Sales Report

Algorithm

Get customer's number from user

Get customer's name from user

Get sales amount

Get tax code

while the user does not enter 0, 1, or 2 continue the asking/getting tax code

Calculate the sales tax depending of tax code

* If tax code 0, then sales tax equals 0
* If tax code 1, then sales tax equals 3%
* If tax code 2, then sales tax equals 5%

Calculate the total amount due: add sales amount and sales tax

Print “Sales Report”

Print customer number

Print customer name

Print sales amount

Print sales tax

Print the total amount due

Algorithm / Pseudocode

Start program SalesReport

Declare variables

Create a scanner

Prompt the user to enter customer's number

Get customer's number

Prompt the user to enter customer's name

Get customer's name

Prompt the user to enter sales amount

Get sales amount

Prompt the user to enter tax code

Get tax code

While tax code is not equal to 0, 1, 2

Display error message

Prompt the user to enter tax code

Get tax code

End while

if tax code equals 1

salesTax equals salesAmount \* 0.03

else if tax code equals 2

salesTax equals salesAmount \* 0.05

totalAmountDue equals salesAmount + salesTax

display "Sales Report"

display customer number

display customer name

display sales amount

display sales tax

display the total amount due

End of SalesReport program

IPO Diagram

|  |  |  |
| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| customerNumber | receive customerNumber |  |
| customerName | receive customerName |  |
| salesAmount | receive salesAmount |  |
| taxCode | receive taxCode |  |
|  | Calculate salesTax |  |
|  | Calculate totalAmountDue |  |
|  |  | Display heading "Sales Report" |
|  |  | Display customerNumber |
|  |  | Display customerName |
|  |  | Display salesAmount |
|  |  | Display salesTax |
|  |  | Display totalAmountDue |

Test Cases:

1. Test Case 1

Input:

customerNumber: 112233

customerName: Sam Kim

salesAmount: 100

taxCode: 2

Output:

Sales Report:

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Customer Number: 112233

Customer Name: Sam Kim

Sales Amount: $100.00

Sales Tax: $5.00

The total amount due: $105.00

1. Test Case 2

Input:

customerNumber: 10-000888999

customerName: Lisa S. Foster

salesAmount: 1000.11

taxCode: 99, 1

Output:

This program will read a file of sales records and produce a sales report

Please enter the customer number

10-000888999

Please enter the customer name

Lisa S. Foster

Please enter the sales amount

1000.11

Please enter the tax code (0/1/2)

99

You entered invalid tax code

Please enter the tax code (0/1/2)

1

Sales Report:

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Customer Number: 10-000888999

Customer Name: Lisa S. Foster

Sales Amount: $1000.11

Sales Tax: $30.00

The total amount due: $1030.11