

CSD 1133 – 2023S

Student ID: c0901142

Student Name: Roshan Shrestha

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 input 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:

