Basic expression programs:

1. Write a program to print "HELLO WORLD"
2. Write a program to a two numbers and multiply two numbers.
3. WAP to display your name, address and city in different lines using printf()
4. Write a program to display your subject name and marks using scanf() function.
5. Write a program to display Addition, Multiplication, Subtraction of two integer value.
6. Write a program to find the area of a circle (PIr^2)
7. Write a program to calculate simple interest using I = PRN/100 (P= Principle amount, R = Rate of Interest, N = Number of Years)
8. Write a program to calculate Gross Salary and Net Salary print Grade of employee
   Gross Salary = basic + da + hra + ma + ltc + va

BASIC = 8000	ma= 10% of basic
da = 52% of basic	ltc= 5% of basic
hra= 10% of basic	va= 10% of basic

   Net **Salary = Gross Saiary** - PF

9. Write a program to swap contents of the two variables
10. Write a program to swap contents of the two variables without use of third variable
11. Write a program to convert centimeter to meter.
12. Write a program to convert Celsius to Fahrenheit.

Conditional programs:

1. Write a program to check that accepted no is 5 or not.
2. Write a program to find that accepted value is negative, positive or zero.
3. Write a program to input 2 integers and find maximum, minimum or equal.
4. Write a program to input 4 integers and obtain maximum and minimum value and display maximum and minimum value.
5. Write a program to enter the 5 Subject marks, make total, find percentage (%) and Print Mark sheet
   Use following criteria
   if % >= 70 than print message "Distinction"
   if % >= 60 than print message "First Class"
   if % >= 50 than print message "Second Class"
   if % >= 40 than print message "Pass Class"
   if % < 40 than print message "Fail"
6. Write a c program to find the given year is leap year or not.
7. Write a program to input seconds and display no of hours, no of seconds and no of minutes.

Series programs:

1. 1 11 111 1111 11111.
2. 1+2+3+4+….
3. $1^2+2^2+3^2+4^2+…..$
4. 1/1+1/2+1/3+1/4…….
5. 1+1/4+1/9+1/16…….1/n.
6. $1^1+2^2+3^3+4^4+……..n^{n.}$
7. 1,2,27,256……..n

8. 1 2 4 7 11 16 22 29 ……
9. Write a program to print Fibonacci series in the following order.
   10, 20,30,50,80,130.
10. $1^3+2^3+3^3+4^3+$……
11. 1+3+5+7……..+n
12. 1+4-9+16-25+36…..+n^2.

Loops programs:

1. Write a c program to input name and display the name 5 times.
2. Write a program to print 1 to 10.
3. Write a program to print 10 to 1.
4. Write a program to print 1 to N.
5. Write a program to print sum of all numbers from given range of integer.
6. Write a program to generate multiplication table of accepted integer.
7. Write a program to print "4 is square of 2" from 1 to N.
8. Write a program to print all the number that is divisible by 7 between 100 and 200.
9. Write a program to Find a factorial of given no.
10. Write a program to find the number is prime or not.
11. Write a program to print all prime numbers from given range of integer.
12. Write a program to print Fibonacci series of given range.
13. Write a program for reverse number.
14. Write a program to check the number is palindrome or not.
15. Input number and display whether it is Armstrong or not.
16. Find out the sum of first and last digit of a number.
17. Write a c program to find out and print al prime numbers lying between 50 to 150.
18. Write a program that performs addition of 10 numbers using do….while loop
19. Compute the factorial of a number using recursion.
20. Write a program for display following output.

1 1 2 1 2 3 1 2 3 4 1 2 3 4 5	1 2 2 3 3 3 4 4 4 4 5 5 5 5 5	X X X X X X X X X X X X X X X	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 1 0 1 0 1 1 0 1 0 1 0 1 0 1
1 0 1 0 1 0 1 0 1 0	a a b a b C a b C D	A B B C C C D D D D	1 A B 1 2 3 A B C D	1 B B 3 3 3 D D D D
1 2 3 4 5 6 7 8 9 10	A B C D A B C A B A	1 2 2 3 3 3	1 2 3 4 5 1 2 3 4 1 2 3 1 2	5 4 3 2 1 5 4 3 2 5 4 3 5 4 5
1 1 2 1 2 3	1 * 2 * * 3 * * * 4 * * * *	* * * * * * * * * * * * * *	1 1 2 1 2 3 1 2 3 4 1 2 3 4 5	* * * * * * * * *
1 1 1 1 2 1 1 3 3 1 1 4 6 4 1 1 5 10 10 5 1				

