

CS 307 PA4

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There are two main functions in my program which are `openFiles` and `correctFile`. My program assumes that there is a file called "database.txt" in the directory ".". Firstly, it opens this file then when a file opens, my program checks the correct versions of surname and gender from this database.txt file.

OpenFiles function is iterating in the current directory. In each iteration it checks whether the extension of the file is .txt. If the current file is a txt file then it opens that file and call the function named as `correctFile`. Otherwise, it checks whether the current file is a directory. If it is a directory then it is recursively calling the `openFiles` function with the new directory. If the current file is not a directory or a txt file `openFiles` function does nothing.

IMPORTANT NOTE: In every directory, there are two paths such as '.' and '..'. The first '.' path is showing the current directory. If we call this directory in a recursive manner, then we will end up with infinite recursions. Also, the second path '..' is showing the parent directory. If we call this directory in a recursive manner, we will end up with infinite recursion as well. To avoid infinite and unnecessary recursion if the current file is one of these two paths, we will skip.

CorrectFile function is reading current file word by word. When a word is read from the current file, the program reads the database.txt file from the start by using `seekg()` command. And checks whether current word is in the database.txt. If current word is in the database.txt file. Then my program rewrites title and surname of the user in the current file by using `fputs()` command.

We know that the name is written correctly in the current file. The start position of the title in the current file is 4 steps behind the start position of the name. The start position of the surname is length of the name + 1 in front of the start position of the name. I used this information when placing the correct forms of the title and surname.