Weight 10 %   **Core Portfolio III**

Monk's Cafe

Purpose – to code a program which creates a restaurant bill

Topics of Evaluation

1. All topics from Core Portfolio 1 and II
2. Modularization of code
3. Managing arrays

Create a working maintainable programming solution using topics 1-3 above, to create a restaurant bill using programming techniques demonstrated in class.

Requirements

1. Create a model for the program by drawing a flowchart or writing the pseudo code for the program.
2. Create a test plan and proof of output
3. Enter the code to implement your model.
4. Test your code with your test plan. If you discover mistakes, correct the code and model, and execute the test plan again.

Specifications

Inputs

Using the following menu:
1. Add Item
2. Remove Item
3. Add tip (Percentage or Amount)
4. Display Bill
5. Clear All
6. Exit

Allow the user to enter a description and price (dollars and cents) for each item
Select and remove an item
Allow the user to add a tip as either a percentage of the total bill, or as a flat amount

Outputs

Description and price of each item on the bill
Net Amount
Total GST
Tip
Total Amount

Additional Requirements

Use two parallel arrays (not C# collections)

You must code at least the following methods:

double GetDouble(string prompt)

double CalculateNetAmount (double[ ] itemPrices, int size)

double GetTip(double netAmount)

double CalculateGST(double netAmount)

double CalculateTotalAmount(double netAmount)

void DisplayBill(params…)

You may choose to code additional methods

Submission

You may demonstrate your application to your instructor for comments before submitting (the instructor will **NOT** look at it for marking)**.**

A rubric will be supplied showing evaluation for the final submission.

Your instructor will inform you on how/where your final solution should be submitted.

Core 3 Marking Guide

Component	Worth	Graded
Menu & Input		
Menu functions as expected and all entries are validated	2	
Add item successful	2	
Delete item successful	3	
Add tip successful	2	
Output		
All items listed with prices	3	
Receipt totals complete and accurate (minus 1 per error)	2	
Clear bill	1	
Total	**15**	
Deductions (max 5)		
Minus 1 mark for source code formatting		
Minus 1 mark for not following class standards for naming conventions		
Minus up to 3 marks for unspecified runtime errors		