**COP3014-Foundations of Computer Science**   
**Assignment #2**  
**100 points  
  
No Late Assignments will be Accepted!**

In this assignment you will implement a program called ***"call\_info.cpp"*** that uses three functions, ***input***, ***output***, and ***process***.  You must use input and output parameters when implementing this program.  The function ***input*** will get the input from the user, the function ***process*** will perform the necessary calculations required by your algorithm, and the function ***output*** will print the results and any output that needs to be printed.

The program ***"call\_info.cpp"*** will calculate thenet cost of a call ***(net\_cost),*** the tax on a call ***(call\_tax)*** and the total cost of the call ***(total\_cost).***  The program should accept ***a cell phone number (cell\_num)***, ***the number of relay stations(relays),*** and ***the length in minutes of the cal (call\_length).***  Please consider the following

1) The ***tax rate (in percent) on a call (call\_rate)*** is simply based on the number of ***relay stations (relays)*** used to make the call  (1<= ***relays*** <=5 then ***tax\_rate*** = 1%; 6<= ***relays*** <=11 then ***tax\_rate*** = 3%; 12<= ***relays*** <=20 then ***tax\_rate*** = 5%; 21<= ***relays*** <=50 then ***tax\_rate*** = 8%; ***relays*** >50 then ***tax\_rate*** =12%) .

2) The ***net cost of a call*** is calculated by the following formula:  ***net\_cost = ( relays*** */* ***50.0  \*  0.40 \* call\_length).***

3***)*** The tax on a call is calculated by the following formula:***call\_tax*** = ***net\_cost \*  tax\_rate / 100.***

***4). The total cost of a call (rounded to the nearest hundredth)*** is calculated by the following formula: ***total\_cost*** = ***net\_cost*** + ***call\_tax .***  **All** **tax and cost** **calculations** should be rounded to the nearest hundredths.  Use the following format information to print the variables:

        Field                               Format   
    ======================================   
**Cell Phone** **XXXXXXXXX  
    Number of Relay Stations             �� XXXXXX                       
    Minutes Used                             ����� XXXXXX**  **Net Cost                          ���� XXXXXXX.XX**   **Call Tax**  **XXXXX.XX  
    Total Cost of Call             �� XXXXXXX.XX**

**Handing in your program**

Electronically submit ***"call\_info.cpp"*** in the Assignments area of Blackboard before the due date and time. Remember, no late assignments will be accepted.     
 

**Input Example:**  (**Your program should prompt the user for input)**

Enter your Cell Phone Number:   9548267184  
Enter the number of relay stations:   **40**   
Enter the length of the call in minutes:  **56**   
 

**Output Example:**  **(Your output should look lit this)**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*   
**Cell Phone Number:**  **9548267184**   
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**Number of Relay Stations:    40**

**Length of Call in Minutes:    56**

**Net Cost of Call:                   17.92**

**Tax of Call:                            1.43**

**Total Cost of Call:                19.35**

**Ask the user if more calculations are necessary with the following prompt:**

**Would you like to do another calculation for another employee (enter y or n)?**