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