|  |  |  |
| --- | --- | --- |
| Input | Process | Output |
| price  pricingCode :  H  F  T  Q  Z | Case ‘H’ price = price – (price \* 0,5)  Case ‘F’ price = price – (price \* 0,4)  Case ‘T’ price = price – (price \* 0,33)  Case ‘Q’ price = price – (price \* 0,25)  Case ‘Z’ price = price – (price \* 0)  Default | Case ‘H’ Display price  Case ‘F’ Display price  Case ‘T’ Display price  Case ‘Q’ Display price  Case ‘Z’ Display “No Discount” Display price  Default Display “Invalid Pricing Code” |

2540129470 – Jevon Christopher Loanda

**Exercise 1**

Display “No discount”

Read originalPrice, price

pricingCode :

H, F, T, Q, Z

Display “Invalid Pricing Code

Z

Q

T

F

H

pricingCode

**Flow Chart**

price = originalPrice – (originalPrice \* 0)

price = originalPrice – (originalPrice \* 0,25)

price = originalPrice – (originalPrice \* 0,33)

price = originalPrice – (originalPrice \* 0,4)

price = originalPrice – (originalPrice \* 0,5)

Display discount = originalPrice \* 0,25

Display discount = originalPrice \* 0,33

Display discount = originalPrice \* 0,4

Display discount = originalPrice \* 0,5

Display price

Display originalPrice

Display originalPrice

Display price

Display originalPrice

Display price

Display price

Display originalPrice

Display originalPrice

Display price

**Pseudo Code**

START

Declare original price

Read pricing code

CASE OF pricingCode

‘H’ : price = originalPrice – (originalPrice \* 0,5)

Print price; Print originalPrice; Print “discount = originalPrice – (originalPrice \* 0,5)”

‘F’ : price = originalPrice – (originalPrice \* 0,4)

Print price; Print originalPrice; Print “discount = originalPrice – (originalPrice \* 0,4)”

‘T’ : price = originalPrice – (originalPrice \* 0,33)

Print price; Print originalPrice; Print “discount = originalPrice – (originalPrice \* 0,33)”

‘Q’ : price = originalPrice – (originalPrice \* 0,25)

Print price; Print originalPrice; Print “discount = originalPrice – (originalPrice \* 0,25)”

‘Z’ : price = originalPrice – (originalPrice \* 0)

Print price; Print originalPrice; Print “discount = originalPrice – (originalPrice \* 0)”

OTHER : Print “Invalid Pricing Code”;

END CASE

END

**Exercise 2**

|  |  |  |
| --- | --- | --- |
| Input | Process | Output |
| Student records :  name  sex  age  maritalStatus | Read student records  Calculate number of marriedMen, singleMen, marriedWomen, singleWomen  Print number of marriedMen, singleMen, marriedWomen, singleWomen  IF sex == M AND maritalStatus == single AND age > 30 THEN print “Eligible Bachelors Report”  Print name, age | Student Summary Reports:   * marriedMen * singleMen * marriedWomen * singleWomen   eligible\_bachelors\_report |

**Flow Chart**

**Diagram

Description automatically generated**

**Pseudo Code**

Perform\_initial\_processing

Read student\_records

Read name, sex, age, maritalStatus

DO WHILE more records

calculate\_students

read student records

END DO

Print “Student Summary Report

Print marriedMen

Print singleMen

Print marriedWomen

Print singleWomen

END

Perform\_initial\_processing

set marriedMen to 0

set singleMen to 0

set marriedWomen to 0

set singleWomen to 0

END

calculate\_students

calculate\_marriedMen

END

calculate\_marriedMen

IF sex == M AND maritalStatus == married THEN

marriedMen = marriedMen + 1

ELSE

calculate\_singleMen

ENDIF

END

calculate\_singleMen

IF sex == M AND maritalStatus == single THEN

singleMen = singleMen + 1

IF age > 30

Print “Eligible Bachelors Report”

Print name

Print age

ENDIF

ELSE

calculate\_marriedWomen

ENDIF

END

calculate\_marriedWomen

IF sex == F AND maritalStatus == married THEN

marriedWomen = marriedWomen + 1

ELSE

calculate\_singleWomen

ENDIF

END

calculate\_singleWomen

IF sex == F AND maritalStatus == single THEN

singleWomen = singleWomen + 1

ELSE

Print “Error”

ENDIF

END