

SSN COLLEGE OF ENGINEERING (Autonomous)
(Affiliated to Anna University, Chennai)
DEPARTMENT OF CSE
UCS 1211 PROGRAMMING IN C LABORATORY
A7: Handling Files in C

=====

Learning Outcome :

To be proficient in handling files in C

- a) Text file handling
- b) Sequential access and formatted file I/O Operations
- c) Random access
- d) Structured I/O with files

To learn modular and incremental programming.

To write multi-file program with user defined header files

To handle command line arguments

Write the algorithm to solve the following problems (2,3,4,7,8) and implement them in C.

1. Create a file called *input.txt* with 5 lines of text. Write a C function that reads the text file given as command line argument and writes the file contents on the console. Save this function in a header file *input.h* so that the header can be included in applications that require reading and displaying the contents from a file.
2. Write a function that counts the number of characters, digits, words and lines in a text file. Write these counts in a text file with description. Input and out text file names must be given as command line arguments.
3. Write a function that reads a given text file; searches for vowels and displays the contents in stdout stream after replacing them with the character 'z'.
4. Write a function that takes input text file name, output text file name, *middle*, and *offset* as parameters and copy the contents of input file from position *middle - offset* to position *middle + offset* into a output text file *copy.txt*.
5. Read the following contents from the console and write it to a file.
 "This is ssn college of engineering at Chennai. Chennai is otherwise called as singara Chennai"
Replace all occurrences of the word "Chennai" with "Tamil Nadu". Use library functions *fgetpos()* and *fsetpos()*.
Output: Final content of the file:
 "This is ssn college of engineering at Tamil Nadu. Tamil Nadu is otherwise called as singara Tamil Nadu"
6. Create a telephone directory and perform the following operations: insert, update, delete, search, and append telephone details of an individual into the telephone directory. Use a structure to represent the telephone record and have necessary attributes such as *name*, *address*, *phonenum*
7. Solve Programming Problem 13.18 of textbook Byron Gottfried - Page no. 13.40. (Optional)

~~~~~

If you try to solve problems yourself, then you will learn many things automatically.

Spend few minutes and then enjoy the excitement of problem solving.

~~~~~