Lab 10: assigned 11/16, due 11/29 at 11:59pm

This is a submitted, graded lab. There are no late labs accepted for any reason. Please start early. You can submit as many times as you want (we only grade the last one). If you attempt to submit after the due date, UB Learns won't accept it, and you will unavoidably receive a zero on the lab and we will all feel terrible. Further, it is expected that you will submit compile-able, working, tested code. Anything less will receive a zero. If your code doesn't compile, we have nothing to grade.
Suggestions: pretend that the lab is due Friday 11/28 and act accordingly. Submit your files, then re-download them and re-test them.

1. **Use a MATLAB script file** to compute statistics for phone assemblies for each vendor. Again, USE A SCRIPT FILE. Do not type into the command window for this lab. You are required to submit an m file.

Phone Components	Qty in Assembly	Nokia weight in kg	Apple	Samsung	Average	Minimum
Screen	1	.35	.33	.28	??	??
Screws	22	.05	.02	.03	??	??
Switches	3	.20	.21	.20	??	??
Batteries	2	1.3	1.8	2.0	??	??
Cable	1	1.0	1.44	1.06	??	??
Connectors	4	.45	.53	.41	??	??
Frame	1	2.0	1.9	2.1	??	??
Camera Lens	1	.45	.48	.51	??	??
Cover	1	1.8	1.75	1.6	??	??

a. use MATLAB to complete the average and minimum columns, giving the average weight of each component, and the lightest in weight of each component.

b. Show the total weight of the assembly *__for each vendor and the average column and the minimum column.__*

hint: construct a row vector from the quantity column: Qty = [1 22 3 2 1 4 1 1 1] . Construct a 9x5 matrix from the vendor weight data. Multiply the Qty vector * each column. Remember that you can isolate each column of the 9 x 5 using *matrixname(1:9, col)*.

c. Clearly label your results: Nokia, Apple, Samsung, Average, Minimum

Call your file **yournameLab10.m**

2. Do the same, **in Excel**. Call your file **yournameLab10.xls (or .xlsx)**

3. Do the same **in C++ using arrays**. Call your file **yournameLab10.cpp**

hint: You'll need 6 arrays: Qty, Nokia, Apple, Samsung, Average and Min. You'll have to use "for" loops to construct the Average and Min array, and to do the multiplications. The minimum and average values must be calculated in the C++ program (meaning, you cannot merely copy the average and minimum values from your MATLAB calculations).

Note that all of your answers should agree. Submit all 3 files.