

Name/Surname:

Date:

Number:

EHB208E

**Data Structures & Programming,  
2<sup>nd</sup> Homework**

**Autumn 2023**

- 1) Write a "C" program, which inputs and then saves school numbers, names, surnames, and into the student automation system from the given text file (input.txt). Each **record** is stored in memory by using a separate linked list, as shown in Figure 1.
- (A) Print the student names in ascending order by the date of birth to the "output.txt" file.
- (B) Print the school numbers, sorted in ascending order according to faculty codes (**Figure 2**), into the "output.txt" file.

Sorting information will be stored on the stacks implemented by linked lists. You can use as many stacks as you want.

**The content of "input.txt" should be (*we will test your code by different input.txt files*):**

040160811;Ali Pehlivan;2005

040180224;Mehmet Ali Sarsıl;2000

820190040;Esma Sultan;2001

150190207;Selami Kılıç;2002

**The content of the "output.txt" file should be:**

Student names in ascending order by birthday:

Mehmet Ali Sarsıl;2000

Esma Sultan;2001

Selami Kılıç;2002

Ali Pehlivan;2005

School numbers by the faculty codes in ascending order:

040160811

040180224

150190207

820190040



Figure 1. School number

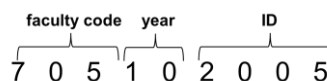


Figure 2. Sample linked lists

**Note 1:** Turnitin can be used to check for any cheating. Please submit your own work!

**Note 2:** The **text** in the output files and **names of the output files** should be correctly typed. Not even extra spaces and characters are allowed. In such cases, you may not get any grade.

**Note 3:** "C" language code is expected. **C++ codes will be graded out of 50 points.**

**Note 4:** A single "C" code file is allowed to upload Ninova.

**Note 5:** Your code should be properly commented on. Uncommented code will get partial credit.

**Important: You need to do your assignment alone. Code sharing among students or using code from any other source is not allowed.**

Upload your project's C source files to "EHB208E Homework" field in your Ninova system.