Input :

nums = { 2, 3, 1, 7, 9, 5, 11, 3, 5 }

Output:

The maximum difference between two elements of the said array elements  
10

[Click me to see the solution](#)

**66.** Write a Java program to find a contiguous subarray within a given array of integers with the largest sum.

In computer science, the maximum sum subarray problem is the task of finding a contiguous subarray with the largest sum, within a given one-dimensional array  $A[1\dots n]$  of numbers. Formally, the task is to find indices and with, such that the sum is as large as possible.

Example:

Input :

int[] A = {1, 2, -3, -4, 0, 6, 7, 8, 9}



Output:

The largest sum of contiguous sub-array: 30

[Click me to see the solution](#)

**67.** Write a Java program to find the subarray with the largest sum in a given circular array of integers.

Example:

Input :

nums1 = { 2, 1, -5, 4, -3, 1, -3, 4, -1 }

nums2 = { 1, -2, 3, 0, 7, 8, 1, 2, -3 }

Output:

The sum of subarray with the largest sum is 6

The sum of subarray with the largest sum is 21

[Click me to see the solution](#)

**68.** Write a Java program to create all possible permutations of a given array of distinct integers.

Example:

Input :

nums1 = {1, 2, 3, 4}

nums2 = {1, 2, 3}

Output:

Possible permutations of the said array:

[1, 2, 3, 4]

[1, 2, 4, 3]

....

[4, 1, 3, 2]

[4, 1, 2, 3]

Possible permutations of the said array:

[1, 2, 3]

[1, 3, 2]

...

[3, 2, 1]

[3, 1, 2]

[Click me to see the solution](#)

**69.** Write a Java program to find the minimum subarray sum of specified size in a given array of integers.

Example:

Input :

nums = { 1, 2, 3, 4, 5, 6, 7, 8, 9,10}

Output:

Sub-array size: 4

Sub-array from 0 to 3 and sum is: 10

[Click me to see the solution](#)

**70.** Write a Java program to find the smallest length of a contiguous subarray of which the sum is greater than or equal to a specified value. Return 0 instead.

Example:

Input :

nums = {1, 2, 3, 4, 6}

Output:

Minimum length of a contiguous subarray of which the sum is 8, 2

[Click me to see the solution](#)

**71.** Write a Java program to find the largest number from a given list of non-negative integers.

Example:

Input :

nums = {1, 2, 3, 0, 4, 6}

Output:

Largest number using the said array numbers: 643210

[Click me to see the solution](#)

**72.** Write a Java program to find and print one continuous subarray (from a given array of integers) that if you only sort the said subarray in ascending order then the entire array will be sorted in ascending order.

Example:

Input :

nums1 = {1, 2, 3, 0, 4, 6}

nums2 = { 1, 3, 2, 7, 5, 6, 4, 8}

Output:

Continuous subarray:

1 2 3 0

Continuous subarray:

3 2 7 5 6 4

[Click me to see the solution](#)

**73.** Write a Java program to sort a given array of distinct integers where all its numbers are sorted except two numbers.

Example:

Input :

nums1 = { 3, 5, 6, 9, 8, 7 }

nums2 = { 5, 0, 1, 2, 3, 4, -2 }

Output:

After sorting new array becomes: [3, 5, 6, 7, 8, 9]

After sorting new array becomes: [-2, 0, 1, 2, 3, 4, 5]

[Click me to see the solution](#)

**74.** Write a Java program to find all triplets equal to a given sum in an unsorted array of integers.

Example:

Input :

nums = { 1, 6, 3, 0, 8, 4, 1, 7 }

Output:

Triplets of sum 7

(0 1 6)

(0 3 4)

[Click me to see the solution](#)

**75.** Write a Java program to calculate the largest gap between sorted elements of an array of integers.

Example:

Original array: [23, -2, 45, 38, 12, 4, 6]

Largest gap between sorted elements of the said array: 15

[Click me to see the solution](#)

**76.** Write a Java program to determine whether numbers in an array can be rearranged so that each number appears exactly once in a consecutive list of numbers. Return true otherwise false.

Example:

Original array: [1, 2, 5, 0, 4, 3, 6]

Check consecutive numbers in the said array!true

[Click me to see the solution](#)

**77.** Write a Java program that checks whether an array of integers alternates between positive and negative values.

Example:

Original array: [1, -2, 5, -4, 3, -6]

Check the said array of integers alternates between positive and negative values!true

[Click me to see the solution](#)

**78.** Write a Java program that checks whether an array is negative dominant or not. If the array is negative dominant return true otherwise false.

Example:

Original array of numbers:

[1, -2, -5, -4, 3, -6]

Check Negative Dominance in the said array!true

[Click me to see the solution](#)

**79.** Write a Java program that returns the missing letter from an array of increasing letters (upper or lower). Assume there will always be one omission from the array.

Example:

Original array of elements:

[p, r, s, t]

Missing letter in the said array: q

**1. Write a Java program to count the number of days between two given years**

[View Solution](#)

**2. Write a Java program to print LocalDate yyyy-MM-dd**

[View Solution](#)

**3. Write a Java program to print LocalTime HH:mm:ss**

[View Solution](#)

**4. Write a Java program to print LocalTime and LocalDate yyyy-MM-dd HH:mm:ss**

[View Solution](#)

**5. Write a Java program to print ZonedDateTime E MMM yyyy HH:mm:ss.SSSZ**

[View Solution](#)

**6. Write a Java program to print OffsetTime HH:mm:ss,Z**

[View Solution](#)

**7. Write a Java program to display combine local date and time in a single object**

[View Solution](#)

**8. Write a Java program to display current date without time and current time without date**

[View Solution](#)

**9. Write a Java program to calculate the difference between two dates in days**

[View Solution](#)

**10. Write a Java program to get seconds since 1970**

[View Solution](#)

**11. Write a Java program to convert a unix timestamp to date**

[View Solution](#)

**12. Write a Java program to extract date, time from the date string**

[View Solution](#)

**13. Write a Java program to get today's date at midnight time**

[View Solution](#)

**14. Write a Java program to get the next and previous Friday**

[View Solution](#)

**15. Write a Java program to calculate your age**

[View Solution](#)

**16. Write a Java program to compute the difference between two datetime (Hours, Minutes, Milliseconds, Seconds and Nanoseconds)**

[View Solution](#)

**17. Write a Java program to compute the difference between two dates (Years, Months, Days)**

[View Solution](#)

**18. Write a Java program to convert a string to date**

[View Solution](#)

**19. Write a Java program to display the date time information before some hours and minutes from current date time**

[View Solution](#)

**20. Write a Java program to get the information of a given time**

[View Solution](#)

**21. Write a Java program to get the information of current/given month**

- Current Month of Number : 6
- Number of Days in Month : 30
- Maximum Number of Days in Month : 30
- First Month of the Quarter : APRIL

[View Solution](#)

**22. Write a Java program to get the information of current/given year**

- Current Year : 2001
- Is Current Year or leap Year ? false
- Number of Days in the year : 365 days

[View Solution](#)

**23. Write a Java program to display the dates in the specified formats**

[View Solution](#)

**24. Write a Java program to get the months remaining in the year**

[View Solution](#)

**25. Write a Java program to get the dates 10 days before and after today**

[View Solution](#)

**26. Write a Java program to get the current time in all the available time zones**

[View Solution](#)

**27. Write a Java program to get current timestamp**

[View Solution](#)

**28. Write a Java program to get year and months between two dates**

[View Solution](#)

**29. Write a Java program to get a date before and after 1 year compares to the current date**

[View Solution](#)

**30. Write a Java program to get a date after 2 weeks**

[View Solution](#)

**31. Write a Java program to add some hours to the current time**

[View Solution](#)

**32. Write a Java program to get the current local time**

[View Solution](#)

**33. Write a Java program to get a day of the week of a specific date**

[View Solution](#)

**34. Write a Java program to get localized day in week name**

[View Solution](#)

**35. Write a Java program to get Current Locale day in week name**

[View Solution](#)

**36. Write a Java program to get the number of days of a month**

[View Solution](#)

**37. Write a Java program to get the name of the first and last day of a month**

[View Solution](#)

**38. Write a Java program to calculate the first and last day of each week**

[View Solution](#)

**39. Write a Java program to get the last date of the month**

[View Solution](#)

**40. Write a Java program to get the last day of the current month**

[View Solution](#)

**41. Write a Java program to get current full date and time**

[View Solution](#)

**42. Write a Java program to get the current time in New York**



[View Solution](#)

**43. Write a Java program to get the minimum value of year, month, week, date from the current date of a default calendar**

[View Solution](#)

**44. Write a Java program to get the maximum value of the year, month, week, date from the current date of a default calendar**

[View Solution](#)

**45. Write a Java program to get and display information (year, month, day, hour, minute) of a default calendar**

[View Solution](#)

**46. Write a Java program to create a Date object using the Calendar class**

[View Solution](#)

**47. Write a Java Program to Generate Month Calendar of Any Year**

[View Solution](#)

**48. Write a Java Program to Generate One Year Calendar**

[View Solution](#)

**49. Write a Java Program to Decrement a Month using the Calendar Class**

[View Solution](#)

