Griff’sGreatCoffee IPO

Input: Customer’s name

Coffee selection

Processing: Determine coffee prices

Calculate tip (0%, 15%, 20%)

Apply tax rate of 13%

Output: customer’s name

Coffee price before tax

Amount of tax to be added

Total coffee price (including tip if any)

Thought Process

1. Ask for customer’s First name
2. Ask for customer’s Given name
3. Ask for coffee selection
4. Declare coffee sizes and prices

Small = $3

Medium = $5

Large = $7

ask for tip rate = 0%, 15%, or 20%

Declare Tax rate = 13%

1. Calculate coffee’s tax by multiplying the price of coffee by 0.13
2. Calculate tip on coffee by multiplying the price of coffee by tiprate selected by 0.01
3. Calculate the coffee total by adding result of process 5 and 6 to price of coffee
4. Display Customer’s name
5. Display coffee price before tax
6. Display added tax
7. Display coffee total after tip and tax has been applied

PSEUDOCODE

// Program name: Griff’s Great Coffee

// Purpose: Create a customer bill for Griff’s Great Coffee

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Start

Display “Welcome to Griff’s Great Coffee!”

//Declare variables

Declare Numeric small, medium, or large // coffee selection

Declare String firstName // customer’s first name

Declare String givenName // customer’s given name

Declare String coffeePrice // coffee sizes

Declare Numeric tipRate // tip selected

Declare Numeric taxRate // tax of selected coffee

Declare Numeric tip // tip added to coffee selected

//Get Input from customer

Display “Welcome to Griff’s Great Coffee”

Display” The following are available small coffee: $3, medium coffee: $5, large coffee: $7

Display ”Enter customer’s first name”

Input customer’s firstName

Display “Enter customer’s given name”

Input customer’s givenName

Display “ Enter coffee selected”

Input coffeeSelection

Display “Enter tip if any 0%, 15%, and 20%

Input tipRate

//Process calculations

tip = coffeeSelected (small, medium, or large)\*tipRate\*0.01

tax= coffeeSelected (small, medium, or large)\*0.13

total = coffeeSelected (small, medium, or large)+tip + tax

//Display customer’s bill information

Display” Bill for” +firstName+” sp”+givenName

Display” Coffee price:$”+coffeeSelected(small, medium , or large)

Display” HST:$” +tax

Display” Total Amount Due is $” +total

Display”Not available” when customer selection is not within coffeeSelection

DESKCHECK

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Coffees  Size  Prices | Tax on coffee sizes  ($) | Tip1 Rate at  0%  (%/100) | Tip2 Rate at 15%  (%/100) | Tip3 Rate at 20%  (%/100) | Coffee price before added tax | coffee total with tip1 =  coffeeprice+tax+tip1  ($) | coffee total with tip2 = coffeeprice+tax+tip1  ($) | coffee total with tip3 = coffeeprice+tax+tip1  ($) |
| Small=$3 | 0.13\*3=  0.39 | 0\*3 = / | 0.15\*3=  $0.45 | 0.20\*3=  $0.60 | 3 | 3+0.39+0=  3.39 | 3+0.39+0.45  =3.84 | 3+0.39+0.60  =3.99 |
| medium=$5 | 0.13\*5=  0.65 | 0\*5=/ | 0.15\*5=  $0.75 | 0.20\*5=  $1 | 5 | 5+0.69+0=  5.69 | 5+0.69+0.75  =6.44 | 5+0.65+1  =6.65 |
| Large = $7 | 0.13\*7=  0.91 | 0\*7=/ | 0.15\*7=  $1.05 | 0.20\*7=  $1.4 | 7 | 7+0.91+0=  7.91 | 7+0.91+1.05  =8.96 | 7+0.91+1.4  =9.31 |
| Any other selection | nil | nil | nil | nil | nil | nil | nil | nil |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |