**CMSC140 Programming Classwork/Homework**

**1. Develop**  a program that asks for the number of tickets sold and computes the total cost of the purchase at Walt Disney World based on the following information:

Walt Disney World sells tickets for $109 per day.  Discounts are given for purchasing multiple days of tickets at the same time.  The discounts are given according to the following table:

Quantity             discount  
3-4 days               10%

5-6 days               25%

7-9 days               33%

10+ days              42%

Input validation: Make sure the number of days is greater than 0.

Name your file FirstInitialLastName\_CW\_4\_Part1. cpp

**Submit:**

C++ file (source code): FirstInitialLastName\_CW\_4\_Part1. cpp

Screenshot of output in Word Document - use your name, CRN, a semester in the file name, and also in the Word document.

**Example output:**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*



**2. Develop** a program to determine the price for a custom shop sign. The price is determined by the number of colors in the sign, if the sign will have lighting, and if an old sign must be removed.

The fee schedule is shown below:

 Lighted signs cost 25% more than the base price, and removal of an old sign costs 10% of the base price of the new sign.

|  |  |
| --- | --- |
| Colors in the sign | Base Price |
| 1 | $250 |
| 2 | $325 |
| 3 | $450 |
| 4 | $625 |
| 5 or more | $850 |

**Example output:**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*



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**Submit:**

* + C++ source file LastNameFirstName\_CW\_4\_Part1.cpp file
  + C++ source file LastNameFirstName\_CW\_4\_Part2.cpp file
  + Screenshots of output for each program in Word Document - use your name, CRN, semester in the file name and also in the Word document.

**Grading Rubric:**

|  |  |
| --- | --- |
| Grading Criteria | 100 Points |
| 1. File format requirements | 5 |
| 1. Word Document with following requirements listed below:    1. Algorithm/Pseudocode. (-10)    2. Screen prints of program run. (-10) | 20 |
| 1. Submit LastNameFirstName\_CW\_4-Part1.cpp file    1. Program passes sample data tests.  (-10)    2. Program passes instructor data tests. (-10)    3. Quality of detailed steps and screenshots as per requirements listed above. (-5)    4. Incorrect use of indentation, naming convention, etc. (-5)    5. Not meet input requirement(s)/Took input incorrectly  (-5)    6. Not display or produce all required output. (-5)    7. Not meet output requirements. (-10)    8. Not use required control structure(s), operator(s) or statement(s). (-10)    9. Not use variables, constants, and literals (-3)    10. Not declare and initialize all required data items (-3)    11. Not use output manipulator: setprecision, fixed, etc. (-4) | 35 |
| 1. Submit LastNameFirstName\_CW\_4-Part2.cpp file    1. Program passes sample data tests.  (-10)    2. Program passes instructor data tests. (-10)    3. Quality of detailed steps and screenshots as per requirements listed above. (-5)    4. Incorrect use of indentation, naming convention, etc. (-5)    5. Not meet input requirement(s)/Took input incorrectly  (-5)    6. Not display or produce all required output. (-5)    7. Not meet output requirements. (-10)    8. Not use required control structure(s), operator(s) or statement(s). (-10)    9. Not use variables, constants, and literals (-3)    10. Not declare and initialize all required data items (-3) 2. Not use output manipulator: setprecision, fixed, etc. (-4) | 35 |
| 5.  Submitted the deliverables as per the due dates specified in the course schedule. | 5 |
|  | 100 |

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Header to include in source code:

 \* Class: CMSC140 CRN

 \* Instructor:

 \* Classwork/Homework/<1>

 \* Description:

 \* Due Date:

 \* I pledge that I have completed the programming assignment independently.

   I have not copied the code from a student or any source.

   I have not given my code to any student.

   Print your Name here:

   \* Pseudocode or Algorithm for the program:

                (be sure to indent items with control structure)

                (need to match flow chart submitted in documentation)

  1.Declare a variable visitorName.

  2.Receive the input visitorName.

  3.Declare a variable num, and receive the input and store the data num.

  4.Caculate years, months, days, hours, minutes, seconds, human age, dog age and fish age.

  5.Declare variables num1 and num2.

  6.receive the input and store the data num1 and num2.

  7.using operator "+,/" to calculate, and using cast expression to convert double.

 \*/