

Transpara**Tax**

SALES TAX CALCULATOR

CIS129 Final Project
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What is the problem?

- ✓ *Prices in the US are not the out-of-pocket costs*
- ✓ *Sales taxes are not only determined by the state, city, and occasional special sales taxes.*
- ✓ *Sales taxes are NOT included in the price tag on*
- ✓ *Shopping becomes a mental math and research process that is often inaccurate*



What are current solutions?

- ✗ Some policies have been put forward to make prices transparent with the sales tax included (CE Noticias Financieras, English ed., 2025)
 - ∞ Supermarkets say it is a difficult measure to implement
 - ∞ Worry about cultural expectation : we know the price listed is not the final price (Morales, 2025)
 - ∞ Some states have laws against this type of price transparency (Morales, 2025)
- ✗ Online resources for sales tax calculations:
 - <https://salestaxcalculator.net/by-state>
 - ∞ Offers database of state taxes for item calculations
 - ∞ Only sources **AVERAGE** local taxes
 - ∞ Only calculates one item with no quantity modifications
 - ∞ Still requires mental math and research to use!





What is the extent of application?

Other than tax-exempt items (usually medicine and groceries),

EVERY single purchase we make can have a varying amount of tax not provided until “Checkout”!

Seeing the price, and compiling a true cart total can alleviate the mental math and budgeting stress people experience EVERY DAY.

Do you purchase goods and services?

Yes?

YOU can use TransparaTax to make it easier!

What is needed for this program?

Why taxes??

- ✓ The primary aspect of the program is a thorough database of the Cities and Counties and their corresponding sales taxes
 - ★ Best method for this? Dictionary
 - ☐ Cities and Counties are the Keys
 - ☐ Taxes are the values
 - ☐ Data source for the tax values by location: Tax-Rates.org.
- ✓ Secondary aspect is the input variables to collect: county, city, item cost, item quantity, and cart total cost.
- ✓ Calculator for the taxes, prices, and total cost
- ✓ Proper display for ease of use

Solution Design Proposal:

Pseudocode

```
// database for sales tax amounts
Dictionary with City/County:0.00tax

// welcome module
welcome()
    Display welcome message
    Display option for viewing city/county
input options
    Input y/n to view options
    If y then display counties and cities
    Else continue
End module

// tax calculation
// assign tax values for county/city input
Tax grab module()
    Display "enter city or county: In the
case of both choose the city:"
    Input city or county
    Ignore Caps on input
    While loop input verification
    Search tax.Keys with input
    For Key input tax equals value
```

```
Return tax value
End Module
// Calculator module
Tax Calculator()
    While loop for cart feature
        Item counter
        Running total
        Display "Enter the price of item:"
        Input item price
        Display "Enter item quantity:"
        Input item quantity
        Item cost = (item*tax + item)*quantity
        Display item cost (item, tax, and
individual price)
        Display "add to cart?"
        Input Yes or No
        Caps Ignore
        If yes cart total = total + item
        Display counter and running total
        Else total = total
        Display "end session?"
        If yes end while loop
        Display total, counter
        Else continue loop
```



Remaining questions:

Despite the effort I put into this tax transparency calculator, I must say the main question that remains is:

"Why do we need this in the first place?"

Price transparency is something that I personally advocate for as someone who has had all kinds of budget restrictions, purchase requirements, and direct communication with foreigners who are confused about the lack of transparency in America.

"In many countries, sales tax (or VAT) is included in the listed price, so the price on the barcode or tag shows the total amount the consumer will pay. This practice is most common in Europe, where the EU requires all retailers to include VAT." (Morales, 2025).

Although some answers to this question have been presented: difficulty of implementation for policies, worries of consumer reaction, and legal restrictions. I feel these are primarily speculation, and the effort to estimate the outcome of implementation of VAT transparency hasn't been approached simply because this is "how its always been".

Citations

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