CS5800: Algorithms — Virgil Pavlu

Homework 7

Name:
Collaborators:

Instructions:

- Make sure to put your name on the first page. If you are using the LaTeX template we provided, then you can make sure it appears by filling in the `yourname` command.

- Please review the grading policy outlined in the course information page.

- You must also write down with whom you worked on the assignment. If this changes from problem to problem, then you should write down this information separately with each problem.

- Problem numbers (like Exercise 3.1-1) are corresponding to CLRS 4th edition. While the 3rd edition has similar problems with similar numbers, the actual exercises and their solutions are different, so make sure you are using the 4th edition.

1. (30 points, Mandatory) Write up a max two-page summary of all concepts and techniques in CLRS Chapter 10 (Elementary Data Structures)

Solution:

2. (30 points, Mandatory) Write up a max two-page summary of all concepts and techniques in CLRS Chapter 12 (Binary Search Trees)

Solution:

3. (10 points) Exercise 10.1-2.

Solution:

4. (10 points) Exercise 10.1-5.

Solution:

5. (10 points) Exercise 10.1-7.

Solution:

6. (10 points) Exercise 10.1-8.

Solution:

7. (10 points) Exercise 10.2-2.

Solution:

8. (10 points) Exercise 10.2-4.

Solution:

9. (10 points) Exercise 10.3-2.

Solution:

10. (10 points) Problem 10-1.

Solution:

11. (10 points) Exercise 12.2-5.

Solution:

12. (10 points) Exercise 12.2-7.

Solution:

13. (10 points) Exercise 12.3-3.

Solution:

14. (Extra Credit) Problem 12-3.

15. (Extra Credit) Problem 10-2.

16. (Extra Credit) Problem 14-6.