

Advanced Java

Lab Project: 03

Points Possible: 125

Due Date: Oct. 12, 2016 (11:59pm)

Objective:

Use Java 8's Stream and Lambda Expressions to process a CSV file.

Grade Table:

Task	Points
Programming guidelines are followed and report is created	25
Program reads the data file into data structure	25
Program uses a stream method to find the average price of the CPU's	25
Program uses a stream method to find the highest and lowest priced CPU's	25
Program uses a stream method to calculate and display the best <i>value</i> CPU	25
TOTAL POINTS	125

Instructions:

The goal of this project is to create a command line program that opens and reads the provided data file ("Project03Data.csv") into a List or Array data structure. Then, using Java 8's Stream methods finds or calculates the below values. These values should be displayed to the command prompt.

- average price of CPU's
- highest priced CPU
- lowest priced CPU
- best value CPU (performance / price)

Note that some of data in the CSV file is incomplete and has a *NA* listed for price. Your program will need to exclude these CPU's from consideration.

Example:

Note that different input data was utilized - your results will be different.

```
CPU Compare Program:
Average price: $282.99
Highest price: $478.00
Lowest price: $189.99
Best value: Wombatel i9-4200K @ 3.52GHz
```

Turn In:

1. Create an executable jar file as demonstrated in class (see the class Blackboard site for notes) that contains your source code and class files named "project03LastName.jar"
2. Create a short documentation report (doc, docx, or pdf) containing screen shots that either demonstrate your program meeting the specifications in the above grading table or show the error messages that might occur when attempting to compile or execute your program. Include a brief description (1 paragraph is fine) documenting your work and describing the functionality of your program. If there are errors, discuss them (what is your best guess as to what is going wrong). In the report, include the version of your Java Compiler (at the command line run "javac -version") and any other development tools you used.
3. Submit the resulting jar file and documentation report to Blackboard

If you have any questions email me early and often at: george.patterson@tulsacc.edu