



**FACULTY OF COMPUTING AND INFORMATION
TECHNOLOGY**

Department of Computing and Information Technology

Academic Year 2023/2024

**AACS1564 Problem Solving and Programming
Assignment**

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Total Marks	:	/100	/40
Grade	:		

Declaration of Originality

I declare that this assignment is free from all forms of plagiarism and for all intents and purposes in my own work. I understand that I will be penalized if I have not complied with TAR UC's Plagiarism policy.

Signature: MICHELLE Name: MICHELLE CHIN KOH YING Date: 24/09/2023

AACS1564 Problem Solving and Programming (Assignment Rubric) – Assignment

CLO	Attribute/Sub Attribute and Criteria	Weight (%)	Attainment Scale					Student Attainment		
			Very Weak - 1	Weak - 2	Fair - 3	Good - 4	Very Good - 5	Level	Marks	CLO Marks
2 O L C	Problem Solving/Problem Identification – Solution Design <ul style="list-style-type: none"> • Method of solution • Constant and variables Overall program design 	20%	Not able to design a solution (flowchart or pseudocode) for the problem. No constant and variables presented.	Able to design solution (flowchart or pseudocode) with major logical errors for the problem. Explanation on constant and variables are incomplete.	Able to design solution (flowchart or pseudocode) with minor logical errors for the problem. Explanation on constant and variables are incomplete.	Able to design solution (flowchart or pseudocode) for the problem. Constant and variables are explained and presented.	Able to design an efficient solution (flowchart or pseudocode) for the problem. Constant and variables are well explained and presented.			
	Problem Solving/Analysis – Process Testing & Outputs <ul style="list-style-type: none"> • Test cases (at least 3) and presented in table form • Output screenshot for each of the test cases 	10%	Not able to perform process testing. No screenshot on the output.	Able to perform process testing with less than 3 test cases. No presentation on the test cases. Incomplete output screenshots.	Able to perform process testing with less than 3 test cases. Test cases are presented in table form. Incomplete output screenshots.	Able to perform process testing and generate at least 3 test cases. All the test cases are presented in table form and supported by output screenshots.	Able to perform process testing and generate all possible test cases. All test cases are well presented in table form and supported by output screenshots.			
	Problem Solving/Application –Beginning and Ending of the System <ul style="list-style-type: none"> • System Logo • Display menu with prices • Ending Message 	5%	Not able to display system logo, menu and prices, and ending message.	Display incomplete system logo, available menu and prices, and ending message without proper arrangement.	Display complete system logo, available menu and prices, and ending message without proper arrangement.	Display complete system logo, available menu and prices, and ending message with proper arrangement.	Display complete system logo, available menu and prices, and ending message with clarity, detailed and proper arrangement.			

2 O L C	Problem Solving/Application – User Input and Error Handling <ul style="list-style-type: none"> • User input • Error handling (out of range) 	5%	Not able to obtain user input. No error handling.	Able to obtain part of the user input. No error handling.	Able to obtain user input. Minor error handling.	Able to obtain user input with proper error handling.	Able to obtain user input with proper error handling for required input with proper error messages.			
	Problem Solving/Application –Purchasing Process <ul style="list-style-type: none"> • Process bill details (calculation) 	10%	No bill calculation and payment processes.	Able to perform bill calculation and payment processes.	Able to perform bill calculation and payment processes. (with minor	Able to perform bill calculation and payment processes.	Able to perform bill calculation and payment processes and produce accurate			

	• Payment process (pay amount and balance)			(with major error)	error)		results with proper formatting.			
	Problem Solving/Application – Daily Sales Report • Accumulation of required totals – accuracy • Layout/Format – tidiness • Sales by category	15%	Not able to generate Daily Sales Report	Able to generate Daily Sales Report. Inaccurate information (Major). No report format and arrangement t.	Able to generate Daily Sales Report. Inaccurate information (Minor). Improper report format and arrangement .	Able to generate Daily Sales Report with accurate information. Improper format and arrangement.	Able to generate Daily Sales Report with accurate information, tidy and neat format.			
	Problem Solving/Synthesis – Programming Skills • Looping • Condition • User defined function • Use of appropriate comments	10%	Improper structure of programming codes.	Proper structure of programming code without comments. No user function is applied	Proper structure of programming code without comments. Minor user defined function is applied.	Proper structure of programming code with minor comments. User defined function is applied.	Well structure of programming code with comments to increase the clarity. Effectively used of user defined function.			

