**CSD 1133 – 2023S**

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**1. Point of Sale**

Design a program that will ask the user to enter the unit price and quantity of a purchase. The program should then compute the amount, HST (harmonized Sales Tax), and total amount of the purchase. Assume the HST is 13%. The program should display the amount of the purchase, the HST, the total sales amount (which is the sum of the amount of purchase plus the HST).  
Then the user input the payment amount then the system calculates and displays the change.

Answer:

**Pseudocode:**

// Declare all the necessary variables

Declare float unit\_price

Declare integer total\_quantity

Declare float total\_before\_tax

Declare float tax\_amount

Declare float total\_after\_tax

Declare float payment\_amount

Declare float change\_amount

// Ask user to input unit price and store value in unit\_price variable

Display “Enter the unit price.”

Read unit\_price

// Ask user to input the total quantity and store in total\_quantity variable

Display “Enter the total quantity.”

Read total\_quantity

// Calculate the tax amount and the total amount before and after tax

total\_before\_tax = unit\_price \* total\_quantity

tax\_amount = total\_amount \* 0.13

total\_after\_tax = total\_before\_tax + tax\_amount

// Show the calculated values of tax amount, total amount before and after tax

Display "Total amount before tax is:" + total\_before\_tax

Display "Total tax amount is:" + tax\_amount

Display "Total amount after tax is:" + total\_after\_tax

// Ask user to imput the payment amount

Display "Enter your payment amount."

Read payment\_amount

// Calculate and display the change amount

change\_amount = payment\_amount - total\_after\_tax

Display "Your change amount is:" + change\_amount

**Flow chart:**

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Description automatically generated