

CSCE 156/156H

Assignment 6 - Project Phase V

Database Connectivity – Data Manipulation

Dr. Chris Bourke

Spring 2020

1 Introduction

You will modify the application you developed in Phases I & II to interact with the database you designed in Phase III. In this phase you will modify your application to persist data to the database by implementing an Application Programming Interface (API) to interact with your database using the Java Database Connectivity API (JDBC).

1.1 Database Connectivity

For grading purposes, the database you designed in the previous assignment will need to be setup on your MySQL account on the cse server. Your code should be configured to connect and interact with this database. You should add/remove/modify data to your database as needed for your own testing purposes, but when we grade your program, we will clear out all the data using the API described below (that you must implement) and add/test using our own data.

2 Requirements

You will modify the Java classes you developed in the prior phase to make the following updates.

The driver class that generates the summary and detail reports will retain its functionality. In addition, you have been provided with a new class, `PortfolioData.java` in which we have defined a collection of methods to interact with your database to persist and delete records.

You will fully implement each one of these methods. To better conform to encapsulation, you *may* choose to implement helper methods that utilize your Java classes and then call them from the methods in the `PortfolioData` class. You may add any additional methods that you feel will simplify your task, but you may not modify or remove any of the methods already defined.

The methods you implement will be called by our grading program to clear out the data and then load our own test case data into your database. Then your JAR file is then run to produce the reports and verify the correct output. Thus your JAR file acts as both a library *and* a an executable program. In this context, our grading program can be viewed as the “client” program that interacts with your API. That is, your API is a generalized service that could also be used in a webapp, a GUI application, a mobile app, etc.

3 Artifacts

You will turn in all of your code and artifacts using the usual process. Name your JAR file `Project.jar` and hand it in using the CSE webhandin.

4 Design Write-up

There is no design document for this phase as you were to write about both this and the previous phase in the previous draft.