

# CompSci 6

## Programming Design and Analysis

Mar 30, 2010

Prof. Rodger

## 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