Array programs:

1. Take N value from array and print it.
2. Print reverse of array.
3. Print only odd position data.
4. Write a program to print sum of 10 numbers using an array.
5. Count no of odd and even in the array.
6. Write a program to print sum of odd and even numbers using an array.
7. Create a program which will read the data from the user upto N and create two other arrays which will copy of odd and even.
8. Input 10 numbers and arrange the numbers in descending order.
9. Input 10 numbers and arrange the numbers in ascending order.
10. Write a program to sort an array in accesending order.
11. Write a program to read n numbers and sort the array.
12. Read 10 number in an array and find maximum from those numbers.
13. Merge two array in third one.
14. Write a program to multiply 3 X 3 two matrix
15. Write a program to addition 3 X 3 two matrix
16. Find the maximum from 3 X 3 matrix.
17. Count no of Positive and Negative values from 3 X 3 array.
18. Write a program to transpose of given matrix.
19. Write a program to find inverse of a matrix.
20. Write a program to enter five different numbers and sort in ascending and descending both. Write a program for Pascal triangle.
21. Write a program to count numbers of positive, negative, and zero elements from 3x3 matrixes.
22. Write a program for binary search.
23. Write a program for selection sort.
24. Write a program to accept values in 3*4 array and find out row total and column total of it.
25. Write a program using a two-dimensional array to compute and print the following information for the 3 sales girls and 4 items.
    a. Total value of sales by each girl
    b. Total value of each item sold.
    c. Grand total of sales of all items by all girls.

String programs:

1. Accept a string from a user accept the search character and search for it in the string. Display its position and number of occurrences.
2. Read a string and find out the following without using any string function.
3. Length of the string
4. Write a c program to a string and a character and display how many time characters appear in a string.
5. Write a program for count vowels.
6. Write a program for count no of uppercase and lowercase in the given string.
7. Write a program for convert in to upper string and lower string.
8. Write a program for Reverse string.
9. Write a program for insert a word in to the given string.
10. Write a program to converts upper case string to lower case string or lower case string to upper case string.
11. Write a program to count how many characters, no of word, lines, spaces into given text.
12. Write a program for Delete character.
13. Write a program to replace a particular character by a character in the string.
14. Merge two character string in third one.
15. Input a string and display is it palindrome or not.

16. Write a program for copying string without using strcpy.
17. String concatenation in c without using strcat.
18. Write a program that convert string to ascii.

Function programs:

1. Enter a value in main() and check whether the no is odd or even in the function Odd_Even.
2. Create Swap() function for swapping two values.
3. Write a program using function that will round a floating point value to an indicated decimal place.
   Example: the number 28.556 the value 28.56 when it is rounded off two decimal places.
4. Write a function program to find out average of first n numbers, where n is entered through keyboard.
5. Write a program using function to find out factorial of a number.
6. Write a program using function to return 1 if the number is prime otherwise return 0.
7. Write a program using function to find out maximum number.
8. Write a program using function to return 1 if the given number is palindrome otherwise return 0.
9. Write a function program to reverse string.
10. Write a function program to sort a string character by character.
11. Write a program using function to find out sum of digit.
12. Find out maximum for the array using function.
13. Write a program using function:
    x+x2/2!+x4/4!+x6/6!+……..xn/n!
14. Write a program to input a number and display MENU as below:
    MENU
    Display 1 to 10
    Display 10 to 1
    Exit
    And depending on the answer call function and perform the required operation.
15. Write a program to input 2 numbers and display a menu as drawn below:
    MENU
    Add
    Subtraction
    Multiplication
    Division
    Exit
    And depending on user's choice appropriate function to call and to perform the operation.
    Example: Users selected add then calls add () and display sum of the entered 2 numbers.