	Problem Solving/Synthesis – Additional Feature	5%	No additional feature added to the system.	Less significant of additional feature is added to the system.	Additional feature is added to the system.	Useful and practical additional feature added to the system.	Excellent, useful and practical additional feature added to the system.			
3 O L C	Inquisitive Mind – Initiative in Completing Task	10%	No initiative to complete a task.	Demonst rate limited initiative in completing a task.	Demonstrate moderate initiative in completing a task.	Demonstrate good initiative in completing a task.	Demonstrate excellent initiative in completing a task.			
	Inquisitive Mind – Effort in Completing Report	10%	No effort to complete the report.	Minimal effort to complete the report.	Sufficient effort to complete the report.	Good effort to complete the report.	Excellent effort to complete the report.			
	Total	100%								

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Purpose of the system

The Covid-19 pandemic has significantly reduced the average sales of multiple industries. In converse, the food delivery restaurants have increase the sales during this pandemic period. H&S Restaurant is one of the restaurant which sales various meals and provides delivery services to the customers. Recently, the owner, Mr. Chris found that there is difficulty for manually recording each customer order. He needs a system to efficiently bill customers and keep records of the meals sold.

As a system developer, i am assigned by the manager to develop a simple Meal Billing System that will enable the H&S Restaurant to issue the bill to their customer and produce Daily Meal Sales Report.

Method of Solution (Pseudocode)

1. Start

// Function to display logo

2. Display the logo

// Function to display the menu

3. Display the food and drinks menu with prices

// Function to take customer order & calculate function

4. Prompt the user to enter their order

(a) Prompt the user to enter their order until the user enters 0

(b) If mealtype is 0

(c) Display "Thank You, Pls Come Again!!! " and exit the loop

(d) Else prompt the user for the quantity

(e) Calculate subtotal, SST amount, and total amount for the order

(f) Display the order details including subtotal, SST amount, and total amount

(g) Prompt the user for the amount paid

(h) Calculate and display the change if the payment is sufficient

(i) If the amount is not sufficient display "Insufficient Payment. Please Pay The Correct Amount. "

(j) Loop until Amount Paid is sufficient

(k) Update total sales, total SST collected, and total customers

// Function for customization (Additional feature)

5. Prompt the user if the customer want to customize their order

(a) If yes

(b) Prompt the user to enter customization requests until they type "done"

(c) Display the customization in the order details

(d) If no

(e) Display default customization and end the loop

// Function to display daily sales report

6. Display the daily meal sales report including total customers, total sales, total SST collected, and total amount collected

7. Display "End Of The Day!!!"

8. End

Additional feature

I have introduced a new feature named Item Customization, allowing customers to tailor their orders based on preferences. This includes options such as adding extra toppings, specifying cooking preferences (e.g., well-done or medium-rare for steaks), and requesting specific ingredients to accommodate dietary restrictions. This feature proves particularly useful when customers have allergies or specific culinary requirements.

Furthermore, to enhance program readability and user experience, I have implemented a screen-clearing feature. After each interaction, the screen is cleared, providing a clean interface and making the program more user-friendly.

Program Testing & Outputs

Test Case 1: Normal Order Test

- Select a food or a drink.
- Order a reasonable quantity for each.
- Ensure the calculations (SST, subtotal, total amount, change) are accurate.

