**Labsheet 11**

**Files**

1. Write a program which contains only two calls to **fprintf()**, one which writes to **stdout,** and one that writes to **stderr.** Compile and run the program. Both messages should appear on the screen.
2. Write a program which takes two file names as command line arguments, and copies the contents of the first file into the second. The program should use **argv[1]** as the name of the file to open for reading, and **argv[2]** as the name of the file to open for writing. It should then read from the first file one character at a time using **fscanf(),** and write each character to the output file using **fprintf**().
3. Modify the last program to use **fgetc()** to read characters from the input file and **fputc()** to write them to the output file.
4. If you did not do so before, add some error checking to your program. Check to make sure that **fopen()** did not return NULL before you access the files. Also, be sure to close both files when you are done and check the return value of **fclose().**
5. Modify your program so it now takes several files as command line arguments. The first argument (i.e. **argv[1]**) is the name of the output file. The rest of the arguments are the names of the input files.

The program should first open the output file in append mode. Then, it should open the input files one at a time, and copy their contents into the output file. Be sure to close all the files when you have finished.

**Pointers to Pointers**

1. Implement the following function:

**Int AllocateDouble( double \*\*ppd);**

The function must use **malloc()** to allocate enough memory to store a double. Return the address of the new memory through the parameter. To do this, assign the address to \***ppd**. Use the function return value to return **0**  if **malloc()**  returned **NULL** and 1 otherwise.

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