

# List of array and matrix programming exercises

- ✓ 1. Write a C program to read and print elements of array. - using recursion.
- ✓ 2. Write a C program to print all negative elements in an array.
- ✓ 3. Write a C program to find sum of all array elements. - using recursion.
- ✓ 4. Write a C program to find maximum and minimum element in an array. - using recursion.
5. Write a C program to find second largest element in an array.
- ✓ 6. Write a C program to count total number of even and odd elements in an array.
- ✓ 7. Write a C program to count total number of negative elements in an array.
8. Write a C program to copy all elements from an array to another array.
9. Write a C program to insert an element in an array.
10. Write a C program to delete an element from an array at specified position.
11. Write a C program to count frequency of each element in an array.
12. Write a C program to print all unique elements in the array.
13. Write a C program to count total number of duplicate elements in an array.
14. Write a C program to delete all duplicate elements from an array.
15. Write a C program to merge two array to third array.
16. Write a C program to find reverse of an array.
17. Write a C program to put even and odd elements of array in two separate array.
18. Write a C program to search an element in an array.
19. Write a C program to sort array elements in ascending or descending order.
20. Write a C program to sort even and odd elements of array separately.
21. Write a C program to left rotate an array.
22. Write a C program to right rotate an array.

# List of matrix programming exercises

23. Write a C program to add two matrices.
24. Write a C program to subtract two matrices.
25. Write a C program to perform Scalar matrix multiplication.
26. Write a C program to multiply two matrices.
27. Write a C program to check whether two matrices are equal or not.
28. Write a C program to find sum of main diagonal elements of a matrix.
29. Write a C program to find sum of minor diagonal elements of a matrix.
30. Write a C program to find sum of each row and column of a matrix.
31. Write a C program to interchange diagonals of a matrix.
32. Write a C program to find upper triangular matrix.
33. Write a C program to find lower triangular matrix.
34. Write a C program to find sum of upper triangular matrix.
35. Write a C program to find sum of lower triangular matrix.
36. Write a C program to find transpose of a matrix.
37. Write a C program to find determinant of a matrix.

38. [Write a C program to check Identity matrix.](#)
39. [Write a C program to check Sparse matrix.](#)
40. [Write a C program to check Symmetric matrix.](#)