CIS 150 – Lab 05

**Submission of Your Work**

You need to prepare and submit ONE SINGLE MS Word document to Canvas (in your lab section) as LastName\_FirstName\_Lab05.docx. 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” even if code is provided.
  + Paste in a snippet of output showing results for **every listed test case**, labeled with test case #

Test Table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test # | Valid / Invalid Data | Description of test | Input Value | Actual Output | Test Pass / Fail |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |

* Add / delete rows from Test Table as necessary
* Modify column widths 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**

Write a program that reads integers until the user enters a 0, and then displays the total of the integers. You are required to use the while loop.

|  |  |
| --- | --- |
| **Example Input** | **Corresponding output** |
| **Enter a value or 0 to quit : 3**  **Enter a value or 0 to quit : 2**  **Enter a value or 0 to quit : 15**  **Enter a value or 0 to quit : 0** | **The total is 20** |
| **Enter a value or 0 to quit : 1**  **Enter a value or 0 to quit : -2**  **Enter a value or 0 to quit : 4**  **Enter a value or 0 to quit : 0** | **The total is 3** |

**Question 2**

# Write a program that asks the user for the number of students in the class.

# The program asks the user for the grade of each student, computes the average grade in the class, and displays the calculated average. You are required to use the for loop.

**Question 3**

# Write a program that displays the following menu:

# Enter Two Integer Values

# Add the two values

# Multiply the two values

# Exit

Please Enter your Choice (1-4):

Assign 0 as a default value to each integer.

If the user selects options 2 or 3, then the program uses the values entered in option 1.

If the user selects option 4, then the program terminates.

You are required to use switch and do while statement.