**50. Write a Java Program to Increment a Month using the Calendar Class**

[View Solution](#)

**51. Write a Java Program to Get individual components of the current time**

[View Solution](#)

**52. Write a Java Program to Compare time using equals() method**

[View Solution](#)

**53. Write a Java Program to Compare time using compareTo() method**

[View Solution](#)

**54. Write a Java Program to Add years to the current date**

[View Solution](#)

**55. Write a Java Program to Add months to the current date**

[View Solution](#)

**56. Write a Java Program to Subtract days from the current date**

[View Solution](#)

**57. Write a Java Program to Add days to the current date**

[View Solution](#)

**58. Write a Java Program to Get the current day number of a month using the get() method of Calendar class**

[View Solution](#)

**59. Write a Java Program to Get the current year using the get() method of Calendar class**

[View Solution](#)

**60. Write a Java Program to Print the current date-time using Calendar class**

[View Solution](#)

**61. Write a Java Program to Create a LocalDate object from the object of Date class**

[View Solution](#)

**62. Write a Java Program to Parse individual components of date from the current date**

[View Solution](#)

**63. Write a Java Program to Parse individual components of date from a string**

[View Solution](#)

**64. Write a Java Program to Compare dates using the Date.equals() method**

[View Solution](#)

**65. Write a Java Program to Compare dates using Date.compareTo() method**

[View Solution](#)

**66. Write a Java Program to Get a date from milliseconds using the Date.setTime() method**

[View Solution](#)

**67. Write a Java Program to Get a date from milliseconds using Date() constructor**

[View Solution](#)

**68. Write a Java Program to Get milliseconds from the specified date**

[View Solution](#)

**69. Write a Java Program to Convert 'java.util.Date' into 'java.sql.Date'**

[View Solution](#)

**70. Write a Java Program to Get current system date and time in Java**

[View Solution](#)

**71. Write a Java Program to get elapsed time in seconds and milliseconds**

[View Solution](#)

- String
  - Question 1 : How to reverse a String in java? Can you write a program without using any java inbuilt methods?
  - Question 2 : Write a java program to check if two Strings are anagram in java?
  - Question 3 : Write a program to check if String has all unique characters in java?
  - Question 4 : How to check if one String is rotation of another String in java?
  - Question 5 : How to find duplicate characters in String in java?
  - Question 6 : Find first non repeated character in String in java?
  - Question 7 : Find all substrings of String in java?
  - Question 8 : Find length of String without using any inbuilt method in java?
  - Question 9 : Write a program to print all permutations of String in java?
- Array
  - Question 10 : Write java Program to Find Smallest and Largest Element in an Array.
  - Question 11 : Find missing number in the array.
  - Question 12 : Search an element in rotated and sorted array.
  - Question 13 : Find minimum element in a sorted and rotated array.
  - Question 14: Find second largest number in an array
  - Question 15 : Find the number occurring odd number of times in an array
  - Question 16 : Find minimum number of platforms required for railway station
  - Question 17 : Find a Pair Whose Sum is Closest to zero in Array
  - Question 18 : Given a sorted array and a number x, find the pair in array whose sum is closest to x

- [Question 19 : Find all pairs of elements from an array whose sum is equal to given number](#)
- [Question 20: Given an array of 0's and 1's in random order, you need to separate 0's and 1's in an array.](#)
- [Question 21 : Separate odd and even numbers in an array](#)
- [Question 22 : Given an array containing zeroes, ones and twos only. Write a function to sort the given array in O\(n\) time complexity.](#)
- [Question 23 : Find local minima in array](#)
- [Question 24 : Sliding window maximum in java](#)
- [Question 25 : Count number of occurrences \(or frequency\) of each element in a sorted array](#)
- [Question 26 : Find subarrays with given sum in an array.](#)
- [Question 27 : Find peak element in the array.](#)
- [Question 28 : Find leaders in an array.](#)
- [Question 29 : Count 1's in sorted Binary Array.](#)
- [Question 30 : Find first repeating element in an array of integers.](#)
- [Question 31 : Check if Array Elements are Consecutive.](#)
- [Question 32 : Permutations of array in java.](#)
- [Question 33 : Rotate an array by K positions.](#)
- [Question 34 : Stock Buy Sell to Maximize Profit.](#)
- [Question 35 : Find maximum difference between two elements such that larger element appears after the smaller number.](#)
- [Question 36 : Search in a row wise and column wise sorted matrix.](#)
- [Question 37 : Largest sum contiguous subarray.](#)
- [Question 38 : Find the Contiguous Subarray with Sum to a Given Value in an array.](#)
- [Question 39 : Longest Common Prefix in an array of Strings in java.](#)
- [Question 40 : Find all subsets of set \(power set\) in java.](#)

- Stack
  - Question 41: Implement a stack using array.
  - Question 42: Implement a stack using Linked List.
  - Question 43: Implement a stack using two queues.
  - Question 44 : Sort an stack using another stack
- Queue
  - Question 45: Implement Queue using Array in java.
  - Question 46: Implement a stack using two queues .
- Linked List
  - Question 47 : Implement singly linked list in java.
  - Question 48: How to reverse linked list in java.
  - Question 49: How to find middle element of linked list.
  - Question 50 : How to find nth element from end of linked list .
  - Question 51 : How to detect a loop in linked list. If linked list has loop, find the start node for the loop.
  - Question 52: How to check if linked list is palindrome or not?
  - Question 53 : Find intersection of two linked lists?
  - Question 54 : How to reverse a linked list in pairs?
  - Question 55 : Implement Doubly linked list in java?
- Binary Tree
  - Question 56 : How can you traverse binary tree?
  - Question 57 : Write an algorithm to do level order traversal of binary tree?
  - Question 58 : Write an algorithm to do spiral order traversal of binary tree?
  - Question 59 : How can you print leaf nodes of binary tree?
  - Question 60 : How to count leaf nodes of binary tree.
  - Question 61 : How to print all paths from root to leaf in binary tree.
  - Question 62 : How to find level of node in binary tree
  - Question 63 : How to find maximum element in binary tree.

- [Question 64 : How to find lowest common ancestor\(LCA\) in binary tree.](#)
- [Question 65 : How to do boundary traversal of binary tree.](#)
- [Question 66 : How to print vertical sum of binary tree?](#)
- [Question 67 : Count subtrees with Sum equal to target in binary tree?](#)
- [Binary Search tree](#)
  - [Question 68 : What is binary search tree?](#)
  - [Question 69 : Can you write algorithm to insert a node in binary search tree.](#)
  - [Question 70 : Can you write algorithm to delete a node in binary search tree.](#)
  - [Question 71 : How can you find minimum and maximum elements in binary search tree?](#)
  - [Question 72 : How to find lowest common ancestor\(LCA\) in binary search tree.](#)
  - [Question 73 : Find inorder successor in a Binary search Tree](#)
  - [Question 74 : Convert sorted array to balanced BST](#)
  - [Question 75 : Convert sorted Linked List to balanced BST](#)
  - [Question 76 : Check if a binary tree is binary search tree or not in java](#)
- [Sorting](#)
  - [Question 77 : Write an algorithm to implement bubble sort?](#)
  - [Question 78 : Write an algorithm to implement insertion sort sort?](#)
  - [Question 79 : Write an algorithm to implement selection sort sort?](#)
  - [Question 80 : Can you write algorithm for merge sort and also do you know complexity of merge sort?](#)
  - [Question 81 : Do you know how to implement Heap sort?](#)
  - [Question 82 : Implement quick sort in java?](#)
  - [Question 83 : Implement shell sort in java?](#)
  - [Question 84 : Implement Counting sort in java?](#)

- [Question 85 : What is binary search? Can you write an algorithm to find an element in sorted array using binary search?](#)
- [Graph](#)
  - [Question 86 : Write algorithm to do depth first search in a graph.](#)
  - [Question 87 : Write algorithm to do breadth first search in a graph.](#)
  - [Question 88 : Explain Dijkstra algorithm from source to all other vertices.](#)
  - [Question 89 : Explain Bellman Ford algorithm to find shortest distance](#)
  - [Question 90 : Explain Kruskal's algorithm for finding minimum spanning tree](#)
- [Dynamic Programming](#)
  - [Question 91 : Given two String, find longest common substring.](#)
  - [Question 92 : Given two Strings A and B. Find the length of the Longest Common Subsequence \(LCS\) of the given Strings.](#)
  - [Question 93 : Given a matrix, we need to count all paths from top left to bottom right of MxN matrix. You can either move down or right.](#)
  - [Question 94 : Edit Distance Problem in java](#)
  - [Question 95: Coin change problem in java](#)
  - [Question 96 : Minimum number of jumps to reach last index](#)
- [Miscellaneous](#)
  - [Question 97 : What is an algorithm and how to calculate complexity of algorithms.](#)
  - [Question 98 : Implement trie data structure in java.](#)
  - [Question 99 : Count Factorial Trailing Zeroes in java.](#)
  - [Question 100 : Largest Rectangular Area in a Histogram.](#)
  - [Question 101 : Check for balanced parentheses in an expression in java.](#)
  - [Question 102 : What is Memoization.](#)





