**Topic 2 Assignment / Chapter 5**

**Windows Programming & CIS-2225**

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| Author: | Christopher Sigouin |
| Date: | September 18, 2015 |
| Due Date: | September 21, 2015 |
| Assignment: | Topic 2 Chapter 5  Exercise #5 |
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|  | CIS-2225 Windows Programming |

Topic 2 Assignment 1

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| To: | Gerald Caissy |
| From: | Christopher Sigouin |
| Date: | September 18, 2015 |
| Subject: | Internet Merchandise Provider Application |
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The application for this exercise was designed to calculate shipping costs based on the number of items entered. Below details the description of the exercise itself.

A large Internet merchandise provider determines its shipping charges based on

the number of items purchased. As the number increases, the shipping charges

proportionally decrease. This is done to encourage more purchases. If a single

item is purchased the shipping charge is $2.99. When customers purchase

between 2 and 5 items, they are charged the initial $2.99 for the first item and

then $1.99 per item for the remaining items. For customers who purchase more

than 5 items but less than 15, they are charged the initial $2.99 for the first item,

$1.99 per item for items 2 through 5, and $1.49 per item for the remaining items.

If they purchase 15 or more items, they are charged the initial $2.99 for the first

item, $1.99 per item for items 2 through 5, and $1.49 per item for items 6

through 14 and then just $0.99 per item for the remaining items. Allow the user

to enter the number of items purchased. Display the shipping charges.

Design of the application includes two labels, two text box fields (one of which is read only and acts as the output for the shipping costs), and two buttons (one for calculating the cost and the other to reset the fields). The majority of the functionality is based within the calculate button. When a user enters a number of items and finally clicks on the calculate button, the application will process this amount through a series of if else decision structures. Constants are utilized to represent each shipping cost as well as a max cost if the item limit exceeds a range ( such as the maximum shipping cost for 2-5 items or the maximum shipping cost between 6 to 14 items ). This will increase readability within the syntax itself and provide a method to change the values easily if the situation ever occurs. Error checking is included for the number of items text field that allows user input. Also, below is some test data that can be used with the application:

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| **TEST DATA** | |
| 1 ITEM | $2.99 |
| 5 ITEMS | 2.99 + ( 1.99 \* 4 ) = $10.95 |
| 10 ITEMS | 2.99 + ( 1.99 \* 4 ) + ( 1.49 \* 5 ) = $18.40 |
| 20 ITEMS | 2.99 + ( 1.99 \* 4 ) + ( 1.49 \* 9 ) + ( .99 \* 6) = $30.30 |