

Step 4: Pseudocode

Pseudocode sketch:

```
IF item in menu THEN
    quantity ← input quantity
    add (item, quantity, price) to cart
ELSE
    show "Item not found"

ELSE IF choice == "3" THEN
    display cart

ELSE IF choice == "4" THEN
    subtotal ← sum of (price × quantity)
    tax ← subtotal × 0.10
    ask if student
    discount ← subtotal × 0.05 if student
    IF cart has both food and drink THEN
        apply meal deal
    total ← subtotal + tax - discount
    print receipt
    BREAK

ELSE IF choice == "5" THEN
    BREAK

ELSE
    show "Invalid selection"
END WHILE
END
```

Step. 4-2: Explanation of Pseudocode Sketch

1. **menu** ← {item: (price, category)}
→ A dictionary storing all available items with their price and category (e.g., drink or food).
2. **cart** ← []
→ An empty list to store selected items, including name, quantity, and price.
3. **WHILE True**
→ Starts an infinite loop to show the main menu until the user chooses to exit or checkout.
4. **display menu options (1–5)**
→ Shows the main menu: (1) Show menu, (2) Add item, (3) View cart, (4) Checkout, (5) Exit.
5. **choice** ← **user input**
→ Takes the user's selection as input.
6. **IF choice == "1"**
→ Displays all menu items with prices and categories.
7. **ELSE IF choice == "2"**
→ Asks user for item name and quantity, then adds it to the cart if it's a valid item.
8. **ELSE IF choice == "3"**
→ Shows the current contents of the cart.
9. **ELSE IF choice == "4"**
→ Calculates subtotal, tax, and checks for:
 - **Student discount (5%)**
 - **Meal deal** if both food and drink are in the cart
→ Then, prints the receipt and ends the program.
10. **ELSE IF choice == "5"**
→ Ends the program without printing a receipt.
11. **ELSE** → **Invalid selection**
→ Handles any wrong input by notifying the user.