

# EST 102 Programming in C - Lab Program List

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Jyothi Engineering College, Cheruthuruthy, Thrissur, Kerala

Department of Computer Science & Engineering

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Source Code

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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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