# Muhammad Athar Abbas

**SP25-BSE-082**

**Section A**

**ASSIGNMENT NO 3**

**Pseudocode :**

**Display menu items and prices**

Ask user for their name

Ask user how many items they want to purchase

Validate input to ensure it's a number

Initialize total\_cost to 0 and ordered\_items as an empty list

Repeat until the user has entered the correct number of valid items:

a. Ask for item name

b. If item is valid:

Add item price to total\_cost

Append item to ordered\_items

c. Else:

Inform user the item is unavailable

Use continue to retry input

Based on total\_cost:

If < 200: discount = 0

If 200 to 500: discount = 10%

If > 500: discount = 20%

Calculate final\_amount = total\_cost - discount

Call print\_bill function with all required details

Display name, total items, original cost, discount, and final amount

[Start] -->

Display Menu -->

Get Customer Name -->

Get Number of Items -->

Is input valid? --No--> Prompt Again -->

--Yes-->

[Loop Start: i = 0 to num\_items] -->

Ask for Item Name -->

Is Item Available? --No--> Show Error Message & Retry -->

--Yes--> Add Price to Total -->

Add to Ordered List -->

[Loop Ends] -->

Check Total Cost -->

Apply Discount -->

Calculate Final Amount -->

Call print\_bill() -->

[Display Bill] -->

**In Code:**

**START**

**// 1. Customer Details Input**

PRINT "Enter your name:"

INPUT name

PRINT "Enter number of items you want to purchase:"

INPUT num\_items

WHILE input is not a number:

PRINT "Invalid input. Please enter a number:"

INPUT num\_items

// 2. Menu & Prices

menu\_items = ["Burger", "Fries", "Tea", "Coffee", "Sandwich"]

menu\_prices = [100, 50, 20, 30, 60]

PRINT "Menu:"

FOR i FROM 0 TO LENGTH(menu\_items) - 1:

PRINT menu\_items[i], " - ₹", menu\_prices[i]

// 3. Order Input & Cost Calculation

total\_cost = 0

ordered\_items = []

i = 0

WHILE i < num\_items:

PRINT "Enter item name:"

INPUT item\_name

IF item\_name is in menu\_items:

index = position of item\_name in menu\_items

total\_cost = total\_cost + menu\_prices[index]

ADD item\_name to ordered\_items

i = i + 1

ELSE:

PRINT "Item not available. Try again."

CONTINUE

// 4. Offer Based on Total

IF total\_cost < 200:

discount = 0

ELSE IF total\_cost <= 500:

discount = 0.10 \* total\_cost

ELSE:

discount = 0.20 \* total\_cost

final\_amount = total\_cost - discount

// 5. Function to Print Bill

FUNCTION print\_bill(name, ordered\_items, total\_cost, discount, final\_amount):

PRINT "----- Final Bill -----"

PRINT "Name:", name

PRINT "Items Ordered:", ordered\_items

PRINT "Original Cost: ₹", total\_cost

PRINT "Discount: ₹", discount

PRINT "Amount to Pay: ₹", final\_amount

// Call the function

CALL print\_bill(name, ordered\_items, total\_cost, discount, final\_amount)

# Flowchart:

