



## Introduction to Java Programming

### Sheet # 21: Sets and Maps

- ▶ **Textbook: Introduction to Java Programming and Data Structures, Comprehensive Version (12th Edition)**
- ▶ **This sheet covers chapter 21 “Sets and Maps”**

Dr. Mohammed El-Said

#### ➤ Check Point Questions:

Review the questions at the following URL:

<https://liveexample.pearsoncmg.com/checkpoint12/Chapter21.html>

#### ➤ Solve the following Programming Exercises from the textbook (pages 836-838)

21.1                      21.6                      21.7                      21.10                      21.14

#### ➤ Mini Project: Counting the Occurrences of Words

Rewrite Listing 21.9 to read the text from a Web page. The URL for the Web page is passed as a command-line argument. Words are delimited by whitespace, punctuation marks (,;.:?), quotation marks ('"), and parentheses. Count words in case-insensitive fashion (e.g., consider Good and good to be the same word). The words must start with a letter. Display the output in alphabetical order of words with each word preceded by its occurrence count. Here is a sample run: (Please see page 551 for how to read data from a URL.)

```
Administrator: Command Prompt
c:\>java Exercise23_08 http://www.cs.arnstrong.edu/liang/Lincoln.txt
Display words and their count in ascending order of the words
7      a
1      above
1      add
1      advanced
1      ago
1      all
1      altogether
6      and
1      any
3      are
1      as
2      be
1      before
1      birth
1      brave
1      brought
2      but
```

*With our best wishes;*