

Homework 7

DUE: 9/29/2009 3:00PM

1. Do the true/false questions on page 115 of Z
2. Do the multiple choice questions on pages 115-116 of Z
3. Do exercise 4 on page 118 of Z
4. **Putting it all together**

The grader has a spreadsheet containing student names and grades, and would like for you to write a program that can read in the file and print a list of student averages.

The spreadsheet columns include the last name, the first name, and the grades belonging to the students.

Gumby	R.J.	100	100	90	100	92	93	88
Norman	Spiney	100	97	15	89	90	94	67

The spreadsheet is saved as a CSV (comma-separated values) file. Textual values are enclosed in quotation marks. The spreadsheet above would be saved in a file as:

```
"Gumby", "R. J.", 100, 100, 90, 100, 92, 93, 88  
"Norman", "Spiney", 100, 97, 15, 89, 90, 94, 67
```

The grader would like for the output of the program to be displayed in the following format:

```
NUM STUDENT                AVG  
-----  
  1 R. J. Gumby             95 A  
  2 Spiney Norman           67 D  
-----  
                Average Grade:  81 B
```

The number of the student should right-justified in width 3 space, the student name should be typeset in a width 25 space, the average of the student should be right-justified in another width 3 space, and the letter grade (see problem 3) should be printed last.

The last line of your output should display the average of the student averages.

Keep in mind the following points when writing your program:

- The number of rows (students) is unknown
- The number of grade columns is unknown (at least one)
- The average should be rounded to the nearest integer
- Implement and test the program in stages, for example:
 - (a) Write a program to average the numbers in a list
 - (b) Read and print the file contents
 - (c) Print just the student names (firstname lastname)
 - ...
 - (x) Finish the program, make the output pretty

You should show the results of running your program on the spreadsheet available at:

<http://www.umcs.maine.edu/COS125/test.csv>