

Chapter 3 Purchase Price

Time required: 90 minutes

- Comment each line of code as shown in the tutorials and other code examples.
- Follow all directions carefully and accurately.
- Think of the directions as minimum requirements.

Pseudocode

1. Write pseudocode or TODO for the exercise
2. Submit with the assignment

Requirements

Write a program that will ask the user to enter the amount of a purchase. The program should then compute the state and county sales tax.

- State sales tax is 6 percent
- County sales tax is 1.5 percent

The program should display the amount of the purchase, the state sales tax, the county sales tax, the total sales tax, and the total of the sale (which is the sum of the amount of purchase plus the total sales tax).

Hint: Use the value 0.015 to represent 1.5 percent, and 0.06 to represent 6 percent. Use named constants to represent these numbers. No magic numbers please.

1. Create a Python program named **purchase_price.py** that gets input from the user and prints out the information shown below in the example run.
2. Create variables for all inputs and outputs.
3. Get purchase price from user.
4. If the purchase is over 1000, give the user a 15% discount.
5. If the purchase is over 100, give the user a 10% discount.
6. Calculate the discounted price.
7. Calculate the sales tax based on the discounted price.

8. Round the sales tax calculations to 2 decimal places.

```
state_tax = discounted_purchase_price * STATE_TAX
state_tax = round(state_tax, 2)
```

9. Calculate the total tax.

10. Use F-strings to format the numbers. Tabs can be created with \t

```
print(f"Total Sale: \t${total_sale:,.2f}")
```

11. The ----- between the rows in the example below is created by multiplication.

```
DASHES = 25    # Constant
print(DASHES * "-")
```

Example runs:

```
Enter the price of the purchase: 1001

Purch. Price:   $1,001.00
Discount:       $150.15
-----
Disc. Price:    $850.85
State Tax:      $51.05
County Tax:     $12.76
Total Tax:      $63.81
-----
Total Sale:     $914.66
```

```
Enter the price of the purchase: 101

Purch. Price:   $101.00
Discount:       $10.10
-----
Disc. Price:    $90.90
State Tax:      $5.45
County Tax:     $1.36
Total Tax:      $6.81
-----
Total Sale:     $97.71
```

```
Enter the price of the purchase: 100

Purch. Price:   $100.00
Discount:       $0.00
-----
Disc. Price:    $100.00
State Tax:      $6.00
County Tax:     $1.50
Total Tax:      $7.50
-----
Total Sale:     $107.50
```

Assignment Submission

1. Attach the pseudocode.
2. Attach the program files.
3. Attach screenshots showing the successful operation of the program.
4. Submit in Blackboard.