ACROPOLIS GROUP OF INSTITUTIONS
CAREER DEVELOPMENT CELL
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List of important Programs for campus.

1. Write a program to find the reverse of a given string.

2. Write a program to check the given string is palindrome or not.

3. Write a program to reverse the given number.

4. A Fibonacci sequence is defined as follows:
The first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Write a C program to generate the first n terms of the sequence.

5. Write a program to find the factorial of a given number.

6. Write a program to find the factorial of a given number using recursion.

7. Write a program to print the Fibonacci series using recursion.

8. Write a program finds the GCD of two given integers using recursion.

9. Write a C program to check the given number is prime number or not.

10. Write a function to interchange two integer values using call-by-value technique.

11. Write a function to interchange two integer values using call by reference technique.

12. Write a program to find the power (a, b) using recursion.

13.Write a program to print the following (pyramid of numbers).

Program:1

```
   1
  2 2
 3 3 3
4 4 4 4
```

program 2:

```
    1
   2 3
  4 5 6
 7 8 9 10
```

program:3

```
    *
   * *
  * * *
 * * * *
```

14. Write a program to find the gcd of the given 2 numbers.

15.Write a C program that uses functions to perform the following operations:
i.To insert a sub-string in to given main string from a given position.
ii.To delete n Characters from a given position in a given string.
iii.To replace a character of string either from beginning or ending or at a specified location.

16.Write a program to swap two values without using temporary variable.

17.Write a program to check the given year is leap year or not.

18.Wap to implement linear search using recursion.

19.Wap implement linear search without using recursion.

20. Wap to implement Binary search using recursion.

21.Wap implement Binary search without using recursion.

22.Write a function to sort 1d integer array using Bubble sort.

23.Write a function to sort 1d integer array using Selection sort.

24.Write a function to sort 1d integer array using Insertion sort.

25.Write a function to sort 1d integer array using Merge sort.

26.Write a program to find both the largest and smallest number of an array of integers.

27.Write a program to find the smallest and largest element in a two dimensional array.

28.Write a C function to generate Pascal's triangle.

29.Write a function to convert a string into its opposite case.

30.Write a program to print the grade of the student as follows:
If m>=60 print grade as FIRST
If m>=50 and m<60 print grade as SECOND
If m>=40 and m<50 print grade as THIRD
If m<40 and print grade as FAILED

31.Write a C program to find the sum of individual digits of a positive integer.

32.Wap for Matrix multiplication by checking compatibility.

33.Write a function which takes 1d integer array as an argument and return the maximum value.

34. Write a function which takes a matrix as an argument and return its transpose.

35.Write a program to copy the string into another string using pointers.

36. Write a function which takes a string as an argument and return its length.(using pointers).

37. Write a program to find 1+1/2+1/3+1/4…. Value.

38.Wap to find NCr value.

39.Write a program to calculate mn value using do-while loop.

40.Write a program to check whether the given number is an Amstrong number or not.

41.Write a program to check whether the two strings are identical or not.

42.Wap to sort the characters in a given string.

43.Wap to check the given matrix is symmetric or not.

44.Write a program to illustrate usage of automatic,globel,extern,static and register variables.

45. Write a program to find the sum of 1 d integer array(using malloc( )).

46. Define a structure with the name complex which contains rael part and imaginary part.write the functions to add, subtract and multiply two complex numbers using returning as an complex number.

47. Define a structure with the name student which contains sno,sname,marks.wap to read and n students information and print the details of the students whose marks greater than or equal to average marks of the students.

49. Write a C program using structure to create a library catalogue with the following fields; Access number, author's name. Title of the book, year of publication, publisher's name, price.

50.Write a C program to compute the monthly pay of 100 employees using each employee's name, basic-pay. The DA is computed as 52% of the basic pay. Gross-salary (Basic-pay+DA).Print the employees name and gross salary.

51. Write a function to compare two structure variables.

52 . Write a function to copy the contents of one student into another student record Of same.

53. Write a program to illustrate unions.

54. Explaining pointer to a structure variable with example.

55. Write a program to copy the contents of one file into another file.

56. Write a program to count the number of words, lines and characters in the given file.

57. Write a program to print the data of the file onto the monitor in reverse order.

58. Write a C program to reverse the first n characters in a file. (Note: The file name and n are specified on the command line).

59. Write a C program to open a pre-existing file and add information at the end of file. Display the contents of the file before and after appending .

60.Write a function to sort 1d integer array using Quick sort.

61. Write a program to implement stack operations using Arrays.

62. Write a program to implement Queue operations using Arrays.

63. Write a program to implement stack operations using Linked List.

64. Write a program to implement Queue operations using Linked List.

65. Write a program to perform Singly Linked List Operations(create,insert,delete,traversing).

66. Write a program to perform Doubly Linked List Operation(create,insert,delete,traversing).

67. Write a Function to reverse the single linked list.

68. Write a program to perform Binary Tree Operations (create, insert, delete, traversing).

69. Write a Function to combine two singly linked lists.

70.Write a program to implement circular Queue Operations.

71. Write a c program for addition of two matrices.

72. Write a c program for subtraction of two matrices

73. Write a c program for multiplication of two matrices.

74. Write a c program to find out sum of diagonal element of a matrix.

75. Write a c program to find out transport of a matrix.

76. Write a c program for scalar multiplication of matrix.

77. C program to find inverse of a matrix

78. Lower triangular matrix in c

79. Upper triangular matrix in c
80. Strassen's matrix multiplication program in c

81. C program to find determinant of a matrix

82. Write a c program to find out largest element of an array.

83. Write a c program to find out second largest element of an unsorted array.

84. Write a c program to find out second smallest element of an unsorted array.

85. Write a c program which deletes the duplicate element of an array.

86. Write a c program for delete an element at desired position in an array.

87. Write a c program for insert an element at desired position in an array.

88. C program to find largest and smallest number in an array

89. C program for Strong number.

90. C Program for Perfect number.

91. Write a c program to solve quadratic equation.

92. C program to print hello world without using semicolon

93. Write a c program for Floyd's triangle.

94. Write a c program which produces its own source code as its output

95. Write a c program to add two numbers without using addition operator.

96. Write a c program to subtract two numbers without using subtraction operator.

97. Program in c to print 1 to 100 without using loop

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98. Write a c program to convert octal number to hexadecimal number.

99. C program to convert each digits of a number in words

100. Write a c program to convert decimal number to octal number.