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