William Nguyen

CS 143 w/ Dr. Taub

5/21/16

HW 8

From your text book, complete the following end of chapter, "Self Check" questions:

Chapter 13: 2, 3, 5, 9-13, 16, 18

Chapter 14: 1-7, 11, 12, 13-15

These are all short answer questions with no programming. Please turn them in, ON PAPER, in class, at the beginning of class, on Thursday.

CH 13:

2. E

3. Sequential is used because more advanced searches require you to implement comparables.

5.Collections arranges strings alphabetically with capitals before lowercase words. You can

change this by creating a new comparator and feeding it a different standard for the order.

9.O(logN)

10.O(N)

11.O(N^2)

12.O(N^2)

13.O(N)

16.Runtime seq search on unsorted array:

the size of the array, as if it goes through entirely and doesn't find the match it needs, it will end.

so O(N)

18.6

CH 14:

1.C.

2.Stack of papers/books, or a model of a line of individuals.

3.Push adds a new value to the top of the stack, and pop takes the last value that you put into the stack.

4.Add puts another value at the end of the queue, whereas remove takes something from the beginning or what was first added.

5.first 3,2,1 last

6.first 1,2,3 last

7.Queues are actually LinkedLists. so it would be

Queue<Integer> q = new LinkedList<Integer>();

11.You would have to work down the queue to the halfway point with a loop or manually popping the values.

12.They are a lot more efficient for specific situations as they take very little resources as an ADT.

13.you are how

14. 10, 7, 5, false, 2, 3, 8, 3

15. 2, 10, 10, 4, 6, 6, 3