CSIT 221 Computer Science II  
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Array and File Manipulation

Homework 1

(Total of 100 points)

Due: Thursday, **September 7**, 2017

In this assignment you are asked to write a program that calculates a letter grade for each student upon reading records of information from a *grade.txt* file. The contents of the grade.txt file is similar to the following, but will have more lines of input:

John Sebastian 90 80 85 90 75 70 89 80 90 86 88 89 99 100

Brown Ford 40 60 80 85 60 90 100 80 90 83 81 89 97 90

Each line consists of first name, last name, 4 exam (the first 3 exams each are worth 10%, and the last exam is worth 25%), followed by five quiz and five homework grades. Each quiz is worth 3% (15% total); the five homework grades are worth 30% (6% each). After your program reads in the first and last names, it will read in the exam, quiz and homework grades in the order. For each student it should call a function called letter\_grade() to calculate the weighted average scores. It should pass the scores and the weights in two separate arrays to the function. The function using the following formula:

A if average grade is > 90

B if average grade is > 80 and <= 90

C if average grade is > 70 and <= 80

D if average grade is > 60 and <= 70

F if average grade is <= 60

Upon determining the letter grade must return a letter grade to the main program where the output will then be printed to a file called "gradeoutput.txt" with the following information:

Name Last WE WQ WA Sum Letter Grade

John Sebastian 46.00 12.12 23.10 85.84 B

Brown Ford 33.25 12.6 22.00 72.25 C

Should you have any questions, please, feel free to stop by during my office hours or send me an e-mail. **Good Luck!**