
DSE501 : Introduction to Data Science Tools
Prepared by : Prof. Dr. Hasan DAĞ
Date Assigned : 15.11.2023.
Date Due : 21.11.2023 by midnight (23:45)
Exam Type : **Hwk 2**

Program Statement: Write a program that reads personal data and address data for the instructors from a data file (max. 20 records, data belonging to instructors) named as **DSE501_Hwk2_Instructors.txt** and inserts them into a data structure made up of **struct data type-based array in a sorted manner** with respect to the age. Then print the whole data to the screen. Reading data from a file line by line, breaking every line into pieces, inserting the pieces to the relevant data structure, sorting the data, and finally printing the data shall all be done by a separate function. That is, your main program is expected as short as possible. To this end, you are required to develop a library file (.h file) called **NameLastname_DSE501_Hwk2_Library.h** as well.

Please name your Homework2 code file as **NameLastname_DSE501_Hwk2.c** (failure to do so will cause a deduction of 5 points) and upload both the library the file and your homework file as a zipped file. to learn.khas.edu.tr

The content of a sample **DSE501_Hwk2_Instructors.txt**
(Name, Last-name, Age, Gender, Street Name, Street Number, City, Country)

Hasan, Dag, 59, M, Cibali, 1, Istanbul, Turkey.
Reiner, Cruetzburg, 68, M, Ernst-Reuter Platz, 10, Berlin, Germany.
Jane, Scharz, 34, F, Jung Street, 23, Chicago, USA.
...
... (more lines, total will be <= 20 lines)
..
Klaus, Tomy, 21, M, Blume street, 98, Potsdam, Germany.

Notes:

1. This homework requires a good understanding of the topics below.
 - a. Strings and character manipulation,
 - b. Arrays
 - c. Files
 - d. Struct data types.
2. Submission of the homework does not guarantee a grade, everyone is expected to defend verbally, or in a written way (such as Quiz) how, and why certain pieces of code (randomly selected by the instructor) used.
3. Any kind of act of plagiarism (borrowing from your friend, having homework is done by ChatGPT, or having someone do the homework for you etc.,) **is going to be dealt with formal misconduct procedures.**