**Example 2 of program development cycle (simple)**

**Question**: Write a car salesman program where the user enters the base price of a car. The program adds on extra fees as follows: tax which is 12 % of the base price; licence which is $130; commission which is 8% of the base price if base price less than 2000, and 10%` otherwise. Display the actual price of the car once all the extras are applied. Give the user the option of getting a full printout listing base price, tax, commission and actual price, or simple printout of just the actual price.

Input

|  |  |  |
| --- | --- | --- |
| *VariableName* | *Type* | *Where from* |
| basePrice | float | User - keyboard |
| userOption | string |

Constants

taxRate 🡨 12%

licenceFee 🡨 130

lowCommRate 🡨 8%

highCommRate 🡨 10%

CommBreakPoint 🡨 2000

Output

|  |  |  |
| --- | --- | --- |
| *VariableName* | *format* | *where* |
| actualPrice | Currency (2dp) | screen |
| taxPaid |
| commissionPaid |

Processing

taxPaid 🡨 basePrice \* taxRate

if basePrice < commBreakPoint

commissionPaid 🡨 lowCommRate \* basePrice

else

commissionPaid 🡨 highCommRate \* basePrice

actualPrice 🡨 basePrice + taxPaid + licenceFee + comissionPaid

PseudoCode

Enter the data (basePrice)

Calculate tax paid

Calculate commission paid

Calculate actual price

Display as selected

Testdata

|  |  |  |  |
| --- | --- | --- | --- |
| basePrice | taxPaid | commissionPaid | actualPrice |
| 1000 | 120 | 80 | 1330 |
| 2500 |  |  |  |
| 2000 | 240 | 200 | 2570 |

Testing Plan

Version 1

Enter data and calculate tax paid

Version 2

Calculate commission paid

Version 3

Calculate actual price

Version 4

Output as requested by user