**Submission of Your Work**

You need to prepare and submit ONE SINGLE MS Word document to Canvas (in your lab section) as LastName\_FirstName\_Lab07.doc. It must contain:

* Your NAME
* For each question:
  + Specify the question number.
  + After reading the question requirements, but before beginning any coding, create the test case table, below, through column Expected Output. Write your program then complete the **test table** with actual output results and include in your report.
  + Copy/Paste your completed source code. You must include standard “header” in every program even if code is provided.
  + Paste in a snippet of output showing results for **every listed test case**, labeled with test case # 4 TEST CASES NEEDED ONLY

Test Table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test # | Valid / Invalid Data | Description of test | Input Value | Actual Output | Test Pass / Fail |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |

* Add / delete rows from Test Table as necessary
* Modify column widths in Test Table as necessary
* Test both valid and invalid input
* Test for every output expected
* If failure is an expected output and it happens then that test Passes
* Any test that fails means the program must be fixed so that it passes the test

### **Question 1:**

Consider a **text file that you will create** named “employees.txt”. The file contains data organized according to the following format:

John Smith 10 15

Sarah Johnson 40 12

Mary Taylor 27 13

Jim Stewart 25 8

For instance, “John” is the first name, “Smith” is the last name, “20” is the number of hours per week, and “9” is the hourly rate.

Write a program that computes the weekly salary of each employee. The program prints the first name, last name, and weekly salary of each employee in a file named “results.txt”. **‘results.txt” must be created automatically by your program.** You must use a function to read/process the data from the input file and this function must have parameters. The “employees.txt” file must be opened from main and read from within your defined function.

**Question 2**

Consider a file with the following student information:

John Smith 99

Sarah Johnson 85

Jim Robinson 70

Mary Anderson 100

Michael Jackson 92

Each line in the file contains the first name, last name, and test score of a student.

Write a program that prompts the user for the file name, then calculates and displays the average score of all students by reading the data from the named file the user provided. You should use a function to read/process the data from the file and this function must have parameters and should use call by reference. Your program should also present the highest score in class. **The average and highest scores must be determined within your function. However, the display of the average and highest scores must be done in main.**