System Programming and System Calls for File Management (UNIX /Windows)

1. Write a C program that finds a file in a file-tree starting from a given directory. The name of the file for which we are searching for, as well as the name of the starting directory should be read from the command line. Optionally, the name of the file can be specified as a pattern using the '*' character.

2. Write a C program that deletes a directory with all its subfolders. The name of the directory should be read from the command line.

3. Write a C program that takes a file name as a command line parameter and sorts a set of integers stored in the file (use any sorting method). You can assume that the file will always be there in the current directory and that it will always contain a set of integers (maximum no. of integers is 1000). The sorted output is written to the display and the input file is left unchanged. Compile the C file into an executable named "sort1" and name the C file sort1.c.