

COP 4530 (Fall 2011)
Recitation 10 (4th & 7th November, 2011)

Objective:

1. Discuss about pros and cons for choosing a data structure for a particular problem.
2. Take quiz 9

A sample problem:

Consider a simple spam (junk email) filter as described below. We keep track of senders (say, the *from* field in the email) whose messages should be tagged as spam. Initially, no one is listed as a spammer. Each time the user marks an email as spam, we record that sender as a spammer. Each time we receive an email, if the sender has been recorded earlier as a spammer, then the message is tagged as spam. Decide on a suitable data structure, from among those that we have discussed in class, to store the records of spammers. State any reasonable assumptions that you make, and justify your answer.

Discuss complexities of various data structures:

Data Structures	Insert	Delete	Search	Memory Requirement
Vector				
Sorted Vector				
Singly link list				
DLL				
Deque				
BST				
AVL Tree				
Hash				