COSC 1P02 Assignment 6
Making the Grade

***Due: Nov. 25, 2016 @ 4:00 pm** (late date Nov. 28 @ 4:00 pm)*

The emphasis for this assignment is processing data files and writing reporrts. In preparation for this assignment, create a folder called `Assign_6` for the DrJava project for the assignment.

Final Grade Calculation

Write a Java program to compute final grades for a course and produce a final grade report. Students in the course complete two assignments, a test and an exam. A file (`ASCIIDataFile`) of mark data is prepared over the term. It contains the course name (string) followed by, for each student, the student number (string), name (string) and the marks for assignment 1 (double), assignment 2 (double), test (double) and exam (double). The report lists the students' student number, name, marks in the assignments, test and exam and final grade. In addition, as summary, it presents the average final grade in the course and the number of students included in the report. The report would look similar to the following:

```
                          COSC 1P02
                        Final Grades

Student #          Name          A1    A2   Test  Exam  Final
111111     Doe, John             10.0  10.0  50.0 100.0 100.0
222222     Average, Joe           5.0   5.0  25.0  50.0  50.0
333333     Missing, Im            0.0   0.0   0.0   0.0   0.0
444444     Student, Jane          8.0   7.0  37.0  75.0  74.7
Average                                               56.2
Number of students: 4
```

The final grade is computed from the marks as the sum of each individual mark divided by the base mark and multiplied by the weight (contribution to the final grade). The assignments are each marked out of 10 and have a weight of 10. The test is marked out of 50 and has a weight of 30. The exam is marked out of 100 and has a weight of 50.

Hints:

- The program should process the data file to EOF counting the students.
- You should include a method to calculate the final grade as described above.
- You should include separate methods to set up the report format, write a detail line and write the summary data.

Submission:

Details regarding preparation and submission of assignments in COSC 1P02 are found on the COSC 1P02 Sakai Site as `Assignment Guidelines` under

`Course Documents`. This document includes a discussion of assignment preparation, programming standards, evaluation criteria and academic conduct (including styles for citation) in addition to the detailed assignment submission process copied below.

To prepare and submit the assignment electronically, follow the procedure below:

1. Ensure your submission folder (`Assign_6`) contains the DrJava project for the assignment.
2. Using DrJava, print (to `CutePDF Writer`) the `.java` file for your assignment using the name *`ClassName`*`.pdf` where *`ClassName`* is the class name (i.e. same name as the `.java` file) and save the `.pdf` file at the **top level** of the submission folder (i.e. directly within `Assign_6`).
3. Run the program using the file `stData.txt`. When the program requests the printer selection, choose `Cute PDF Writer`. When it presents the save dialog for the printed report, save it as `grades.pdf` at the **top level** of the submission folder (i.e. directly within `Assign_6`).
4. Create a `.zip` file of your submission by right-clicking on the top level folder (i.e. `Assign_6`) and selecting `Send to/Compressed (zipped) folder`. A zipped version of the folder will be created. Use the default name (`Assign_6.zip`).
5. Log on to Sakai and select the COSC 1P02 site.
6. On the `Assignments` page select `Assignment 6`. Attach your `.zip` file (e.g. `Assign_6.zip`) to the assignment submission (use the `Add/Remove Attachments` button and select `Browse`). Navigate to where you stored your assignment and select the `.zip` file (`Assign_6.zip`). The file will be added to your submission. Be sure to check the `Honor Pledge` checkbox. Press `Submit` to submit the assignment. You should receive a confirmation email.

DrJava

The `.zip` folder you submit should contain the project folder including all files relevant to the project—the `.java` and `.class` files for the assignment—and the `.pdf` files for program listings and output at the top level.

Other Platforms

If you are using an IDE other than DrJava to prepare your assignment, you must include the `.java` source files and the `.pdf` files described above for each part as well as an executable file (likely `.class` or `.jar`) that will execute on the lab machines.