

# Advanced Java

Lab Project: 04 Points Possible: 125 Due Date: Oct. 26, 2016 (11:59pm)

## Objective:

Create a program that performs file IO and database interaction via SQL.

## Grading Table:

Task	Points
Programming Guidelines are followed and Documentation report is created	25
Database is created according to specifications below (include file with SQL)	25
Program reads data from CSV File	25
Program inserts data into database	25
Program exports data from database	25
TOTAL (Points Possible)	125

## Instructions:

The goal of this project is to demonstrate basic database interaction using Java. The program needs to read data from the provided file (it is the same data you used for project 03):

"Project04Data.csv" and insert the data into a database. Then the program needs to create a report from the database sorted by price descending. The report should be in the format demonstrated below. *This project could be completed without using a database, but to be considered for full credit the database needs to be created, populated, and queried.*

You will need to create a database with the following fields (do this manually - your program does not need to have this functionality built in):

```
id (primary key - generated by the database)
cpuname
performance
price
```

Please include a text file of the SQL commands you use to create the database. Here is an excellent online resource for SQL commands and info:

[w3schools](#)

The report needs to be in the following format:

```
Intel Core i7-6700HQ @ 2.60GHz: $1,509.00
Intel Core i7-3770K @ 3.50GHz: $560.50
Intel Core i5-3570K @ 3.40GHz: $477.23
Intel Core i7-4700MQ @ 2.40GHz: $467.40
...
```

**Note:** To compile and run your project at the command prompt you will need to manually set the classpath (all on one line):

```
javac -cp .;C:\path-to-desktop\mysql-connector-java-5.1.22-bin.jar YourProject.java

java -cp .;C:\path-to-desktop\mysql-connector-java-5.1.22-bin.jar YourProject
```

Where "path-to-desktop" is the path to your desktop where you placed the database connector jar file and "YourProject" is the name of the class file that contains your main method. If you are using an IDE, consult your documentation for adding jars to a project.

**Note:** For this assignment, submit your Java source code and class files, the text file with the SQL commands used to create the database, and the documentation report. Please do not send me your database or connector.

## Turn In:

1. Create a jar file as demonstrated in class (see the class Blackboard site for notes) that contains your source code and class files named "project04LastName.jar" (the jar file does not need to be executable)
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](mailto:george.patterson@tulsacc.edu)

