CS307

Programming Assignment (PA)4 Report

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In this programming assignment, the program start with reading a file called "database.txt" and stores the data in it into a dynamic list of people (arrays of strings array). After reading database and stores it, corrector () function called with passing current root. Then, it traverses the subdirectories and files reachable from the current working directory (the directory that contains the executable) the root directory. The files from the current root are read in order. For each file it encounters with a ".txt" extension, it try to open the file and try to read it word by word (with the fscanf () function.). If a word matches a name in the list of people, the program determines the position and length of the word in the file, and replaces it with the appropriate gender title (e.g. "Mr." or "Ms.") and surname of the person from the list. The program then closes the file and moves on to the next file. After all the files have been processed, the program terminates.

In this program, fseek () is used to move the file position indicator for a stream to a specific point in the file, and ftell () is used to find the current position of the file position indicator. The combination of these two functions is used to update the contents of a file by overwriting specific sections of it with new text. For example, fseek (Fb, location- 4, SEEK_SET); moves the file position indicator for the stream Fb 4 bytes back from its current position, and then fputs (gender, Fb) writes the string stored in gender to the stream at the new position of the file position. The use of ftell () (ftell () is a function that returns the current value of the file position indicator) for the file associated in this program is to find the length of a specific word in the file so that the program knows how far to move the file position indicator when updating the file