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Part 1:

1.a) Initialize and declare the file and create a scanner to read from the file. Get the data line by line from the file by a loop; first data in the file is the last name of the student, has to be saved as a string; then the next 11 numbers has to be saved as double which is include the test1, test2, tFinal, homework1, homework2, homework3, homework4, homework5, homework16, and the quizzes grades (Q1, Q2). then an integer (HW\_count) that represent the number of submitted homework. And the last part of the line is the first name of the student which is string.

Test the validity of the grades, each grade it has to be in the range that required then multiply it by its specific percent. For the test one t1 has to be larger than zero and less than or equals to 100 then multiply it by 0.1. then the test two t2 also has to be larger than zero and less than or equals to 100 then multiply it by 0.15. the final exam tFinal grade has to be larger than zero and less than or equals 200 then multiply it by 0.25. If the test grade out of the range it has to be zero.

Also test the validity of the homework grades; (HW1, HW2, HW3, HW4, HW5, and HW6),if the grades out of the range (smaller than zero or larger than 50) it will be zero, else if the grade is larger than 0 and less than 51, then find the highest1 grade from the homework by if statement and compering the highest between the six homework, then find the second highest homework grade (highest2) by if statement and compare with the highest homework grade and it has to be less than the highest1. Find the third highest grade (highest3) by if statement and compare it with the other homework, it has to be less than highest1 and highest2. Find the fourth highest grade (highest4) by if statement and compare it with the other homework, it has to be less than highest1, highest2, and highest3 .

If the HW\_count is equals to 6, take the highest four and multiply each by 0.12 to get the present of that homework grade.

If the HW\_count is equals to 5, take the highest four and multiply each by 0.115 to get the present of that homework grade.

If the HW\_count is equals to 4, take the highest four and multiply each by 0.10 to get the present of that homework.

If the HW\_count is less than 4, take the highest four and multiply each by 0.075 to get the present of that homework grade.

Test the quizzes grades if it is more than 0 and less than 11 then multiply each quiz (Q1, Q2) grade by 0.01 and save it in a variable that is double. Else if the quiz grade less than zero or larger than 10, it will set zero.

Add all the present of the student's grades for (test1, test2, tFinal, the highest four homework grades (highest1, highest2, highest3, highest4), and the quizzes grades q1, q2) and assign it to the final grade.

Print the final grade with the name of the student then go to the next line in the file and do the same, because it is loop, until last line.

1.b) Please see ***Lab6Part1b.java***

1.c) Please see ***Lab6Part1c.java***

1.d) Please see ***Lab6Part1d.java***

1.e) The error "InputMismatchException" occur when the input file was not formatted correctly.

1.f) Please see ***Lab6Part1f.java***