Programming Assignment 4: GPA Calculator

Write a Java program that calculates a student’s grade point average (GPA). Request the user to enter the number of courses and then for each course request the user to enter the number of credits and the grade. Calculate and display the GPA.

The grade should be entered as a letter grade possibly with a modifier, e.g. B, C+, A-. Your program should make sure the grade entered is valid.

Use the following design for this program: Write a main class with a main method and a separate method named computeQualityPoints with the method header:

```java
public static double computeQualityPoints(String grade)
```

(This is the same method that you wrote for Programming Assignment 4.) The main method should handle the input and output and call computeQualityPoints to convert each grade to quality points (or grade points).

Notes:
- Include an introduction dialog box that describes what the program will do for user.
- Use JOptionPane dialogs for input and output. Prompt the user for the input. Label the output.
- Document the program with comments as we have illustrated in the programs encountered in the lab assignments. Be sure to include Javadoc comments for the method computeQualityPoints.
- Follow the programming style we have illustrated in terms of indentation, meaningful identifiers, and spacing.

Extra Credit:
Extra credit is available if you turn in a correct program by Tuesday, November 24.

Turn in:
- Listing of the source code of your program.
- Copy of the output from one execution of the program along with the data that generated that output.
- E-mail a copy of your source code file to your instructor as an e-mail attachment.

The project is due at 4:00 p.m., Wednesday, December 2.

This assignment is to be completed by each student individually. It is governed by the Help Policy described below.

Assignment Type: Individual

Help Policy In Effect for This Assignment: Individual Project Without Collaboration.

In particular, you may receive help from the following persons, in addition to an instructor in this course: NONE. You may use the following materials produced by other students: NONE.