- 1) [Fibonacci Series in Java](#)
- 2) [Prime Number Program in Java](#)
- 3) [Palindrome Program in Java](#)
- 4) [Factorial Program in Java](#)
- 5) [Armstrong Number in Java](#)
- 6) [How to Generate Random Number in Java](#)
- 7) [How to Print Pattern in Java](#)
- 8) [How to Compare Two Objects in Java](#)
- 9) [How to Create Object in Java](#)
- 10) [How to Print ASCII Value in Java](#)

## Java Number Programs

- 1) [How to Reverse a Number in Java](#)
- 2) [Java Program to convert Number to Word](#)
- 3) [Automorphic Number Program in Java](#)
- 4) [Peterson Number in Java](#)
- 5) [Sunny Number in Java](#)
- 6) [Tech Number in Java](#)
- 7) [Fascinating Number in Java](#)
- 8) [Keith Number in Java](#)
- 9) [Neon Number in Java](#)
- 10) [Spy Number in Java](#)
- 11) [ATM program Java](#)
- 12) [Autobiographical Number in Java](#)

- 13) [Emirp Number in Java](#)
- 14) [Sphenic Number in Java](#)
- 15) [Buzz Number Java](#)
- 16) [Duck Number Java](#)
- 17) [Evil Number Java](#)
- 18) [ISBN Number Java](#)
- 19) [Krishnamurthy Number Java](#)
- 20) [Bouncy Number in Java](#)
- 21) [Mystery Number in Java](#)
- 22) [Smith Number in Java](#)
- 23) [Strontio Number in Java](#)
- 24) [Xylem and Phloem Number in Java](#)
- 25) [nth Prime Number Java](#)
- 26) [Java Program to Display Alternate Prime Numbers](#)
- 27) [Java Program to Find Square Root of a Number Without sqrt Method](#)
- 28) [Java Program to Swap Two Numbers Using Bitwise Operator](#)
- 29) [Java Program to Find GCD of Two Numbers](#)
- 30) [Java Program to Find Largest of Three Numbers](#)
- 31) [Java Program to Find Smallest of Three Numbers Using Ternary Operator](#)
- 32) [Java Program to Check if a Number is Positive or Negative](#)
- 33) [Java Program to Check if a Given Number is Perfect Square](#)
- 34) [Java Program to Display Even Numbers From 1 to 100](#)
- 35) [Java Program to Display Odd Numbers From 1 to 100](#)
- 36) [Java Program to Find Sum of Natural Numbers](#)

## Java Array Programs

- 1) Java Program to copy all elements of one array into another array
- 2) Java Program to find the frequency of each element in the array
- 3) Java Program to left rotate the elements of an array
- 4) Java Program to print the duplicate elements of an array
- 5) Java Program to print the elements of an array
- 6) Java Program to print the elements of an array in reverse order
- 7) Java Program to print the elements of an array present on even position
- 8) Java Program to print the elements of an array present on odd position
- 9) Java Program to print the largest element in an array
- 10) Java Program to print the smallest element in an array
- 11) Java Program to print the number of elements present in an array
- 12) Java Program to print the sum of all the items of the array
- 13) Java Program to right rotate the elements of an array
- 14) Java Program to sort the elements of an array in ascending order
- 15) Java Program to sort the elements of an array in descending order
- 16) Java Program to Find 3rd Largest Number in an array
- 17) Java Program to Find 2nd Largest Number in an array
- 18) Java Program to Find Largest Number in an array
- 19) Java to Program Find 2nd Smallest Number in an array
- 20) Java Program to Find Smallest Number in an array
- 21) Java Program to Remove Duplicate Element in an array
- 22) Java Program to Print Odd and Even Numbers from an array

## 23) How to Sort an Array in Java

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### Java Matrix Programs

- 1) Java Matrix Programs
  - 2) Java Program to Add Two Matrices
  - 3) Java Program to Multiply Two Matrices
  - 4) Java Program to subtract the two matrices
  - 5) Java Program to determine whether two matrices are equal
  - 6) Java Program to display the lower triangular matrix
  - 7) Java Program to display the upper triangular matrix
  - 8) Java Program to find the frequency of odd & even numbers in the given matrix
  - 9) Java Program to find the product of two matrices
  - 10) Java Program to find the sum of each row and each column of a matrix
  - 11) Java Program to find the transpose of a given matrix
  - 12) Java Program to determine whether a given matrix is an identity matrix
  - 13) Java Program to determine whether a given matrix is a sparse matrix
  - 14) Java Program to Transpose matrix
- 

### Java String Programs

- 1) Java Program to count the total number of characters in a string
- 2) Java Program to count the total number of characters in a string 2
- 3) Java Program to count the total number of punctuation characters exists in a String

- 4) Java Program to count the total number of vowels and consonants in a string
- 5) Java Program to determine whether two strings are the anagram
- 6) Java Program to divide a string in 'N' equal parts.
- 7) Java Program to find all subsets of a string
- 8) Java Program to find the longest repeating sequence in a string
- 9) Java Program to find all the permutations of a string
- 10) Java Program to remove all the white spaces from a string
- 11) Java Program to replace lower-case characters with upper-case and vice-versa
- 12) Java Program to replace the spaces of a string with a specific character
- 13) Java Program to determine whether a given string is palindrome
- 14) Java Program to determine whether one string is a rotation of another
- 15) Java Program to find maximum and minimum occurring character in a string
- 16) Java Program to find Reverse of the string
- 17) Java program to find the duplicate characters in a string
- 18) Java program to find the duplicate words in a string
- 19) Java Program to find the frequency of characters
- 20) Java Program to find the largest and smallest word in a string
- 21) Java Program to find the most repeated word in a text file
- 22) Java Program to find the number of the words in the given text file
- 23) Java Program to separate the Individual Characters from a String
- 24) Java Program to swap two string variables without using third or temp variable.
- 25) Java Program to print smallest and biggest possible palindrome word in a given string

- 26) [Reverse String in Java Word by Word](#)
  - 27) [Reserve String without reverse\(\) function](#)
- 

## Java Searching and Sorting Programs

- 1) [Linear Search in Java](#)
  - 2) [Binary Search in Java](#)
  - 3) [Bubble Sort in Java](#)
  - 4) [Selection Sort in Java](#)
  - 5) [Insertion Sort in Java](#)
- 

## Java Conversion Programs

- 1) [How to convert String to int in Java](#)
- 2) [How to convert int to String in Java](#)
- 3) [How to convert String to long in Java](#)
- 4) [How to convert long to String in Java](#)
- 5) [How to convert String to float in Java](#)
- 6) [How to convert float to String in Java](#)
- 7) [How to convert String to double in Java](#)
- 8) [How to convert double to String in Java](#)
- 9) [How to convert String to Date in Java](#)
- 10) [How to convert Date to String in Java](#)
- 11) [How to convert String to char in Java](#)
- 12) [How to convert char to String in Java](#)

- 13) [How to convert String to Object in Java](#)
  - 14) [How to convert Object to String in Java](#)
  - 15) [How to convert int to long in Java](#)
  - 16) [How to convert long to int in Java](#)
  - 17) [How to convert int to double in Java](#)
  - 18) [How to convert double to int in Java](#)
  - 19) [How to convert char to int in Java](#)
  - 20) [How to convert int to char in Java](#)
  - 21) [How to convert String to boolean in Java](#)
  - 22) [How to convert boolean to String in Java](#)
  - 23) [How to convert Date to Timestamp in Java](#)
  - 24) [How to convert Timestamp to Date in Java](#)
  - 25) [How to convert Binary to Decimal in Java](#)
  - 26) [How to convert Decimal to Binary in Java](#)
  - 27) [How to convert Hex to Decimal in Java](#)
  - 28) [How to convert Decimal to Hex in Java](#)
  - 29) [How to convert Octal to Decimal in Java](#)
  - 30) [How to convert Decimal to Octal in Java](#)
- 

## Java Pattern programs

- 1) [Java program to print the following spiral pattern on the console](#)
- 2) [Java program to print the following pattern](#)
- 3) [Java program to print the following pattern 2](#)



- 4) [Java program to print the following pattern 3](#)
- 5) [Java program to print the following pattern 4](#)
- 6) [Java program to print the following pattern 5](#)
- 7) [Java program to print the following pattern on the console](#)
- 8) [Java program to print the following pattern on the console 2](#)
- 9) [Java program to print the following pattern on the console 3](#)
- 10) [Java program to print the following pattern on the console 4](#)
- 11) [Java program to print the following pattern on the console 5](#)
- 12) [Java program to print the following pattern on the console 6](#)
- 13) [Java program to print the following pattern on the console 7](#)
- 14) [Java program to print the following pattern on the console 8](#)
- 15) [Java program to print the following pattern on the console 9](#)
- 16) [Java program to print the following pattern on the console 10](#)
- 17) [Java program to print the following pattern on the console 11](#)
- 18) [Java program to print the following pattern on the console 12](#)

