# **CS225L Lab 11: Files & Exception Handling**

**Learning Outcomes**

* ***Familiarization with browsing Java documentation and Googling***

**Lab Activities**

For this lab, we will be writing a statistics processor. In particular you'll write a Java program that satisfies these requirements:

1. The program shall allow the user to select a file with a .csv extension from his or her file system.
2. The program shall read a CSV (comma separated values) file with two columns.
3. In each row, the first value will be an arbitrary string without commas, and the second will be a decimal number (i.e. a double).
4. The program shall ignore rows that do not contain valid numbers in the second column. (A valid number can be parsed using Java's Double.parseDouble().)
5. The program shall compute summary statistics of the numbers:
   * The count of valid data rows
   * The count of *invalid* data rows
   * The sum of the numbers
   * The average of the numbers
   * The minimum and maximum numbers
6. The program shall display all of these computed statistics.
7. The program shall also display the associated strings (the first column values) with the minimum and maximum values.
8. Finally, the program shall display all of the valid data in sorted order, including their associated strings.

In order to facilitate automation in grading, the program must contain a few specific method signatures:

1. The program shall have a method with the header "public static File pickFile()" to satisfy the first requirement.
2. The program shall have a method with the header "public static void processFile(File csvFile)" to initiate the rest of the processing.

See the section below for the submission instructions.

Sample data: [sample.csvPreview the documentView in a new window](https://erau.instructure.com/courses/58139/files/11350803/download?verifier=3n9EyVrQs0V8Ks9MFBp3VUpCYKwbIlXDbV7z2E2P&wrap=1)

**Post-Labs**

You have a choice for your submission: either submit the code meeting the guidelines above, OR take quality notes on the lab instruction given in your section.

If you choose to submit code, only submit the new .java file(s) you create (no test data, .class files, etc.).

If you choose to take notes, you must do so in an editable format. The assignment uploads are restricted to preferable types: LaTeX source, plain text, [Markdown (Links to an external site.)Links to an external site.](https://daringfireball.net/projects/markdown/syntax) plain text (.md), or a Word document. Your notes must emphasize the main topics of the lab-- file I/O & exception handling. You should also consider the order in which parts of the program are built, and any "gotchas" that are encountered along the way. Consider the writing style of past lab documents, as any submitted notes may be used to compile lab instructions for the future.

Leave feedback in your submission comments:

1. What lab section did you attend? (Section # or day of week)
2. What did you like about the lab? What did you dislike?
3. What would you change about this lab to improve it?

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Total Points from Lab 11: **30 Points**

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