

EST 102 Programming in C - Lab Program List

Jyothi Engineering College, Cheruthuruthy, Thrissur, Kerala

Department of Computer Science & Engineering

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Source **Code**

Programs by Alwin Mathew

Cycle **1**

1. Familiarization of Hardware Components of a Computer
 2. Familiarization of Linux Environment - Linux Basic Commands
 3. Write a C program to find the sum of two integer numbers.
 4. Write a C program to find the area of a triangle.
 5. Write a C program to find the area of a circle.
 6. Write a C program to check whether a given integer number is odd or even.
 7. Write a C program to find the largest of two integer numbers.
 8. Write a C program to find the largest of three integer numbers.
 9. Write a C program to convert Celsius to Fahrenheit.
 10. Write a C program to find the power of a number.
 11. Write a C program to swap two integer numbers.
 12. Write a C program to implement a simple calculator using a switch case.
 13. Write a C program to find the sum of first n natural numbers using a while loop.
 14. Write a C program to find the sum of the digits of a given number using a do-while loop.
 15. Write a C program to find the reverse of a number.
 16. Write a C program to check whether a given number is palindrome or not.
 17. Write a C program to find the factorial of a number using for loop.
 18. Write a C program to check whether a given number is Armstrong or not.
 19. Write a C program to print the Fibonacci series.
 20. Write a C program to check whether a given number is prime or not.
 21. Write a C program to check whether a given number is a perfect number or not.
 22. Write a C program to check whether a given number is a strong number or not.
 23. Write a C program to print Floyd's triangle.
 24. Write a C program to check whether a given year is a leap year or not.
 25. Write a C program to find the roots of a quadratic equation.
 26. Write a C program to find the sum of the following series up to N terms ($2+5+10+17+26+37+\dots+N$)
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Cycle **2**

27. Write a C program to find the average of 4 numbers using array.
 28. Write a C program to implement linear search.
 29. Write a C program to find the largest of N numbers.
 30. Write a C program to find the smallest of N numbers.
 31. Write a C program to implement bubble sort.
 32. Write a C program to read and print a 2D matrix.
 33. Write a C program to add 2 matrices.
 34. Write a C program to multiply 2 matrices.
 35. Write a C program to transpose a matrix.
 36. Write a C program to find the length of a string (without using strlen function).
 37. Write a C program to reverse a string (may use strlen from string.h)
 38. Write a C program to check whether a given string is palindrome or not.
 39. Write a C program to count the no of vowels in a string.
 40. Write a C program to concatenate two strings (using strcat function).
 41. Write a C program to sort a set of words (use string handling functions - strcmp and strcpy).
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Cycle 3

42. Write a C program to add two numbers using a function.
 43. Write a C program to find the largest of two numbers using function.
 44. Write a C program to find the factorial of a number using a function.
 45. Write a C program to find the sum of the digits of a number using a function.
 46. Write a C program using the function to check whether a given number is prime or not.
 47. Write a C program to check whether a given number is Strong or not using a nested function.[main()-->armstrong()-->factorial()]
 48. Write a C program to find the largest number in an array using a function.
 49. Write a C program using the function to add two matrices.
 50. Write a C program to find the factorial of a number using recursion.
 51. Write a C program to display the Fibonacci series using a recursive function.
 52. Write a C program to find the sum of the digits of a number using a recursive function.
 53. Write a C program to implement bubble sort using functions.
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Cycle 4

54. Write a C program to store and print student details using structure.
55. Write a C program to create a structure containing the fields: Name, Price, Quantity, and Total amount. Use separate functions to read and print data.
56. Write a C program to find the sum of all elements in an array using pointers.
57. Write a C program to find the largest of two numbers using pointers.
58. Write a C program to swap two numbers using pointers(use call by address/reference/pointers parameter passing method)
59. Write a C program to find the largest of n numbers using pointers.
60. Write a C program to reverse a string using pointers.
61. Write a C program to copy the content of one file to another file.
62. Write a C program to count the number of characters, words, and lines in a file.

63. Write a C program to read a set of numbers from a file named 'data.txt', then write all the 'odd' numbers to a file named 'odd.txt' & all 'even' numbers to a file named 'even.txt'
 64. Write a C program to merge the contents of two files into a third file.
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