



Program Logic Using C++
CSC 5 #43620
Spring 2014
Carl Argila

Last Name (PRINT)

First Name (PRINT)

Date

Project #3 – Functions

The Southern California Outfitters catalog sales department charges customers ordering from their catalog according to the following:

| <u>Month Ordered</u> | <u>Discount on Sale Amount (before tax)</u> |
|----------------------|---|
| Jan. – May | 5 % discount |
| Jun. – Aug. | 10 % |
| Sep. – Dec. | 15 % |

Sales Tax: (Calculate AFTER discount is taken)

| | |
|--------------------|--------|
| Orange County | 7.75% |
| San Diego County | 8.25 % |
| Los Angeles County | 8.00 % |

Shipping:

| | |
|------------------|---|
| 25 lbs and under | - \$ 5.00 (flat rate) |
| 26 – 50 lbs | - above rate 1st 25 lbs and \$0.10/lb for each lb over 25 |
| over 50 lbs | - above rate for 1st 50 lbs and \$0.07/lb for each lb over 50 |

Write and execute a C++ program that does the following:

- + Write a void function called GetSalesInfo that accepts the following as input from a user
 - Account number
 - Date of sale (month, day, and year as integers)
 - The county code
(‘O’ for Orange County, ‘S’ for San Diego county, ‘L’ for LA County)
 - Total sale amount (before tax)
 - The shipping weight (integer)This function should return all these inputs to the calling function
- + Write the following value returning functions:
 - CalcDiscount – returns the appropriate discount for the sale
 - CalcSalesTax – returns the appropriate sales tax based on the county.
 - CalcShipping – returns the shipping based on weight.
- + Write a void function called OutputInvoice that produces an invoice exactly as shown below.

Write the functions in the order they appear in the preceding list.
Be sure to adhere to the style requirements for the class.
Use constants where appropriate. EACH FUNCTION SHOULD BE WELL DOCUMENTED.

Turn in

1. The FIRST PAGE of this assignment as a coversheet.
2. Output as described below (cut and paste into an output.txt file within Eclipse).
3. Listing of PROPERLY DOCUMENTED CODE (Refer to the chapter on STYLE REQUIREMENTS) printed from Eclipse.
Be sure to document the function prototypes as discussed in class (description, inputs and outputs). Make sure you are utilizing proper error handling. ALSO be sure to include the listing of your print heading function.

TEST INPUT – Test each one of these cases!

| Acct # | Date | County | Sale Amount | Weight |
|--------|------------|--------|-------------|--------|
| 1234 | 2/21/2008 | O | 235.75 | 28 |
| 4325 | 6/15/2008 | S | 157.50 | 15 |
| 6754 | 12/23/2008 | L | 450.00 | 75 |

Screen Input/Output should be formatted as follows

Note: Input/output is shown for the **first** test case only. ALL test cases should be formatted as follows. Triple space between each test case. Use setw() to properly format the output.

```
Please Enter your Account Number: 1234
Please Enter the Sales Date.
Enter Month: 2
Enter Day: 21
Enter Year: 2008
Please Enter the County Code: o
Please Enter the Sales Amount: 235.75
Please Enter the Weight: 28
```

```
ACCOUNT NUMBER
1234
```

```
COUNTY
Orange County
```

Double Space

```
DATE OF SALE: 2/21/2008
```

Triple Space

```
SALE AMOUNT:      $ 235.75
DISCOUNT:        $  11.79
SALES TAX:         $  17.36
SHIPPING:          $   5.30
TOTAL DUE:         $ 246.62
```

Triple Space
after each run