

Homework #4
Data Structure (501324-3)
2022-2023 1st Trimester

Due: Thursday November 10, 2022, 11:59 pm via Blackboard

Required:

- Answer all the following questions.
- Implement and show the output of each linked list question.
- In each coding exercise, add a comment `// your name // your id.`
- NO homework will be accepted without this comment.
- Put everything in one PDF file and upload it.
- NO LATE homework or excuses will be accepted. I gave you enough time to work on this homework.

Question 1:

Draw the Binary Search *Tree* (BST) that would result from the insertion of the following integer keys:

14 58 18 10 99 52 33 69 74 17

- **Insert 21 into the resulting BST**
- **Delete 52 from the BST**

Question 2:

Build the Minheap for the following items in the array:

11	54	10	2	9	5	8	3	9	0	6	1
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- **Insert 4 into the resulting Minheap**
- **Delete 5 from the resulting Minheap.**

Question 3:

Given the following keys:

90 13 3 77 21 1

- **Sort these items using bubble sort.**
- **Sort these items using selection sort.**