# DSA

Easy	Ideal Time : 5-10 mins	
Medium	Ideal Time : 15-20 mins	5 Questions each Day
Hard	Ideal Time : 40-60 mins (based on Qs)   88 Qs	
Topics	Question (375)	Companies
Arrays	<a href="#">Maximum and Minimum Element in an Array</a>	ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMWare Google Adobe
Arrays	<a href="#">Reverse the Array</a>	Infosys Moonfrog Labs
Arrays	<a href="#">Maximum-Subarray</a>	Microsoft + Facebook Interview Qs
Arrays	<a href="#">Contains Duplicate</a>	Amazon Interview Qs
Arrays	<a href="#">Chocolate Distribution Problem</a>	Amazon Interview Qs
Arrays	<a href="#">Search in Rotated Sorted Array</a>	Microsoft Google Adobe Amazon D-E-Shaw Flipkart Hike Intuit MakeMyTrip Paytm
Arrays	<a href="#">Next Permutation</a>	Uber + Goldman Sachs + Adobe Interview Qs
Arrays	<a href="#">Best time to Buy and Sell Stock</a>	Amazon D-E-Shaw Directi Flipkart Goldman Sachs Intuit MakeMyTrip Microsoft Ola Cabs Oracle Paytm Pubmatic Quikr Salesforce Sapient Swiggy Walmart Media.net Google
Arrays	<a href="#">Repeat and Missing Number Array</a>	Amazon Interview Qs
Arrays	<a href="#">Kth-Largest Element in an Array</a>	Amazon Microsoft Walmart Adobe

Arrays	<a href="#">Trapping Rain Water</a>	Samsung Interview Qs
Arrays	<a href="#">Product of Array Except Self</a>	Microsoft + Facebook Interview Qs
Arrays	<a href="#">Maximum Product Subarray</a>	Amazon D-E-Shaw Microsoft Morgan Stanley OYO Rooms Google
Arrays	<a href="#">Find Minimum in Rotated Sorted Array</a>	Adobe Amazon Microsoft Morgan Stanley Samsung Snapdeal Times Internet
Arrays	<a href="#">Find Pair with Sum in Sorted &amp; Rotated Array</a>	Microsoft + Google + Apple Interview Qs
Arrays	<a href="#">3Sum</a>	Adobe Amazon Microsoft Morgan Stanley Samsung Snapdeal Times Internet
Arrays	<a href="#">Container With Most Water</a>	Flipkart + Dunzo Interview Qs
Arrays	<a href="#">Given Sum Pair</a>	Infosys + Amazon + Flipkart Interview Qs
Arrays	<a href="#">Kth - Smallest Element</a>	ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMWare Google Adobe
Arrays	<a href="#">Merge Overlapping Intervals</a>	Google Interview Qs
Arrays	<a href="#">Find Minimum Number of Merge Operations to Make an Array Palindrome</a>	Amazon
Arrays	<a href="#">Given an Array of Numbers Arrange the Numbers to Form the Biggest Number</a>	Barclays Interview Qs
Arrays	<a href="#">Space Optimization Using Bit Manipulations</a>	Amazon
Arrays	<a href="#">Subarray Sum Divisible K</a>	Snapdeal Microsoft
Arrays	<a href="#">Print all Possible Combinations of r Elements in a</a>	Amazon

	<a href="#">Given Array of Size n</a>	
<b>Arrays</b>	<a href="#">Mo's Algorithm</a>	Microsoft
<b>Strings</b>	<a href="#">Valid Palindrome</a>	Amazon Cisco D-E-Shaw Facebook FactSet Morgan Stanley Paytm Zoho
<b>Strings</b>	<a href="#">Valid Anagram</a>	Nagarro Media.net Directi Google Adobe Flipkart
<b>Strings</b>	<a href="#">Valid parentheses</a>	Google Interview Qs
<b>Strings</b>	<a href="#">Remove Consecutive Characters</a>	Samsung + Adobe
<b>Strings</b>	<a href="#">Longest Common Prefix</a>	Adobe + Grofers + Dunzo Interview Qs
<b>Strings</b>	<a href="#">Convert a Sentence into its Equivalent Mobile Numeric Keypad Sequence</a>	Adobe
<b>Strings</b>	<a href="#">Print all the Duplicates in the Input String</a>	Ola + Amdocs IQ
<b>Strings</b>	<a href="#">Longest Substring without Repeating Characters</a>	Morgan Stanley + Amazon IQ
<b>Strings</b>	<a href="#">Longest Repeating Character Replacement</a>	Amazon Google
<b>Strings</b>	<a href="#">Group Anagrams</a>	Samsung + Adobe + Amazon Interview Qs
<b>Strings</b>	<a href="#">Longest Palindromic Substring</a>	Microsoft + Google + Samsung + Visa IQ
<b>Strings</b>	<a href="#">Palindromic Substrings</a>	Microsoft IQ
<b>Strings</b>	<a href="#">Next Permutation</a>	Adobe + Goldman Sachs + Uber
<b>Strings</b>	<a href="#">Count Palindromic Subsequences</a>	Myntra Interview Qs

Strings	<a href="#">Smallest Window in a String Containing all the Characters of Another String</a>	Microsoft + Amazon IQ
Strings	<a href="#">Wildcard String Matching</a>	Microsoft + Amazon + Ola IQ
Strings	<a href="#">Longest Prefix Suffix</a>	Flipkart + Swiggy IQ
Strings	<a href="#">Rabin-Karp Algorithm for Pattern Searching</a>	Microsoft
Strings	<a href="#">Transform One String to Another using Minimum Number of Given Operation</a>	Directi
Strings	<a href="#">Minimum Window Substring</a>	Amazon Google MakeMyTrip Streamoid Technologies Microsoft Media.net Atlassian Flipkart
Strings	<a href="#">Boyer Moore Algorithm for Pattern Searching</a>	Amdocs
Strings	<a href="#">Word Wrap</a>	Microsoft
2D Arrays	<a href="#">Zigzag (or diagonal) Traversal of Matrix</a>	Amazon
2D Arrays	<a href="#">Set Matrix Zeroes</a>	Amazon Microsoft
2D Arrays	<a href="#">Spiral Matrix</a>	Flipkart + Apple + Societe Generale IQ
2D Arrays	<a href="#">Rotate Image</a>	Microsoft Paytm Samsung Adobe
2D Arrays	<a href="#">Word Search</a>	Google + Ola + Goldman Sachs IQ
2D Arrays	<a href="#">Find the Number of Islands   Set 1 (Using DFS)</a>	Microsoft + Uber + Apple + Amazon IQ

2D Arrays	<a href="#">Given a Matrix of 'O' and 'X', Replace 'O' with 'X' if Surrounded by 'X'</a>	Google
2D Arrays	<a href="#">Find a Common Element in all Rows of a Given Row-Wise Sorted Matrix</a>	MAQ Software Microsoft VMWare
2D Arrays	<a href="#">Create a Matrix with Alternating Rectangles of O and X</a>	MAQ VMWare
2D Arrays	<a href="#">Maximum Size Rectangle of all 1s</a>	Amazon Microsoft
Searching & Sorting	<a href="#">Permute Two Arrays such that Sum of Every Pair is Greater or Equal to K</a>	Samsung
Searching & Sorting	<a href="#">counting sort</a>	Samsung+ Morgan Stanley+ Snapdeal + EPAM Systems
Searching & Sorting	<a href="#">find common elements three sorted arrays</a>	MAQ Software Microsoft VMWare
Searching & Sorting	<a href="#">Searching in an array where adjacent differ by at most k</a>	TCS Amazon
Searching & Sorting	<a href="#">ceiling in a sorted array</a>	TCS
Searching & Sorting	<a href="#">Pair with given difference</a>	Amazon Visa
Searching & Sorting	<a href="#">majority element</a>	Amazon+ Google
Searching & Sorting	<a href="#">count triplets with sum smaller than a given value</a>	Amazon SAP Labs

Searching & Sorting	<a href="#">Maximum Sum Subsequence with no adjacent elements</a>	Amazon FactSet Oxigen Wallet OYO Rooms Paytm Walmart Yahoo Adobe Flipkart
Searching & Sorting	<a href="#">Merge Sorted Arrays using O(1) Space</a>	Amdocs Brocade Goldman Sachs Juniper Networks Linkedin Microsoft Quikr Snapdeal Synopsys Zoho Adobe
Searching & Sorting	<a href="#">Inversion of Array</a>	Adobe Amazon BankBazaar Flipkart Microsoft Myntra MakeMyTrip
Searching & Sorting	<a href="#">Find Duplicates in O(n) Time and O(1) Extra Space</a>	Amazon D-E-Shaw Flipkart Paytm Qualcomm Zoho
Searching & Sorting	<a href="#">Radix Sort</a>	Amazon+ Microsoft
Searching & Sorting	<a href="#">Product of Array except itself</a>	Accolite Amazon D-E-Shaw Intuit Morgan Stanley Opera Microsoft Flipkart
Searching & Sorting	<a href="#">Make all Array Elements Equal</a>	Amazon
Searching & Sorting	<a href="#">Check if Reversing a Sub Array Make the Array Sorted</a>	Amazon
Searching & Sorting	<a href="#">Find Four Elements that Sum to a Given Value</a>	Adobe Amazon Google Microsoft OYO Rooms
Searching & Sorting	<a href="#">Median of Two Sorted Array with Different Size</a>	Amazon Samsung Microsoft Google
Searching & Sorting	<a href="#">Median of Stream of Integers Running Integers</a>	Amazon + Google
Searching & Sorting	<a href="#">Print Subarrays with 0 Sum</a>	Paytm Adobe
Searching & Sorting	<a href="#">Aggressive Cows</a>	Adobe
Searching & Sorting	<a href="#">Allocate Minimum number of Pages</a>	Google Infosys Codenation Amazon Microsoft

