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Module 6 Assignment - Making decisions using Relational Comparison Operators

SDEV120

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//Initialize Variables

Declare variables: customerAreaCode, customerPhoneNumber, totalTextMessages, monthlyBaseFee, applicableTaxRate, calculatedBill, finalBill, exitCondition, specifiedAreaCode

Set monthlyBaseFee = 5

Set applicableTaxRate = 0.14

Set exitCondition = -1

//Basic Billing

REPEAT:

INPUT customerAreaCode, customerPhoneNumber, totalTextMessages

DISPLAY customerAreaCode, customerPhoneNumber, totalTextMessages

IF totalTextMessages <= 100 THEN:

SET calculatedBill = monthlyBaseFee

ELSE IF totalTextMessages <= 300 THEN:

SET calculatedBill = monthlyBaseFee + (0.03 \* (totalTextMessages - 100))

ELSE:

SET calculatedBill = monthlyBaseFee + (0.03 \* 200) + (0.02 \* (totalTextMessages - 300))

END IF

SET finalBill = calculatedBill + (calculatedBill \* applicableTaxRate)

DISPLAY calculatedBill, finalBill

UNTIL customerAreaCode = exitCondition

//Bill for Text Messages Over 100

REPEAT:

INPUT customerAreaCode, customerPhoneNumber, totalTextMessages

IF totalTextMessages > 100 THEN:

DISPLAY customerAreaCode, customerPhoneNumber, totalTextMessages

IF totalTextMessages <= 300 THEN:

SET calculatedBill = monthlyBaseFee + (0.03 \* (totalTextMessages - 100))

ELSE:

SET calculatedBill = monthlyBaseFee + (0.03 \* 200) + (0.02 \* (totalTextMessages - 300))

END IF

SET finalBill = calculatedBill + (calculatedBill \* applicableTaxRate)

DISPLAY calculatedBill, finalBill

END IF

UNTIL customerAreaCode = exitCondition

//Total Bill Exceeding $10.00

REPEAT:

INPUT customerAreaCode, customerPhoneNumber, totalTextMessages

IF totalTextMessages <= 100 THEN:

SET calculatedBill = monthlyBaseFee

ELSE IF totalTextMessages <= 300 THEN:

SET calculatedBill = monthlyBaseFee + (0.03 \* (totalTextMessages - 100))

ELSE:

SET calculatedBill = monthlyBaseFee + (0.03 \* 200) + (0.02 \* (totalTextMessages - 300))

END IF

SET finalBill = calculatedBill + (calculatedBill \* applicableTaxRate)

IF finalBill > 10 THEN:

DISPLAY customerAreaCode, customerPhoneNumber, totalTextMessages, calculatedBill, finalBill

END IF

UNTIL customerAreaCode = exitCondition

//Bill filtered by Area Code

INPUT specifiedAreaCode

REPEAT:

INPUT customerAreaCode, customerPhoneNumber, totalTextMessages

IF customerAreaCode = specifiedAreaCode THEN:

DISPLAY customerAreaCode, customerPhoneNumber, totalTextMessages

IF totalTextMessages <= 100 THEN:

SET calculatedBill = monthlyBaseFee

ELSE IF totalTextMessages <= 300 THEN:

SET calculatedBill = monthlyBaseFee + (0.03 \* (totalTextMessages - 100))

ELSE:

SET calculatedBill = monthlyBaseFee + (0.03 \* 200) + (0.02 \* (totalTextMessages - 300))

END IF

SET finalBill = calculatedBill + (calculatedBill \* applicableTaxRate)

DISPLAY calculatedBill, finalBill

END IF

UNTIL customerAreaCode = exitCondition