What's Possible with Excel?

Name	M/F	IEP	Race	Title1	Learning Style	Test1-SI	#1Quiz	#2 Quiz	Quiz #3	Quiz	HW	Unit Test	Lab 1	HW	HW	Lab2	Unit2 Test	HW	AVE Test	AVE Quiz	AVE HW	AVE LAB	AVE Grade
Adams, M.	M		Black	Yes	Listening	0%	60%	55%	65%	60%	0%	50%	55%	63%	63%	55%	25%	0%					
Banks, S.	F		Black	Yes	Hands-on	50%	75%	85%	68%	76%	74%	90%	80%	85%	85%	80%	70%	74%					
Baxter, A.	F		Black	No	Reading	50%	75%	70%	80%	75%	76%	0%	50%	50%	50%	50%	25%	76%					
Campbell, C.	F		Black	Yes	Cooperative group	80%	45%	100%	100%	82%	90%	98%	98%	98%	98%	98%	89%	90%					
Charity, Marlynn	F		Black	Yes	Hands-on	50%	100%	80%	80%	87%	79%	99%	70%	90%	90%	70%	75%	79%					
Dowdell, W.	F		Black	Yes	Cooperative group	90%	80%	60%	70%	70%	85%	86%	50%	85%	85%	50%	88%	85%					
Foston, J.	F		Black	Yes	Reading	100%	100%	100%	100%	100%	95%	75%	100%	98%	98%	100%	88%	95%					
Head, D.	M		Black	Yes	Study	0%	82%	70%	82%	67%	68%	50%	80%	78%	78%	80%	25%	68%					
Holt, S.	F		Black	Yes	Listening	70%	0%	0%	60%	20%	45%	0%	0%	50%	50%	0%	35%	45%					
Jackson, K.	F		Black	Yes	Assistance	60%	60%	45%	0%	35%	65%	65%	50%	50%	50%	50%	63%	65%					
Jeffcoat, M.	M		Black	Yes	Listening	50%	0%	60%	0%	20%	0%	70%	0%	0%	0%	0%	60%	0%					
Jenkins, T.	F	X	Black	Yes	Hands-on	35%	70%	100%	100%	90%	98%	69%	0%	100%	100%	0%	52%	98%					
Johnson, C.	F		Black	Yes	Listening	55%	68%	100%	90%	86%	88%	0%	100%	50%	50%	100%	28%	88%					
Johnson, K.	F		Black	No	Assistance	0%	44%	75%	70%	63%	72%	0%	85%	50%	50%	85%	0%	72%					
Marshall, D.	F	X	Black	Yes	Attention	90%	70%	100%	100%	90%	100%	105%	100%	100%	100%	100%	98%	100%					
McKoy, M.	F		Black	No	Reading	50%	60%	80%	90%	77%	85%	80%	85%	95%	95%	85%	65%	85%					
Powell, S.	F		Black	Yes	Cooperative group	90%	70%	100%	90%	87%	100%	68%	100%	110%	110%	100%	79%	100%					
Plight, D.	F		Black	Yes	Reading	80%	60%	98%	100%	86%	100%	70%	100%	110%	110%	100%	75%	100%					
Queen, A.	M		Black	Yes	Reading	0%	60%	85%	70%	72%	50%	75%	50%	0%	0%	50%	38%	50%					
Reddic, P.	F		Black	Yes	Reading	50%	50%	60%	80%	63%	80%	70%	80%	70%	70%	80%	60%	80%					
Small, C.	M	X	Black	Yes	Attention	80%	60%	0%	70%	43%	0%	55%	70%	70%	70%	70%	68%	0%					
Sprigs, S.	F		Black	No	Cooperative group	0%	70%	50%	45%	55%	45%	70%	65%	0%	0%	65%	35%	45%					
Wilcher-Simpson,M.	F		Black	No	Study	0%	70%	80%	70%	73%	88%	63%	80%	80%	80%	80%	32%	88%					
Womack, B.	F		Black	Yes	Cooperative group	0%	50%	60%	45%	52%	35%	75%	70%	0%	0%	70%	38%	35%					

For this case study scenario you will record the above grades into an Excel spreadsheet, calculate the individual Quiz, HW, Test, and Lab averages for each student as well as their final grade (based on a weighted average), the class average, the SD/variance of particular grades, convert the numeric grades to letter grades, and then be able to analyze the data via data filtering and conditional formatting options, and review a particular students process with a parent. Sound complicated? Let's walk through to see how easy this can be via technology.

Steps:
   1. **Getting it into Excel**
       a. Open Excel and enter the average gradebook into an Excel Spreadsheet.
       b. **You can cut and paste this into Excel and increase the font if needed**
       c. You can also move columns around by cutting and pasting or insert more columns and rows
   2. **Find the Average**
       a. Find each student's Quiz Average
       b. Find each student's HW Average
       c. Find each student's Test Average
       d. Find each student's Lab Average
       e. Find each student's Final Grade given that: Quizzes counts 20%, Labs count 35%, HW counts 25% and Tests count 20%.
       f. Find the class average for each category as well as the overall class average

HINTS***
   • To average you can highlight a set of cells, use the summation key (Σ) to get a total and then divide by the number of scores
   • Another way to average is by using the function features ---to the computer "=" means a calculation is to follow. You can type in the function you want it to perform. For example,   =AVERAGE(L2:S2)   which tells the computer AVERAGE the values found in cells L2 through S2
   • Once you enter in a formula once –through click and drag you can have the other students averages fill in automatically.
   • To calculate the students final grade, understanding that different categories are worth different amounts you will have to create a formula to reflect the weighted averages.
   • **Find the Standard Deviation and Variance for each of the categories (Quizzes, Tests, Labs, HW) See reading**

HINTS****
   • You might want to make additional columns in your Excel spreadsheet
   • =STDEV(cells)   =VAR(cells)
   • you might also want to review what SD and Variance mean in teacher talk via the class notes/readings

   4. Using the LOOKUP feature to Convert Numbers to Letter Grades. Using:
   Lookup For Grades
   F   0%
   D   60%
   C   70%
   B   80%
   A   90%
   Convert the numerical grades to letter grades via the LOOKUP feature.

   HINTs***

- See LOOKUP feature notes in reading.
- Excel lists if and how the Lookup feature is used—this is what I will be looking for---please DO NOT manually enter in grades—I'll send it back.

5. Using the Data Filtering feature sort students in order to quickly tell if there are differences between ethic groups/gender etc…

Hint***
- Highlight the first row (your headings) and then from your menu bar select Data -> Filter -> AutoFilter

6.Conditional Formatting/Red Flagging

The school will be starting a new peer mentoring initiative. Students who do well in classes will be mentoring/tutoring students who are not doing as well--or having a difficult time. Please use the **Conditional Formatting** feature to "tag" all your **high achievin**g students (**for all assignments**) AND "tag" all students **having a hard time.** You may choose the definition of high performing and low performing. You can also choose how you would like to "tag" them in your Excel spreadsheet--i.e., what colors or patterns etc...

Hint***
- See notes in reading about conditional formatting

7. Parent Conference

S. Sprigs' parent is coming in later today for a teacher/parent conference.. You need to review this student's grade to discuss strengths and weaknesses. The principal asks that you create a visual (use Excel Chart Wizard) to display to the parent the students scores. You have flexibility in what and how you display.