Searching & Sorting	<a href="#">Minimum Swaps to Sort</a>	Amazon + Google
Backtracking	<a href="#">Set 2 Rat in a Maze</a>	Microsoft Amazon
Backtracking	<a href="#">Combinational Sum</a>	Adobe Amazon Microsoft
Backtracking	<a href="#">Crossword-Puzzle</a>	Microsoft
Backtracking	<a href="#">Longest Possible Route in a Matrix with Hurdles</a>	Microsoft
Backtracking	<a href="#">Printing all solutions in N-Queen Problem</a>	Accolite Amazon Amdocs D-E-Shaw MAQ Software Twitter Visa Microsoft
Backtracking	<a href="#">Solve the Sudoku</a>	Amazon Directi Flipkart MakeMyTrip MAQ Software Microsoft Ola Cabs Oracle PayPal Zoho
Backtracking	<a href="#">Partition Equal Subset Sum</a>	Amazon + Adobe + Accolite + Traveloka
Backtracking	<a href="#">M Coloring Problem</a>	Amazon
Backtracking	<a href="#">Knight Tour</a>	IBM
Backtracking	<a href="#">Sudoku</a>	Amazon + Adobe + Accolite + Traveloka
Backtracking	<a href="#">Remove Invalid Parentheses</a>	Uber
Backtracking	<a href="#">Word Break Problem using Backtracking</a>	
Backtracking	<a href="#">Print all Palindromic Partitions of a String</a>	Facebook Amazon Microsoft
Backtracking	<a href="#">Find Shortest Safe Route in a Path with Landmines</a>	Facebook Amazon Microsoft
Backtracking	<a href="#">Partition of Set into K Subsets with Equal Sum</a>	Amazon



<b>Backtracking</b>	<a href="#">Backtracking set-7 hamiltonian cycle</a>	Amazon
<b>Backtracking</b>	<a href="#">tug-of-war</a>	Google
<b>Backtracking</b>	<a href="#">Maximum Possible Number by doing at most K swaps</a>	Amazon + Adobe + Accolite + Traveloka
<b>Backtracking</b>	<a href="#">Backtracking set-8 solving cryptarithmic puzzles</a>	Goldman Sachs
<b>Backtracking</b>	<a href="#">Find paths from corner cell to middle cell in maze</a>	Meta
<b>Backtracking</b>	<a href="#">Arithmetic Expressions</a>	Flipkart
<b>Linked List</b>	<a href="#">Reverse Linked List</a>	Sprinklr
<b>Linked List</b>	<a href="#">Linked List Cycle</a>	Accolite Amazon D-E-Shaw Hike Lybrate Mahindra Comviva MakeMyTrip MAQ Software OYO Rooms Paytm Qualcomm Samsung SAP Labs Snapdeal Veritas VMWare Walmart Adobe
<b>Linked List</b>	<a href="#">Merge Two Sorted Lists</a>	Accolite Amazon Belzabar Brocade FactSet Flipkart MakeMyTrip Microsoft OATS Systems Oracle Samsung Synopsys Zoho
<b>Linked List</b>	<a href="#">Delete without Head node</a>	Amazon Goldman Sachs Kritikal Solutions Microsoft Samsung Visa
<b>Linked List</b>	<a href="#">Remove duplicates from an unsorted linked list</a>	Amazon Intuit
<b>Linked List</b>	<a href="#">Sort a linked list of 0s-1s-or-2s</a>	<u>Microsoft Amazon MakeMyTrip</u>
<b>Linked List</b>	<a href="#">Multiply two numbers represented linked lists</a>	Amazon

Linked List	<a href="#">Remove nth node from end of list</a>	Accolite Adobe Amazon Citicorp Epic Systems FactSet Hike MAQ Software Monotype Solutions Morgan Stanley OYO Rooms Qualcomm Samsung Snapdeal Flipkart
Linked List	<a href="#">Reorder List</a>	Amazon Microsoft OYO Rooms Intuit
Linked List	<a href="#">Detect and remove loop in a linked list</a>	Accolite Amazon D-E-Shaw Hike Lybrate Mahindra Comviva MakeMyTrip MAQ Software OYO Rooms Paytm Qualcomm Samsung SAP Labs Snapdeal Veritas VMWare Walmart Adobe
Linked List	<a href="#">Write a Function to get the Intersection Point of two Linked Lists</a>	Amazon
Linked List	<a href="#">Flatten a linked list with next and child pointers</a>	Google
Linked List	<a href="#">Linked list in zig-zag fashion</a>	Micorsoft
Linked List	<a href="#">Reverse a doubly linked list</a>	Walmart
Linked List	<a href="#">Delete nodes which have a greater value on right side</a>	Amazon
Linked List	<a href="#">Segregate even and odd Elements in a Linked List</a>	Walmart
Linked List	<a href="#">Point to next higher value node in a linked list with an Arbitrary Pointer</a>	GeekyAnts
Linked List	<a href="#">Rearrange a given linked list in place</a>	Ola Uber
Linked List	<a href="#">Sort Biotonic Doubly Linked Lists</a>	Morgan Stanley
Linked List	<a href="#">Merge K Sorted Lists</a>	Microsoft+ Ola+ eBay
Linked List	<a href="#">Merge sort for linked list</a>	Accolite Adobe Amazon MAQ Software Microsoft Paytm Veritas

Linked List	<a href="#">Quicksort on singly-linked list</a>	Paytm
Linked List	<a href="#">Sum of two linked lists</a>	Accolite Amazon Flipkart MakeMyTrip Microsoft Morgan Stanley Qualcomm Snapdeal
Linked List	<a href="#">Flattening a linked list</a>	24*7 Innovation Labs Amazon Drishti-Soft Flipkart Goldman Sachs Microsoft Paytm Payu Qualcomm Snapdeal Visa
Linked List	<a href="#">Clone a linked list with next and random Pointer</a>	Triology
Linked List	<a href="#">Subtract two numbers represented as linked lists</a>	Amazon Goldman Sachs
Stacks & Queues	<a href="#">Implement two stacks in an Array</a>	24*7 Innovation Labs Microsoft Samsung Snapdeal
Stacks & Queues	<a href="#">Evaluation of Postfix Expression</a>	Amazon + Google + Facebook
Stacks & Queues	<a href="#">Implement Stack using Queues</a>	Facebook
Stacks & Queues	<a href="#">Queue Reversal</a>	Amazon + Morgain Stanley
Stacks & Queues	<a href="#">Implement Stack Queue using Deque</a>	Microsoft +Atlassian
Stacks & Queues	<a href="#">Reverse first k elements of queue</a>	Microsoft + Amdocs
Stacks & Queues	<a href="#">Design Stack with Middle Operation</a>	MaQ Software
Stacks & Queues	<a href="#">Infix to Postfix</a>	Amazon + Samsung + Paytm + Vmware inc
Stacks & Queues	<a href="#">Design and Implement Special stack</a>	Amazon Google Microsoft Visa Goldman Sachs
Stacks & Queues	<a href="#">Longest Valid String</a>	Google Microsoft

Stacks & Queues	<a href="#">Find if an expression has duplicate parenthesis or not</a>	Flipkart Oracle OYO Rooms Snapdeal Walmart Yatra.com Microsoft Google
Stacks & Queues	<a href="#">Stack permutations check if an array is stack permutation of other</a>	Visa
Stacks & Queues	<a href="#">Count natural numbers whose permutation greater number</a>	Amazon
Stacks & Queues	<a href="#">Sort a stack using Recursion</a>	Amazon Goldman Sachs IBM Intuit Kuliza Yahoo Microsoft
Stacks & Queues	<a href="#">Queue based approach for first non repeating character in a stream</a>	Microsoft Flipkart
Stacks & Queues	<a href="#">The Celebrity Problem</a>	Google + Visa + Apple
Stacks & Queues	<a href="#">Next larger Element</a>	Visa
Stacks & Queues	<a href="#">Distance of nearest cell</a>	Flipkar + Facebook
Stacks & Queues	<a href="#">Rotten-oranges</a>	Facebook
Stacks & Queues	<a href="#">Next smaller element</a>	Codenation
Stacks & Queues	<a href="#">Circular-tour</a>	Codenation Flipkart
Stacks & Queues	<a href="#">Efficiently implement k-stacks single array</a>	Flipkart
Stacks & Queues	<a href="#">The celebrity problem</a>	Google + Visa + Apple
Stacks & Queues	<a href="#">Iterative tower of hanoi</a>	Microsoft Flipkart
Stacks & Queues	<a href="#">Find the maximum of minimums for</a>	Amazon Microsoft Flipkart

