



Introduction to Java Programming

Sheet # 12: Exception Handling and Text I/O

- ▶ Textbook: Introduction to Java Programming and Data Structures, Comprehensive Version (11th Edition)
- ▶ This sheet covers chapter 12 “Exception Handling and Text I/O”

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➤ Check Point Questions:

Review the questions at the following URL:

<https://liveexample.pearsoncmg.com/checkpoint12/Chapter12.html>

➤ Solve the following Programming Exercises from the textbook (pages 514-519)

12.2	12.3	12.5	12.6	12.9	12.11
12.14	12.15	12.19			

➤ Mini Project: Baby Name Ranking

(*Baby name popularity ranking*) The popularity ranking of baby names from years 2001 to 2010 is downloaded from <URL>www.ssa.gov/oact/babynames/</URL> and stored in files named **babynameranking2001.txt**,

babynameranking2002.txt, ..., **babynameranking2010.txt**. Each file contains one thousand lines. Each line contains a ranking, a boy's name, number for the boy's name, a girl's name, and number for the girl's name. For example, the first two lines in the file **babynameranking2010.txt** are as follows:

1	Jacob	21,875	Isabella	22,731
2	Ethan	17,866	Sophia	20,477

So, the boy's name Jacob and girl's name Isabella are ranked #1 and the boy's name Ethan and girl's name Sophia are ranked #2. 21,875 boys are named Jacob and 22,731 girls are named Isabella. Write a program that prompts the user to enter the year, gender, and followed by a name, and displays the ranking of the name for the year. Here is a sample run:

<Output>

Enter the year: 2010 <Enter icon>

Enter the gender: M <Enter icon>

Enter the name: Javier <Enter icon>

Javier is ranked #190 in year 2010

<End Output>

<Output>

Enter the year: 2010 *<Enter icon>*

Enter the gender: F *<Enter icon>*

Enter the name: ABC *<Enter icon>*

The name ABC is not ranked in year 2010

<End Output>

You can download the files from

www.cs.armstrong.edu/liang/data/babynameranking2001.txt

www.cs.armstrong.edu/liang/data/babynameranking2002.txt

...

www.cs.armstrong.edu/liang/data/babynameranking2010.txt

Hint:

Create two two-dimensional arrays to store names:

```
String[][] boyNames = new String[10][1000];  
String[][] girlNames = new String[10][1000];
```

boyNames[0][0] is the name rank #1 for year 2001.

boyNames[9][10] is the name rank #11 for year 2010.

girlNames[3][8] is the name rank #9 for year 2004.

girlNames[5][342] is the name rank #343 for year 2006.

With our best wishes;