Inputs	Outputs / Expected Results
--------	----------------------------

Scenario	Meal Type	Qty	Payment	Meal Name	SST	Subtotal	Total Amount	Change
1.	1	2	RM20	Nasi Lemak	RM1.80	RM18.00	RM19.80	RM0.20
2.	6	6	RM100	Grilled Chicken Chop	RM6.60	RM66.00	RM72.60	RM27.40
3.	10	7	RM100	Vanilla Milkshake	RM7.63	RM76.30	RM83.93	RM16.07

Scenario 1

C:\Users\User\source\repos\A

+

▼

MMMMEEEENNNNUUUU
MMMEEE
MMMEEEEE
MMMEEE
MMMEEE
MMMEEE
MMUUUU

FOOD

1 - Nasi LemakRM 9.00
2 - Chicken RiceRM 8.00
3 - Masala DosaRM 6.00
4 - HamburgerRM 5.00
5 - Fish & ChipsRM12.00
6 - Grilled Chicken ChopRM11.00
7 - Grilled Lamb ChopRM25.00

DRINKS

8 - Nescafe LatteRM 4.90
9 - Matcha LatteRM 5.90
10 - Vanilla MilkshakeRM10.90
11 - Matcha MilkshakeRM11.90

Please enter your order (Enter 0 to exit):
1
Quantity: 2

Order Details

Order: Nasi Lemak
Quantity: 2
Subtotal: RM 18.00
SST (10.00%): RM 1.80
Total Amount: RM 19.80
Enter Amount Paid: RM 20
Change: RM 0.20
Please enter your order (Enter 0 to exit):
|

Scenario 2

C:\Users\User\source\repos\A

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MMMMEEEENNNNUUUU
MMMEEE
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MMMEEE
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MMMEEE
MMUUUU

FOOD

1 - Nasi LemakRM 9.00
2 - Chicken RiceRM 8.00
3 - Masala DosaRM 6.00
4 - HamburgerRM 5.00
5 - Fish & ChipsRM12.00
6 - Grilled Chicken ChopRM11.00
7 - Grilled Lamb ChopRM25.00

DRINKS

8 - Nescafe LatteRM 4.90
9 - Matcha LatteRM 5.90
10 - Vanilla MilkshakeRM10.90
11 - Matcha MilkshakeRM11.90

Please enter your order (Enter 0 to exit):
6
Quantity: 6

Order Details

Order: Grilled Chicken Chop
Quantity: 6
Subtotal: RM 66.00
SST (10.00%): RM 6.60
Total Amount: RM 72.60
Enter Amount Paid: RM 100
Change: RM 27.40
Please enter your order (Enter 0 to exit):
|

Scenario 3

C:\Users\User\source\repos\A

+

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MMMMEEEENNNNUUUU
MMMEEE
MMMEEEEE
MMMEEE
MMMEEE
MMMEEE
MMUUUU

FOOD

1 - Nasi LemakRM 9.00
2 - Chicken RiceRM 8.00
3 - Masala DosaRM 6.00
4 - HamburgerRM 5.00
5 - Fish & ChipsRM12.00
6 - Grilled Chicken ChopRM11.00
7 - Grilled Lamb ChopRM25.00

DRINKS

8 - Nescafe LatteRM 4.90
9 - Matcha LatteRM 5.90
10 - Vanilla MilkshakeRM10.90
11 - Matcha MilkshakeRM11.90

Please enter your order (Enter 0 to exit):
10
Quantity: 7

Order Details

Order: Vanilla Milkshake
Quantity: 7
Subtotal: RM 76.30
SST (10.00%): RM 7.63
Total Amount: RM 83.93
Enter Amount Paid: RM 100
Change: RM 16.07
Please enter your order (Enter 0 to exit):
|

Test Case 2: Invalid Order

- Enter an invalid order choice (e.g., a number outside the valid range).
- Confirm that the program handles this and prompts for a valid order.

