

UBI 503 Data Structures and Algorithms

7th Homework

Assignment Date: 8.1.2021

Due Date: 15.1.2021

From: C How to Program (7th Edition), Paul Deitel and Harvey Deitel, Prentice Hall, 2013.

12.8) (Slightly Modified) (*Merging after Inserting into Ordered Lists*) Write a program that inserts 5 random integers between 0 and 50 in order in one linked list and 5 random integers between 0 and 100 in order in another linked list. The program must merge these two linked lists into a single ordered list of integers. You may define a function called `merge` which should receive pointers to the first node of each of the lists to be merged and return a pointer to the first node of the merged list. **(100 points)**

Important Notes:

1. All source codes and related homework reports should be submitted via [Ege Ders](#) platform: Derslerim → Veri Yapıları ve Algoritmalar - 430882-4 → Hafta 9: Data Structures (Part I: Linked Lists and Stacks) → Homework 7. Please also send a copy of your files to sinem.getir@ege.edu.tr in the format of `ogrenci_no_odev_no.zip`
2. Do not forget to include appropriate comments in the source codes. Hence the grader can easily understand the program during his/her assessment.
3. Write the programs in a simple and straightforward manner by considering structured programming.
4. Each report should include the printout of the related source code and two or more screenshots (depending on the illustration requirements) which exemplify execution of the programs.