

**Ege Aktemur 28080**

**4/01/2023**

## **Programming Assignment 4 Report**

In this report I will firstly explain my program flow. Then I will give the details about it.

### **Program Flow**

First read the people's information from the database.txt using this steps:

1. Read the file line by line.
2. Separate line to gender, first name and surname.
3. Create a Person object with these properties.
4. Add this Person to People global array.

Secondly, Start the corrector function from ./ (directory of the program). Open path to DIR pointer in order to iterate through all of the files and folders in that directory by getting that entry as an dirent pointer.

When the program gets a file or a folder there are 3 possibilities.

1. If it is . or .. or ./database.txt:
  - a. Do nothing.
2. If it is a .txt but not database.txt:
  - a. Read the file line by line if it is possible.
  - b. While reading the file line by line iterate through People array each time and if someone's first name matches the word:

- i. Move the file pointer to 4 characters behind using `fseek()` and put the person's gender at that location using `fputs()`.
  - ii. Move the file pointer to the end of the person's first name using `fseek()` and put the person's surname at that location using `fputs()`.
3. If it is a folder:
  - a. Try to open the folder.
  - b. If it can be opened, call the function recursively.

After the corrector function finishes (Corrector function can't read any more files) end the program.