	<a href="#">every window size in a given array</a>	
<b>Stacks &amp; Queues</b>	<a href="#">lru cache implementation</a>	Microsoft + Uber + Alibaba
<b>Stacks &amp; Queues</b>	<a href="#">Find a tour that visits all stations</a>	Uber
<b>Greedy</b>	<a href="#">Activity selection problem greedy algo</a>	Facebook Morgan Stanley Flipkart
<b>Greedy</b>	<a href="#">Greedy algorithm to find minimum number of coins</a>	Accolite Amazon Morgan Stanley Oracle Paytm Samsung Snapdeal Synopsys Visa Microsoft Google
<b>Greedy</b>	<a href="#">Minimum sum two numbers formed digits array-2</a>	Google
<b>Greedy</b>	<a href="#">Minimum sum absolute difference pairs two arrays</a>	Amazon
<b>Greedy</b>	<a href="#">Find maximum height pyramid from the given array of objects</a>	Flipkart Amazon
<b>Greedy</b>	<a href="#">Minimum cost for acquiring all coins with k extra coins allowed with every coin</a>	
<b>Greedy</b>	<a href="#">Find maximum equal sum of every three stacks</a>	Microsoft Amazon Flipkart
<b>Greedy</b>	<a href="#">Job sequencing problem</a>	Microsoft + Acolite
<b>Greedy</b>	<a href="#">Greedy algorithm egyptian fraction</a>	

<b>Greedy</b>	<a href="#">Fractional knapsack problem</a>	Microsoft
<b>Greedy</b>	<a href="#">Maximum length chain of pairs</a>	Amazon Microsoft
<b>Greedy</b>	<a href="#">Find smallest number with given number of digits and digit sum</a>	MAQ Software OYO Rooms
<b>Greedy</b>	<a href="#">Maximize sum of consecutive differences circular-array</a>	Maccafe
<b>Greedy</b>	<a href="#">paper-cut minimum number squares</a>	Google
<b>Greedy</b>	<a href="#">Lexicographically smallest array-k consecutive swaps</a>	Amazon
<b>Greedy</b>	<a href="#">Problems-CHOCOLA</a>	Flipkart
<b>Greedy</b>	<a href="#">Find minimum time to finish all jobs with given constraints</a>	
<b>Greedy</b>	<a href="#">Job sequencing using disjoint set union</a>	Samsung
<b>Greedy</b>	<a href="#">Rearrange characters string such that no two adjacent are same</a>	Amazon Microsoft
<b>Greedy</b>	<a href="#">Minimum edges to reverse to make path from a source to a destination</a>	
<b>Greedy</b>	<a href="#">Minimize Cash Flow among a given set of friends who have borrowed</a>	

	<a href="#">money from each other</a>	
<b>Greedy</b>	<a href="#">Minimum Cost to cut a board into squares</a>	Maccafe
<b>Binary Trees</b>	<a href="#">Maximum Depth of Binary Tree</a>	Amazon Cadence India CouponDunia D-E-Shaw FactSet FreeCharge MakeMyTrip
<b>Binary Trees</b>	<a href="#">Reverse Level Order Traversal</a>	Amazon + Microsoft + flipkart + Adobe
<b>Binary Trees</b>	<a href="#">Subtree of Another Tree</a>	Amazon + Microsoft + Facebook
<b>Binary Trees</b>	<a href="#">Invert Binary Tree</a>	Amazon Hike
<b>Binary Trees</b>	<a href="#">Binary Tree Level Order Traversal</a>	Accolite Adobe Amazon Cisco D-E-Shaw Flipkart
<b>Binary Trees</b>	<a href="#">Left View of Binary Tree</a>	Microsoft + Adobe + Cisco Networking Academy
<b>Binary Trees</b>	<a href="#">Right View of Binary Tree</a>	Amdocs
<b>Binary Trees</b>	<a href="#">ZigZag Tree Traversal</a>	Amazon Cisco FactSet Hike Snapdeal Walmart Microsoft Flipkart
<b>Binary Trees</b>	<a href="#">Create a mirror tree from the given binary tree</a>	Accolite Adobe Amazon Belzabar EBay Goldman Sachs Microsoft Morgan Stanley Myntra Ola Cabs Paytm
<b>Binary Trees</b>	<a href="#">Leaf at same level</a>	Amazon
<b>Binary Trees</b>	<a href="#">Check for Balanced Tree</a>	Amazon Walmart Microsoft
<b>Binary Trees</b>	<a href="#">Transform to Sum Tree</a>	Amazon FactSet Microsoft Samsung Walmart
<b>Binary Trees</b>	<a href="#">Check if Tree is Isomorphic</a>	Amazon Microsoft
<b>Binary Trees</b>	<a href="#">Same Tree</a>	Amazon Microsoft Flipkart
<b>Binary Trees</b>	<a href="#">Construct Binary Tree from Preorder and Inorder Traversal</a>	Accolite Amazon Microsoft

Binary Trees	<a href="#">Height of Binary Tree</a>	Amazon Cadence India CouponDunia D-E-Shaw FactSet FreeCharge MakeMyTrip
Binary Trees	<a href="#">Diameter of a Binary Tree</a>	Amazon Microsoft OYO Rooms
Binary Trees	<a href="#">Top View of Binary Tree</a>	Microsoft + Adobe + Expedia Group
Binary Trees	<a href="#">Bottom View of Binary Tree</a>	DE Shaw India
Binary Trees	<a href="#">Diagonal Traversal of Binary Tree</a>	Amazon Microsoft
Binary Trees	<a href="#">Boundary Traversal of binary tree</a>	Accolite Amazon FactSet Hike Kritikal Solutions
Binary Trees	<a href="#">Construct Binary Tree from String with Brackets</a>	Microsoft Morgan Stanley OYO Rooms Payu Samsung Snapdeal Flipkart
Binary Trees	<a href="#">Minimum swap required to convert binary tree to binary search tree</a>	Adobe Amazon
Binary Trees	<a href="#">Duplicate subtree in Binary Tree</a>	Google
Binary Trees	<a href="#">Check if a given graph is tree or not</a>	Microsoft Amazon
Binary Trees	<a href="#">Lowest Common Ancestor in a Binary Tree</a>	Accolite Amazon American Express Cisco Expedia Flipkart MakeMyTrip Microsoft OYO Room
Binary Trees	<a href="#">Min distance between two given nodes of a Binary Tree</a>	Amazon Linkedin MakeMyTrip Ola Cabs Qualcomm Samsung
Binary Trees	<a href="#">Duplicate Subtrees</a>	Ola
Binary Trees	<a href="#">Kth ancestor of a node in binary tree</a>	Josh Technology Group
Binary Trees	<a href="#">Binary Tree Maximum Path Sum</a>	Samsung + Facebook



Binary Trees	<a href="#">Serialize and Deserialize Binary Tree</a>	Flipkart InMobi LinkedIn MAQ Software Microsoft Paytm Quikr Yahoo
Binary Trees	<a href="#">Binary Tree to DLL</a>	Accolite Amazon Goldman Sachs Microsoft Morgan Stanley Salesforce Snapdeal
Binary Trees	<a href="#">Print all k-sum paths in a binary tree</a>	Accolite Amazon Goldman Sachs
Binary Search Trees	<a href="#">Lowest Common Ancestor of a Binary Search Tree</a>	Accolite Amazon Flipkart MAQ Software Microsoft Samsung Synopsys
Binary Search Trees	<a href="#">Binary Search Tree   Set 1 (Search and Insertion)</a>	Accolite Amazon Microsoft Paytm Samsung
Binary Search Trees	<a href="#">Minimum element in BST</a>	Microsoft
Binary Search Trees	<a href="#">Predecessor and Successor</a>	Google + Adobe + Goldman Sachs + Direct
Binary Search Trees	<a href="#">Check whether BST contains Dead End</a>	Walmart
Binary Search Trees	<a href="#">Binary Tree to BST</a>	HSBC
Binary Search Trees	<a href="#">Kth largest element in BST</a>	Accolite Amazon Samsung SAP Labs Microsoft
Binary Search Trees	<a href="#">Validate Binary Search Tree</a>	OYO Rooms Qualcomm Samsung Snapdeal VMWare Walmart Wooker Amazon Facebook
Binary Search Trees	<a href="#">Kth Smallest Element in a BST</a>	Accolite Amazon Google
Binary Search Trees	<a href="#">Delete Node in a BST</a>	Adobe Barclays

Binary Search Trees	<a href="#">Flatten BST to sorted list</a>	Microsoft
Binary Search Trees	<a href="#">Preorder to Postorder</a>	Amazon LinkedIn Flipkart
Binary Search Trees	<a href="#">Count BST nodes that lie in a given range</a>	D-E-Shaw Google
Binary Search Trees	<a href="#">Populate Inorder Successor for all Nodes</a>	Sap labs
Binary Search Trees	<a href="#">Convert Normal BST to Balanced BST</a>	Paytm
Binary Search Trees	<a href="#">Merge two BSTs</a>	DE Shaw India
Binary Search Trees	<a href="#">Given n appointments, find all conflicting appointments</a>	Samsung
Binary Search Trees	<a href="#">Replace every element</a>	Samsung
Binary Search Trees	<a href="#">Construct BST from given preorder traversal</a>	Adobe Morgan Stanley Microsoft
Binary Search Trees	<a href="#">Find median of BST in O(n) time and O(1) space</a>	Amazon
Binary Search Trees	<a href="#">Largest BST in a Binary Tree</a>	Amazon D-E-Shaw Samsung Microsoft Flipkart
Heaps & Hashing	<a href="#">Choose k array elements such that difference of maximum and minimum is minimized</a>	

