Data Structures 11/7/2016

0145-343-001

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ANNOUNCEMENTS

* Next HW: <http://home.adelphi.edu/~siegfried/cs343/343hw8.html> (inventory using a binary tree) – due November 24th

Notes:

PowerPoint: <http://home.adelphi.edu/~siegfried/cs343/343l6.pdf>

Topic: Sorting

* We sort items with a key that is a unique representation of the item in question
* Collections that are sorted can be easily searched
* Efficiency of an algorithm: expressed by ***O***notation. This function gives us an upper bound on the efficiency of an algorithm
* Bubble sort – Hungarian Dance Video
* Bubble Sort – best case scenario: everything is already in order (we have to go through collection once to check this), so the best case is ***O***(n). The worst case is (n-1)2 which is ***O***(n2).