

UCS 2201 Fundamentals and Practice of Software Development

A7: File handling in C

Batch 2021-2025Tir SEEE

Academic Year 2021-2022 Even

Dr. R. Kanchana & Dr. J. Suresh

=====

Learning Outcome :

To be proficient in handling files in C

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

To write multi-file program with user defined header files

To handle command line arguments

Best Practices

To learn modular and incremental programming.

Function prototyping

.....

Write the algorithm to solve the following problems (2,3,4) and implement all the programs in C. (CO7, K3, 1.3.1, 1.4.1, 2.1.2, 2.1.3, 2.4.3, 3.2.2, 3.4.3, 4.1.2, 4.2.1, 5.2.2, 13.2.1, 13.3.2, 13.4.2, 14.2.1, 14.2.2)

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. 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*.
5. Write a complete C program that can be used as a simple line-oriented text editor. This program must have the following capabilities:
 - a) Enter several lines of text and store in a data file.
 - b) List the data file.
 - c) Retrieve and display a particular line, determined by line number.
 - d) Insert n lines.

- e) Delete n lines.
- f) Save the newly edited text and end the computation.

~~~~~  
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.  
~~~~~