Structure programs:

1. Write a program to create a structure stud which has following member variable.
   Roll no, Name, Address, C_marks, html_marks, Pcs_marks, total.
   Write a program to insert 5 records.
2. Write a program to create a structure product which has following details:
   Code, Name, Qty, Rate Total.
   Declare array of structure to hold 5 such records and write a program to input record.
3. Create a structure called employee having following members.
   Name, ID, Salary.
   Find the person getting minimum salary assuming there are 50 employees.
4. Write a program to create a structure student which has following details.
   Roll no, Name, Address, City, Phone, Class, Div.
   Write a program to insert 5 records.
5. Write a program to create a structure called "DATA" which as following details.

Department Name Contact Person, Cellnumber, Land- number.
Create an array of 10 such records. Read the data .and also find the department, which is entered through keyboard.

6. Write a program which reads following data for given n candidates.
   Roll no, name marks in all subject, total marks, percentage marks, result and class.
   Use structure in program.
   Passing rules: 35 marks minimum in each subject.
   Class rules: 60%-100%: First class, 50%-59%: Second class, rest all Pass class.
   In a program declare following structure member
   Name, code, age, weight and height. Read all members of the structure for 100 persons and list of persons with all related data whose weight > 50 and height >40 and print the same with suitable formate and title.
7. Create a structure called "emp_data" which would have the following members.
   Emp_name which stores name of the employee, emp_bsic which stores the basic salary emp_da which stores the amount of dearness allowance paid to the employee.emp_total which is the sum of employee's basic salary and dearness allowance.
8. Create an array of 10 such records and read the data for emp_name and emp_basic from the keyboard. Compute emp_da which is 90% of basic salary and emp_total.
   Display all records.
9. Define a structure containing details of a Hotel like hotel name, address, number of rooms charges. Create an array of 10 Hotels and get their details from the user. If the room charges entered by the user is equal to the room charges of a Hotel then display all the details of that Hotel.
   Define a structure called Item with the following members:
   Item code
   Item name
   Price
   Create an array of five such elements. Modify each element with an increase of 10% in the price.
10. Write a program to create a structure student which has following details:
    Roll_no , Name, PCS,C ,HTML,total ,average.
    Write a program to input Roll_no, Name, PCS,C and HTMl.calculate and print total and average.
11. Define a structure Employee with members employee name, department number, date of birth, joining date, basic salary, dearness allowance, income tax, number of days present and net salary.
    Create an array of 10 employees. Get all their details from the user. Calculate the net salary for each employee.
    Net salary= (basic salary dearness allowance house rent)-(provident fund +life ins+income tax)*number of days present.
12. Define a structure called cricket that will describe following.
    Player name, team average, and batting average. Using cricket, declare an array player with 50 elements and write a program to read the information about all the player and print teamwize list containing names of players with their batting average.

Pointer programs:

1. Write a program to find length of string with use of pointer.
2. Swap 2 values.
3. Write a program for sorting elements using pointer.
4. Write a program using pointers to read in an array of integers and print its elements in reverse order.
5. Using pointers, write a function that receives a character string and a character as arguments and deletes all occurrence of this character in the string. The function should return the corrected string with no holes.

File management:

1. Write a c program to open a file and write some text and close its.
2. Write a c program which writes string in the file and reads string from file.
3. Write a program to copy the content of one file into other.
4. Two files Data 1 and Data 2 contain sorted list of integers. Write a program to produce a third file DATA which holds a single sorted, merged list of these two lists. Use common line argument to specify file name.
5. Write a program to read n integer number from keyboard and store them in to a file ALL.TXT.
6. From the file ALL.TXT, separate even and odd numbers and stores them in to files Even.Txt and Odd.Txt respectively. Display contents of all three files.
7. Write a program to input a string till users press "*" and store the string in a FILE on hard disk.
8. Read text file given from command line and print the total number of characters in each line and total number of lines in a file.
9. Write a program which opens two files:
10. Input file:program should read student's name and marks for 500 students in two subjects from Input file.
11. Output file: result should be written in this file in following format:
    Name of student, marks in two subjects, total marks and result. Passing standard is 40 marks in each subject.
12. Write a program to read data from keyboard write in to a file called input.txt again read the same data from the input.txt file and display on the screen.