C Programming Practice Exercises

1. Write a program that stores marks of N students in an array. Use separate functions to read marks, calculate average, find highest and lowest marks, and display the results. Determine array size inside main using sizeof.

2. Write a menu-driven program using functions to perform the following on an integer array: insert element, delete element, search element, and display array. Array size should be calculated using sizeof.

3. Write a program to check whether an array is sorted or not. Create separate functions for input, checking logic, and output.

4. Write a program to rotate an array to the left by one position. Use one function for rotation and another for displaying the array.

5. Write a program that counts how many times a given number appears in an array. Use a function that accepts array and its size.

6. Write a program to merge two arrays into a third array. Use separate functions for reading arrays and merging logic.

7. Write a program to remove duplicate elements from an array. Display the array before and after removal using functions.

8. Write a program to perform linear search using a function. The function should return the index if found, otherwise return -1.

9. Write a program to find the second largest element in an array using functions.

10. Write a program to reverse a string using pointers and a function.

11. Write a program to check whether a string is a palindrome using a function and pointers.

12. Write a program to count words, characters, and spaces in a string using functions.

13. Write a program to store details of multiple students using a structure and display students whose marks are above average.

14. Write a program that uses a function to swap first and last elements of an array using pointers.

15. Write a program to simulate a simple calculator using functions. The program should keep running until the user chooses to exit.