

# Lets Learn C: Coding Problems

- 1- Write a program to input two numbers from user and perform various arithmetic operations on them. Give a menu for user to choose between the various operators.
- 2- Write a program to input a number from user and determine odd and even.
- 3- Write a program to input two numbers and perform various bitwise operations on them. Create a menu for user to choose between different bitwise operator.
- 4- Write a program to find the sum of integers from 1 to N, where N is taken as user input.
- 5- Create a program to convert temperature from Celsius to Kelvin. Take temperature input from user.
- 6- Write a C program that uses a switch statement to handle different cases for different arithmetic operations (addition, subtraction, multiplication, division) based on user input.
- 7- Create a C program that checks whether a given year is a leap year. Use nested if and else statements to handle different conditions.
- 8- Implement a C program using a switch statement that prints the days of the week. Use a break statement to exit the switch and a default case for handling invalid input.
- 9- Write a C program that uses a while loop to print the Fibonacci series up to a given number of terms.
- 10- Develop a C program that uses a do-while loop to take user input for a password until the correct password is entered.

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- 11- Create a C program that uses a for loop to calculate the factorial of a given number.
- 12- Write a C program that defines a function to find the maximum of two numbers and then use this function in the main program.
- 13- Implement a C program that contains multiple functions to calculate the area and perimeter of a rectangle. Call these functions from the main program.
- 14- Develop a C program that uses recursion to calculate the nth term of the Fibonacci series.
- 15- Write a C program to swap two integers using pointers.
- 16- Create a program that takes an array of integers, finds the maximum value using pointers, and prints its address.
- 17- Develop a simple C program to add two integers using pointer arithmetic.
- 18- Write a program that increments each element of an integer array by a specific value using pointer arithmetic.
19. Create a C program to calculate the sum of elements in an integer array.
20. Implement a program that finds the second-largest element in an array of floatingpoint numbers.
21. Write a C program to add two matrices.
22. Develop a program that transposes a square matrix using pointer notation.

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23. Build a program to concatenate two strings in C.
24. Implement a program that checks if a given string is a palindrome or not.
25. Create a C program to define and display information about a student using a structure.
26. Write a program to calculate the average GPA of a group of students represented by a structure.
27. Develop a C program that uses a union to represent the same data as an integer and a floating-point number.
28. Create a program that uses a union to store information about a shape (rectangle or circle) and calculates its area.
29. Write a program that dynamically allocates memory for an integer and assigns a value to it.
30. Develop a program that dynamically creates an array of structures representing students and allows the user to add new students.
31. Create a C program that reads and prints the content of a text file.
32. Write a program that copies the content of one text file to another.
33. Develop a C program that counts the number of lines in a text file using file pointers.
34. Implement a program that searches for a specific word in a text file and prints the line numbers where it is found.