

CompSci 6

Programming Design and Analysis

Mar 30, 2010

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Announcements

- Exam 2 is now on Thursday, April 8
- Reading for next time: Chap. 14.1-2,6-8
- Reading quiz due next time
- Today – APTs with Sets and ArrayList
- Next class – Comparators
- April 6 – will review
- Hand out old exams today to allow more practice time before the exam

Collections: ArrayList vs Set

- ArrayList
 - directly access an item
 - keep items ordered
 - Can have duplicates of items
 - What are operations on an ArrayList?
- Sets
 - Keeps items unordered
 - No duplicate items
 - Easily remove duplicates
 - What are operations on a Set?

Using Both ArrayList and Sets

- You may want to use a set to get rid of duplicates, then put the items in an ArrayList and sort them!
- Using TreeSet items are stored in sorted order

Classwork today

- Thesaurus
 - Entries of synonyms
 - Entries with two or more common words merge
 - Example:
 - “fa so la” “fa ti do” “la fa me”
 - Results in “fa so la me” and “fa ti do”
 - Sorted is “do fa ti” “fa la me so”

More on Thesaurus

- Start by snarfing
- Write other methods:
 - sToSet - string to set of Strings (words)
 - collToS – converts set of words to a String
 - numInCommon
 - union

APT method - edit

- Convert to ArrayList of sorted Sets
- Keep merging entries until no more merges
 - For every pair, if have 2 or more in common
 - Merge the two
- Convert list of sets to array of Strings
- Sort the entries in alphabetical order