

LAB 13:**File Handling****1. Scope of Knowledge:**

- Understand stream concept
- File I/O introduction
- Working with text file
- Working with binary file
- File I/O functions: `fopen()`, `fread()`, `fwrite()`, `fclose()`,...

2. Materials/Softwares/Tools:

- Visual Studio Code

3. Coding Convention:

- All identifiers must be in English and lower case
- Follow the valid identifiers naming rules in C
- Tab is 4 characters
- Curly braces must be aligned
- Statements in curly brackets must be indented by 1 tab

4. Exercise:**Exercise 1:**

Write a program to manipulate files with following:

- Import the list of students and then save the list of students in the file
- Display information of all students from file

Requirements: Use struct to store student information and display in menu-style functions (input and display menu items).

Exercise 2:

Write a C program to open a file named test.txt, write the content to the file and then convert it to uppercase.

Exercise 3:

Write a simple C program to read the contents of a file. Your program needs to check if the file exists and check the EOF (end of file) condition.

Exercise 4:

Suppose there is a file data.txt that stores 10 integers (1, 5, 7, 9, 8, 0, 4, 3, 15, 20). Read these integers from “data.txt” and add to an array then sort this array in ascending order. Finally, write the sorted array to the file “sorteddata.txt”.