Heaps & Hashing	<a href="#">Heap Sort</a>	Adobe
Heaps & Hashing	<a href="#">Top K Frequent Elements</a>	Amazon Microsoft
Heaps & Hashing	<a href="#">k largest elements in an array</a>	Amazon Microsoft Walmart Adobe
Heaps & Hashing	<a href="#">Next Greater Element</a>	Amazon + Microsoft + Flipkart + Adobe
Heaps & Hashing	<a href="#">K'th Smallest/Largest Element in Unsorted Array</a>	ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMWare Google Adobe
Heaps & Hashing	<a href="#">Find the maximum repeating number in O(n) time and O(1) extra space</a>	Accolite Amazon
Heaps & Hashing	<a href="#">K-th smallest element after removing some integers from natural numbers</a>	ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMWare Google Adobe
Heaps & Hashing	<a href="#">Find k closest elements to a given value</a>	Amazon OYO Rooms
Heaps & Hashing	<a href="#">K'th largest element in a stream</a>	Amazon Cisco Hike OYO Rooms Walmart Microsoft Flipkart
Heaps & Hashing	<a href="#">Connect Ropes</a>	Amazon + Oyo + Goldman Sachs
Heaps & Hashing	<a href="#">Cuckoo Hashing</a>	Amazon
Heaps & Hashing	<a href="#">Itinerary from a List of Tickets</a>	Microsoft + Ola + eBay
Heaps & Hashing	<a href="#">Largest Subarray with 0 Sum</a>	Amazon MakeMyTrip Microsoft
Heaps & Hashing	<a href="#">Count distinct elements in every window of size k</a>	Accolite Amazon Microsoft
Heaps & Hashing	<a href="#">Group Shifted Strings</a>	Oracle

Heaps & Hashing	<a href="#">Merge K Sorted lists</a>	Microsoft + Ola + eBay
Heaps & Hashing	<a href="#">Find Median from Data Stream</a>	Adobe Amazon Apple Belzabar D-E-Shaw Facebook Flipkart Google Intuit Microsoft Morgan Stanley Ola Cabs Oracle Samsung SAP Labs Yahoo
Heaps & Hashing	<a href="#">Sliding Window Maximum</a>	Amazon Directi Flipkart Microsoft Google
Heaps & Hashing	<a href="#">Find the smallest positive number</a>	Accolite Amazon Samsung Snapdeal
Heaps & Hashing	<a href="#">Find Surpasser Count of each element in array</a>	Amazon Morgan Stanley Ola Cabs SAP Labs
Heaps & Hashing	<a href="#">Tournament Tree and Binary Heap</a>	Amazon Ola Cabs Samsung Synopsys Walmart Microsoft
Heaps & Hashing	<a href="#">Check for palindrome</a>	Amazon Cisco D-E-Shaw Facebook FactSet Morgan Stanley Paytm Zoho
Heaps & Hashing	<a href="#">Length of the largest subarray with contiguous elements</a>	Amazon Intuit Microsoft
Heaps & Hashing	<a href="#">Palindrome Substring Queries</a>	Amazon Morgan Stanley Ola Cabs SAP Labs
Heaps & Hashing	<a href="#">Subarray distinct elements</a>	Microsoft + Ola + eBay
Heaps & Hashing	<a href="#">Find the recurring function</a>	MAQ Software
Heaps & Hashing	<a href="#">K maximum sum combinations from two arrays</a>	Amazon
Graphs	<a href="#">BFS</a>	Samsung + Delhivery + SAP Labs
Graphs	<a href="#">DFS</a>	Samsung + Intuit + Goldman Sachs
Graphs	<a href="#">Flood Fill Algorithm</a>	Google + Adobe + Apple
Graphs	<a href="#">Number of Triangles</a>	IBM

<b>Graphs</b>	<a href="#">Detect cycle in a graph</a>	Lenksart
<b>Graphs</b>	<a href="#">Detect cycle in an undirected graph</a>	Samsung
<b>Graphs</b>	<a href="#">Rat in a Maze Problem</a>	Sharechat + Directi
<b>Graphs</b>	<a href="#">Steps by Knight</a>	Samsung
<b>Graphs</b>	<a href="#">Clone graph</a>	Google + MAQ Software + Apple + Facebook
<b>Graphs</b>	<a href="#">Number of Operations to Make Network Connected</a>	Samsung
<b>Graphs</b>	<a href="#">Dijkstra's shortest path algorithm</a>	Amazon
<b>Graphs</b>	<a href="#">Topological Sort</a>	Amazon + Google + Flipkart + Oyo + Fipkart + Samsung
<b>Graphs</b>	<a href="#">Oliver and the Game</a>	Sharechat + Directi
<b>Graphs</b>	<a href="#">Minimum time taken by each job to be completed given by a Directed Acyclic Graph</a>	Amazon
<b>Graphs</b>	<a href="#">Find whether it is possible to finish all tasks or not from given dependencies</a>	Directi + Sharechat
<b>Graphs</b>	<a href="#">Find the number of islands</a>	Razorpay
<b>Graphs</b>	<a href="#">Prim's Algo</a>	Visa
<b>Graphs</b>	<a href="#">Negative Weighted Cycle</a>	Amazon
<b>Graphs</b>	<a href="#">Floyd Warshall</a>	Google + Uber
<b>Graphs</b>	<a href="#">Graph Coloring</a>	Morgan Stanley
<b>Graphs</b>	<a href="#">Snakes and Ladders</a>	Goldman Sachs +Makemytrip

Graphs	<a href="#">Kosaraju's Theorem</a>	Paytm
Graphs	<a href="#">Journey to moon</a>	Lenksart + Payload
Graphs	<a href="#">Vertex Cover</a>	Intuit
Graphs	<a href="#">M Coloring Problem</a>	Uber
Graphs	<a href="#">Cheapest Flights Within K Stops</a>	Uber + Paypal
Graphs	<a href="#">Find if there is a path of more than k length from a source</a>	Cisco + Intuit
Graphs	<a href="#">Bellman Ford</a>	Sharechat + Directi
Graphs	<a href="#">Bipartite Graph</a>	Microsoft Flipkart
Graphs	<a href="#">Word-Ladder</a>	Microsoft
Graphs	<a href="#">Allen Dictionary</a>	Samsung
Graphs	<a href="#">Kruskals MST</a>	Amazon Cisco Samsung
Graphs	<a href="#">Total number spanning trees graph</a>	Amazon Cisco Samsung Microsoft Flipkart
Graphs	<a href="#">Travelling Salesman</a>	Google + Microsoft + Opera
Graphs	<a href="#">Find longest path directed acyclic graph</a>	Google
Graphs	<a href="#">Two Clique Problem</a>	Microsoft
Graphs	<a href="#">Minimise the cash flow</a>	Intuit + Uber
Graphs	<a href="#">Chinese postman</a>	Intuit
Graphs	<a href="#">Water Jug</a>	Intuit + Uber
Graphs	<a href="#">Water Jug 2</a>	MakeMyTrip MAQ Software
Tries	<a href="#">Construct a trie from scratch</a>	Accolite Amazon D-E-Shaw FactSet Microsoft
Tries	<a href="#">Print unique rows in a given boolean matrix</a>	Amazon Zoho

<b>Tries</b>	<a href="#">Word Break Problem   (Trie solution)</a>	Amazon Google Hike IBM MAQ Software Microsoft Walmart Zoho
<b>Tries</b>	<a href="#">Given a sequence of words, print all anagrams together</a>	Amazon D-E-Shaw Goldman Sachs Morgan Stanley Snapdeal Microsoft
<b>Tries</b>	<a href="#">Find shortest unique prefix for every word in a given list</a>	Microsoft Google
<b>Tries</b>	<a href="#">Implement a Phone Directory</a>	Amazon + Microsoft + Snapdeal
<b>DP</b>	<a href="#">Knapsack with Duplicate Items</a>	Amazon
<b>DP</b>	<a href="#">BBT counter</a>	Microsoft
<b>DP</b>	<a href="#">Reach a given score</a>	Samsung
<b>DP</b>	<a href="#">Maximum difference of zeros and ones in binary string</a>	Ola
<b>DP</b>	<a href="#">Climbing Stairs</a>	Intuit
<b>DP</b>	<a href="#">Permutation Coefficient</a>	Amazon
<b>DP</b>	<a href="#">Longest Repeating Subsequence</a>	Google + Amazon
<b>DP</b>	<a href="#">Pairs with specific difference</a>	Ola
<b>DP</b>	<a href="#">Longest subsequence-1</a>	Amazon
<b>DP</b>	<a href="#">Coin Change</a>	Microsoft+ Samsung + Barclays + Apple + Adobe
<b>DP</b>	<a href="#">LIS</a>	Amazon + Google + Facebook + Fidelity International
<b>DP</b>	<a href="#">Longest Common Subsequence</a>	Siemens + Amazon + Google
<b>DP</b>	<a href="#">Word Break</a>	Amazon + Google + Microsoft + Walmart + Apple + IBM

