## Creating a Microsoft Excel Grade book

Open the web browser and type the course web address: http://www.cs.csi.cuny.edu/~yumei/csc 704/csc704Fall15.html


Right click the link named "Test" and click "save link as ..." in the menu.


Navigate the location to "Desktop" and click the button "Save".


Now minimize the web browser. On the desktop, click start button and click Microsoft Excel in the menu


Now the Microsoft Excel is opened:


Click "Data" tab on the top of the menu, and click the icon of "From Text".


Navigate to the location of Desktop, click the file named "test1.txt, and click the button Import.


Click the Next button.


Check "Comma" and uncheck "Tab", then click Next button.


Then click button Finish.


Then the data is imported into your spreadsheet file, and you have the following window:


In row 9, type the following:
<Your Name> <Place here grades of your choosing>

When you finish, your spreadsheet should look like this.


All the grades are right justified in the cells. All text is left justified. To make the quiz and exam labels line up with the grades, we need to make the right justified. Highlight the cells with the quiz and exam labels. In the Alignment group, click on the icon that shows right justification.


Then you have the following window:


Insert a column between Quiz4 and Exam1. Place your cursor in the column for Exam 1. In the Cells group click on Insert, then Insert Sheet Columns. A column will be inserted to the left of your current column.


Title this column, Quiz Average. Note that the label is too large for the cell. In the Alignment group click on Wrap Text. This will wrap the text within the cell. Do the same for the Exam Average label.


The window becomes:


Enter a formula under the Quiz Average column that will calculate the quiz average. To do this:
a. Click and highlight the cell F2, type " $=$ ", select the Average formula from the drop down menu under Auto Sum in the editing group

b. Change the range for the formula by dragging your mouse over the range of boxes for Quiz1 - 4 or just type B2:E2.

c. click ok, the result of the formula will be displayed in the cell.

d. Place your cursor back into the cell and move it into the lower right corner of the cell, so that it is positioned over the "little box". Your cursor will change into a plus sign. Drag the cursor down the column so that the formula is copied down the column so that all the averages for all students are calculated.

e. Notice that the averages are printed to many decimal places. To change the number of decimals displayed, highlight the cells containing the Exam Average. Right click to open the format cell dialog box. Choose Number and 1 decimals.


Now you have the following window:


Now we want to recalculate the Quiz Average by dropping the lowest quiz. Click the cell F2 and change the formula to " $=(\mathrm{SUM}(\mathrm{B} 2: \mathrm{E} 2)-\mathrm{MIN}(\mathrm{B} 2: \mathrm{E} 2)) / 3$ " and copy the formula so that all the quiz averages for all students are calculated same way.


Enter a formula under the Exam Average column that will calculate the exam average. In cell J 2 , type " $=$ " and select Average function, change the range for the formula to G2:I2, and then click button OK.


Place your cursor back into the cell and move it into the lower right corner of the cell, so that it is positioned over the "little box". Your cursor will change into a plus sign. Drag the cursor down the column so that the formula is copied down the column so that all the exam averages for all students are calculated.


Notice that the averages are printed to many decimal places. To change the number of decimals displayed, highlight the cells containing the Exam Average. Click on the drop down box in the lower right of the Number group to open the number format dialog box. Choose Number and 1 decimals.


Your gradebook should look something like this:


The semester has finally ended. (Yeah!!!!) It is time to determine the final grades for each student. You decided in the beginning of the semester that the quiz grades would be worth $30 \%$ of the final grade and the exams would be worth $70 \%$.
a. In cell A12 place the title Percent Value for Quiz Average. In cell B12 place the title Percent Value for Exam Average. Wrap the text and if necessary, drag the column to make it wider. Place the value .30 ( 30 percent) into cell A13 and the value .70 ( 70 percent) into cell B13.

b. Title the column, following Exam Average, Final Grade. Enter a formula into cell K2 that will compute the final grade: $=\mathrm{F} 2 * \mathrm{~A} 13 * 10+\mathrm{J} 2 * \mathrm{~B} 13$.

c. Copy the formula to other students in this column. What do you see?

d. We are going to use absolute addressing to refer to the cells containing the percent value for the weighted grade. If you recall, when we copy a formula, Excel maintains the relative position of the formula relative to the cells the formula refers to. In absolute addressing we tell excel, NOT to change the address of the cell as we copy it. To do this we preface the column and the row designation with the dollar sign. For example, cell A13 would appear as $\$ A \$ 13$ in the weighted quiz formula. Place the following formula into the Final Grade column for Barack Obama (cell K2): $=\mathrm{F} 2 * \$ \mathrm{~A} \$ 13 * 10+\mathrm{J} 2 * \$ B \$ 13$

e. Copy this formula down the column

f. Change the decimal places to 1

g. Excel displays the results of formula calculations in the cell by default, instead of the actual formulas. To see formulas, on the formula tab, in the Formula Auditing group, click on Show Formulas. Notice how $\$ \mathbf{A} \$ 20$ appears in each formula in the Weighted Quiz column.

h. To view the values, click on Show Formulas again.


To make a spreadsheet more readable, we sometimes add shading to cells. Let's shade the row of quiz and exam labels. Highlight all the cells from Name to Final Exam, right click and select Format cells in the listed menu.


Click the Fill tab, and choose a color you would prefer the heading shaded with and the press okay.


Your final gradebook should look something like this:


As you add columns to a worksheet, it gets harder to see which row aligns with which student. It would be nice if we could align the final grade column, closer to the student names.

We are going to use "hide" feature to solve this: click column B to E to highlight these columns, right click to show the menu and click "hide".


And you can get the following window:


If you want to resume to the previous window, click column A to F to highlight these columns, right click and click unhide from the listed menu.


You can also use the freeze frame feature to remedy this situation. Place your cursor into the Exam1 grade for Barack Obama.
On the View tab, click on Freeze Panes, and choose the first option.


Click the scroll bar to move right as follows:


You will see column B is not shown.


You can continue to click the right scroll button three times, you will see the following:


Now try to click scroll down button, you can see the following:


Use your own grading criteria to enter a letter grade for each student in the Final Grade column. Sorry, no shortcuts here!!
SAVE YOUR FILE TO GOOGLE DRIVE SO THAT YOU CAN USE IT IN THE FUTURE.
PRINT and hand in this worksheet.

