CompSci 6
Introduction to Computer Science

November 8, 2011

Prof. Rodger
Announcements

• No reading or RQ
• Assignment 5 due Thursday
• New APT out Thursday – one APT
• Practice Test problems out – will go over on Tues. Nov 15
• Prof. Rodger no office hours this week
• Today
  – Finish example from last time
  – More on sort options
  – Regular Expressions
More on sort

• Import operator
  – fruit = [("pear",5), ("apple",9)]
    • fruit = sorted(fruit)
    • fruit.sort() OR fruit = sorted(fruit)
  – arguments
    • key=itemgetter(0)
    • reverse=True
Regular Expressions

• Part of the compiler process
  – Can write a regular expression for each type of word in a programming language
  – Example
    • Key words – if, else, elif, while
    • Integers – 456, 78, 2, -56
    • Float – 3.14, 7856.2345
    • String – ‘word’, “this is a phrase”
    • Special symbols – [ ] + %
Regular Expressions

• a - a
• a* - a repeated 0 or more times
• a+ - a repeated 1 or more times
• a? – a 0 or 1 time, so a is optional
• ^ - match at the beginning of the string
• $ - match at the end of the string
• . – matches anything
• [abc] – match a, b, or c
• [a-z] – match any character from a to z
• [^a] – match any character but a
More on regular expressions

- | - or
- \b - word boundary
- \s - whitespace character
- \d – match any digit
- When using backslashes – must use r in front of string
Regular expressions with re

- import re
- re.sub() – substitute
- re.compile() – create a pattern
- re.findall()
- See examples