2012/11/27 Software Studio Lab7

Honor Code
Any cheating will be handled seriously in compliance with the university rules. All assigned work is expected to be individual, except where explicitly written otherwise (e.g., term project). You are encourages to discuss with your classmates; however, what you hand in should be tour own work.

Data Visualization (Programming/technical work 85%; Visualization design 15%)
Write a program to visualize text or language data as two visual representations, Word Cloud and Bar Chart. See the following figure for a screenshot of this program. A simple JAVA Swing GUI, **SamplePanel.java,** has already been completed, and can be downloaded from the LMS. You still need to implement a number of things to make the system fully functional. You will need to program an Action Listener for handling mouse events. You need a "LOAD" button for choosing files to read, and a large text panel for showing the content of the file. You may also need a "DRAW" button to trigger the visualizations, and a "SEND" button to update them with newly added words.

Use Word Cram (http://wordcram.org) as the basis for constructing word cloud. You can download its API from https://github.com/danbernier/WordCram/downloads. After downloading Word Cram, import its libraries (cue.language, jsoup-1.3.3, WordCram) to the project. Draw a word cloud by placing words sequentially, from the most to the least frequent words. Also, draw a bar chart to show the top 15 most popular words and the number of times they occur.

Note. If you load Chinese text file, the paragraph should be segmented in advance. However, if the text file is in English, it doesn't need to be segmented, as blanks are natural and visible delimiters between words in English.

(segmented means: "我是學生" >> "我 是 學生")

TA will use the text file we provide to test the program, the text file has already been segmented.

注意事項：

1. **Deadline: 2012/12/09 23:59 (12/10 00:00~23:59 交者，成績*0.8)**
2. 交作業時，請按照以下格式標示清楚：

   請在資料夾放入**整個 project 資料夾、export 後的.jar 檔、Readme.txt**
   再將資料夾壓縮成"**學號_Lab.zip**"，
   將壓縮檔上傳至 http://lms.nthu.edu.tw/ 軟體實驗的**作業**區
3. 每個.java 檔內，第一行請用註解加上學號、姓名及題號。
4. 程式碼務必要有**註解**，說明你解題的方法。(此項也列為評分標準之一)
5. Readme 請包含執行步驟(條列式)、遇到的困難及解決方法。