

CS118 Programming Assignment

Exam 2 - Cash Register

Prepare a cash register program that will compute the tax and final price for purchases. The program is being written only for two counties: Volusia, which has a 0.5% sales tax in addition to the state sales tax; and Seminole county which has only the state sales tax to collect. The state sales tax is 6.0%.

Before beginning "ringing up" the customer purchases, provide the program with a first letter of the county of purchase - V for Volusia and S for Seminole. The program should accept either uppercase or lowercase letters, but any other character should result in asking the user for the county again, repeating until a correct county is provided.

Once a correct county is received, enter the price of the items purchased, stopping collection when a price of \$0.00 is entered. If a negative price is entered, have the user reenter the price until a positive value is entered.

Except for food, all items are taxable. To distinguish, have the user provide an F (uppercase or lowercase) when the item being rung up is food; enter nothing (empty string) if the item is not a food. If anything other than an empty string or "F" is provided, have the user re-enter. If the user enters a price of 0, don't ask for this food designation. Maintain separate totals of food and non-food purchases so that tax can be correctly computed.

When all items are rung-up, compute the total food cost, total non-food cost, the county tax and state tax (separately) on the non-food purchases. Show only the totals which are non-zero, but always show the taxes. Keep all columns aligned regardless of the inputs. See the example below.

```
Which county? (V / S): t
Which county? (V / S): x
Which county? (V / S): v

Price: 1.23
Food?: f

Price: 2.35
Food?:

Price: 3.54
Food?: f

Price: -45.6
Price: -4.56
Price: 4.56
Food?: f

Price: 19.32
Food?:

Price: 11.24
Food?: f

Price: 0

Food purchases:           $    20.57
Non-food purchases:      $    21.67

State sales tax:         $     1.30
County sales tax:       $     0.11

Total:                   $    43.65
```

```
Which county? (V / S): s

Price: 1.23
Food?: f

Price: 2.35
Food?: f

Price: 3.56
Food?: x
Enter F for food items: g
Enter F for food items: f

Price: 0

Food purchases:           $     7.14

State sales tax:         $     0.00
County sales tax:       $     0.00

Total:                   $     7.14
```