DP	<a href="#">Combination Sum IV</a>	Adobe Amazon Microsoft
DP	<a href="#">House Robber</a>	Apple + Uber
DP	<a href="#">House Robber 2</a>	Arrays Dynamic Programming
DP	<a href="#">Decode Ways</a>	Adobe + Uber
DP	<a href="#">Unique Paths</a>	Google + Microsoft
DP	<a href="#">Jumps Game</a>	Facebook Amazon Microsoft Google
DP	<a href="#">Knapsack Problem</a>	Amazon Directi Flipkart GreyOrange Microsoft Mobicip Morgan Stanley Oracle Payu Snapdeal Visa
DP	<a href="#">nCr</a>	Google
DP	<a href="#">Catalan Number</a>	Amazon + Google
DP	<a href="#">Edit Distance</a>	Google + Goldman Sachs + Citrix
DP	<a href="#">Subset Sum</a>	Amazon + Google
DP	<a href="#">Gold mine</a>	Samsung
DP	<a href="#">Assembly Line Scheduling</a>	Goldman Sachs
DP	<a href="#">Maximize The Cut Segments</a>	Amazon OYO Rooms Microsoft
DP	<a href="#">Maximum sum increasing subsequence</a>	Amazon Morgan Stanley Microsoft
DP	<a href="#">Count all subsequences having product less than K</a>	Goldman Sachs
DP	<a href="#">Maximum sum increasing subsequence</a>	Amazon Morgan Stanley Microsoft
DP	<a href="#">Egg dropping puzzle</a>	Amazon D-E-Shaw Goldman Sachs Google Hike MakeMyTrip MAQ Software Myntra Nearbuy Opera Oracle Philips Samsung Service Now Unisys VMWare Microsoft
DP	<a href="#">Max length chain</a>	Amazon Microsoft
DP	<a href="#">Largest Square in Matrix</a>	Amazon Samsung
DP	<a href="#">Maximum Path Sum</a>	Amazon + Microsoft + Oyo + Directi
DP	<a href="#">Minimum Number of Jumps</a>	Adobe Amazon Housing.com Moonfrog Labs Walmart Microsoft Google Flipkart



DP	<a href="#">Minimum removals from array to make <math>\max - \min \leq K</math></a>	Amazon
DP	<a href="#">Longest Common Substring</a>	Webarch Club
DP	<a href="#">Partition Equal Subset Sum</a>	Amazon + Accolite + Traveloca + Adobe
DP	<a href="#">Longest Palindromic Subsequence</a>	Amazon Google
DP	<a href="#">Count Palindromic Subsequences</a>	Myntra
DP	<a href="#">Longest Palindromic Substring</a>	Amazon + Microsoft + Samsung + Visa
DP	<a href="#">Longest Alternating Sequence</a>	Ola
DP	<a href="#">Weighted Job Scheduling</a>	Intuit
DP	<a href="#">Coin Game</a>	Salesforce
DP	<a href="#">Coin Game Winner</a>	Ola
DP	<a href="#">Optimal Strategy for a game</a>	Google + IBM
DP	<a href="#">Word Wrap</a>	Microsoft
DP	<a href="#">Mobile numeric keypad</a>	Amazon Microsoft
DP	<a href="#">Maximum Length of Pair Chain</a>	Amazon Microsoft
DP	<a href="#">Matrix Chain Multiplication</a>	Walmart + Flipkart
DP	<a href="#">Maximum profit by buying and selling a share at most twice</a>	Accolite Amazon Microsoft
DP	<a href="#">Optimal BST</a>	Google
DP	<a href="#">Largest Submatrix with sum 0</a>	Amazon MakeMyTrip Microsoft

<b>DP</b>	<a href="#">Largest area rectangular sub-matrix with equal number of 1's and 0's</a>	Amazon Directi Intuit MakeMyTrip Microsoft Samsung Google Flipkart
<b>Bit Manipulation</b>	<a href="#">Count set bits in an integer</a>	Adobe Apple
<b>Bit Manipulation</b>	<a href="#">Find the two non-repeating elements in an array of repeating elements</a>	Accolite Amazon FactSet Google MakeMyTrip Microsoft Qualcomm Samsung
<b>Bit Manipulation</b>	<a href="#">Program to find whether a no is power of two</a>	Adobe
<b>Bit Manipulation</b>	<a href="#">Find position of the only set bit</a>	Microsoft
<b>Bit Manipulation</b>	<a href="#">Count number of bits to be flipped to convert A to B</a>	Maq Software
<b>Bit Manipulation</b>	<a href="#">Count total set bits in all numbers from 1 to n</a>	Microsoft
<b>Bit Manipulation</b>	<a href="#">Copy set bits in a range</a>	Facebook
<b>Bit Manipulation</b>	<a href="#">Calculate square of a number without using *, / and pow()</a>	Amazon
<b>Bit Manipulation</b>	<a href="#">Divide two integers without using multiplication, division and mod operator</a>	Microsoft

<b>Bit Manipulation</b>	<a href="#">Power Set</a>	Google + Adobe + Paytm
<b>Segment Trees</b>	<a href="#">Range Sum Query - Immutable</a>	
<b>Segment Trees</b>	<a href="#">Range Minimum Query</a>	Google Interview Qs
<b>Segment Trees</b>	<a href="#">Range Sum Query - Mutable</a>	Alibaba
<b>Segment Trees</b>	<a href="#">Create Sorted Array through Instructions</a>	Samsung + Accolite
<b>Segment Trees</b>	<a href="#">Count of Range Sum</a>	Walmart
<b>Segment Trees</b>	<a href="#">Count of Smaller Numbers After Self</a>	Codenation Google

## Java Singly Linked List Programs

- 1) Singly linked list Examples in Java
  - 2) Java Program to create and display a singly linked list
  - 3) Java program to create a singly linked list of n nodes and count the number of nodes
  - 4) Java program to create a singly linked list of n nodes and display it in reverse order
  - 5) Java program to delete a node from the beginning of the singly linked list
  - 6) Java program to delete a node from the middle of the singly linked list
  - 7) Java program to delete a node from the end of the singly linked list
  - 8) Java program to determine whether a singly linked list is the palindrome
  - 9) Java program to find the maximum and minimum value node from a linked list
  - 10) Java Program to insert a new node at the middle of the singly linked list
  - 11) Java program to insert a new node at the beginning of the singly linked list
  - 12) Java program to insert a new node at the end of the singly linked list
  - 13) Java program to remove duplicate elements from a singly linked list
  - 14) Java Program to search an element in a singly linked list
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## Java Circular Linked List Programs

- 1) Java program to create and display a Circular Linked List
- 2) Java program to create a Circular Linked List of N nodes and count the number of nodes
- 3) Java program to create a Circular Linked List of n nodes and display it in reverse order
- 4) Java program to delete a node from the beginning of the Circular Linked List

- 5) Java program to delete a node from the end of the Circular Linked List
  - 6) Java program to delete a node from the middle of the Circular Linked List
  - 7) Java program to find the maximum and minimum value node from a circular linked list
  - 8) Java program to insert a new node at the beginning of the Circular Linked List
  - 9) Java program to insert a new node at the end of the Circular Linked List
  - 10) Java program to insert a new node at the middle of the Circular Linked List
  - 11) Java program to remove duplicate elements from a Circular Linked List
  - 12) Java program to search an element in a Circular Linked List
  - 13) Java program to sort the elements of the Circular Linked List
- 

## Java Doubly Linked List Programs

- 1) Java program to convert a given binary tree to doubly linked list
- 2) Java program to create a doubly linked list from a ternary tree
- 3) Java program to create a doubly linked list of n nodes and count the number of nodes
- 4) Java program to create a doubly linked list of n nodes and display it in reverse order
- 5) Java program to create and display a doubly linked list
- 6) Java program to delete a new node from the beginning of the doubly linked list
- 7) Java program to delete a new node from the end of the doubly linked list
- 8) Java program to delete a new node from the middle of the doubly linked list
- 9) Java program to find the maximum and minimum value node from a doubly linked list

- 10) Java program to insert a new node at the beginning of the Doubly Linked list
  - 10) Java program to insert a new node at the end of the Doubly Linked List
  - 12) Java program to insert a new node at the middle of the Doubly Linked List
  - 13) Java program to remove duplicate elements from a Doubly Linked List
  - 14) Java program to rotate doubly linked list by N nodes
  - 15) Java program to search an element in a doubly linked list
  - 16) Java program to sort the elements of the doubly linked list
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## Java Tree Programs

- 1) Java Program to calculate the Difference between the Sum of the Odd Level and the Even Level Nodes of a Binary Tree
- 2) Java program to construct a Binary Search Tree and perform deletion and In-order traversal
- 3) Java program to convert Binary Tree to Binary Search Tree
- 4) Java program to determine whether all leaves are at same level
- 5) Java program to determine whether two trees are identical
- 6) Java program to find maximum width of a binary tree
- 7) Java program to find the largest element in a Binary Tree
- 8) Java program to find the maximum depth or height of a tree
- 9) Java program to find the nodes which are at the maximum distance in a Binary Tree
- 10) Java program to find the smallest element in a tree
- 11) Java program to find the sum of all the nodes of a binary tree
- 12) Java program to find the total number of possible Binary Search Trees with N keys

13) Java program to implement Binary Tree using the Linked List

14) Java program to search a node in a Binary Tree

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