Inputs	Outputs / Expected Results
--------	----------------------------

Scenario	Meal Type	Display
1.	-1	Invalid Order
2.	18	Invalid Order
3.	150	Invalid Order
4.	-349	Invalid Order

Scenario 1

```
C:\Users\User\source\repos\A X + v

MM MM EEEEE NN NN UU UU
MMM MMM EE NNN NN UU UU
MM M M MM EEEEE NN NN NN UU UU
MM M MM EE NN NN NN UU UU
MM M MM EE NN NNN UU UU
MM MM EEEEE NN NN UUU

-----
FOOD
-----
1 - Nasi Lemak RM 9.00
2 - Chicken Rice RM 8.00
3 - Masala Dosa RM 6.00
4 - Hamburger RM 5.00
5 - Fish & Chips RM12.00
6 - Grilled Chicken Chop RM11.00
7 - Grilled Lamb Chop RM25.00

-----
DRINKS
-----
8 - Nescafe Latte RM 4.90
9 - Matcha Latte RM 5.90
10 - Vanilla Milkshake RM10.90
11 - Matcha Milkshake RM11.90

Please enter your order (Enter 0 to exit):
-1
Invalid Order
Please enter your order (Enter 0 to exit):
|
```

Scenario 2

```
C:\Users\User\source\repos\A X + v

MMM MMM EE NNN NN UU UU
MM M M MM EEEEE NN NN NN UU UU
MM M MM EE NN NN NN UU UU
MM M MM EE NN NNN UU UU
MM MM EEEEE NN NN UUU

-----
FOOD
-----
1 - Nasi Lemak RM 9.00
2 - Chicken Rice RM 8.00
3 - Masala Dosa RM 6.00
4 - Hamburger RM 5.00
5 - Fish & Chips RM12.00
6 - Grilled Chicken Chop RM11.00
7 - Grilled Lamb Chop RM25.00

-----
DRINKS
-----
8 - Nescafe Latte RM 4.90
9 - Matcha Latte RM 5.90
10 - Vanilla Milkshake RM10.90
11 - Matcha Milkshake RM11.90

Please enter your order (Enter 0 to exit):
18
Invalid Order
Please enter your order (Enter 0 to exit):
|
```

Scenario 3

```
C:\Users\User\source\repos\A X + v

MMM MMM EE NNN NN UU UU
MM M M MM EEEEE NN NN NN UU UU
MM M MM EE NN NN NN UU UU
MM M MM EE NN NNN UU UU
MM MM EEEEE NN NN UUU

-----
FOOD
-----
1 - Nasi Lemak RM 9.00
2 - Chicken Rice RM 8.00
3 - Masala Dosa RM 6.00
4 - Hamburger RM 5.00
5 - Fish & Chips RM12.00
6 - Grilled Chicken Chop RM11.00
7 - Grilled Lamb Chop RM25.00

-----
DRINKS
-----
8 - Nescafe Latte RM 4.90
9 - Matcha Latte RM 5.90
10 - Vanilla Milkshake RM10.90
11 - Matcha Milkshake RM11.90

Please enter your order (Enter 0 to exit):
150
Invalid Order
Please enter your order (Enter 0 to exit):
|
```

Scenario 4

```
C:\Users\User\source\repos\A X + v

MMM MMM EE NNN NN UU UU
MM M M MM EEEEE NN NN NN UU UU
MM M MM EE NN NN NN UU UU
MM M MM EE NN NNN UU UU
MM MM EEEEE NN NN UUU

-----
FOOD
-----
1 - Nasi Lemak RM 9.00
2 - Chicken Rice RM 8.00
3 - Masala Dosa RM 6.00
4 - Hamburger RM 5.00
5 - Fish & Chips RM12.00
6 - Grilled Chicken Chop RM11.00
7 - Grilled Lamb Chop RM25.00

-----
DRINKS
-----
8 - Nescafe Latte RM 4.90
9 - Matcha Latte RM 5.90
10 - Vanilla Milkshake RM10.90
11 - Matcha Milkshake RM11.90

Please enter your order (Enter 0 to exit):
-349
Invalid Order
Please enter your order (Enter 0 to exit):
|
```

Test Case 3: Customization

- Choose a food or a drink.
- Option for customization for both.
- Ensure the customization details are displayed correctly in the order details.

Inputs			Outputs / Expected Results	
Scen ario	Meal Type	y/n Y/N	Customization	Display
1.	5	y	<ul style="list-style-type: none">● extra mayo● extra lemon slices● done	Customization: <ul style="list-style-type: none">● extra mayo● extra lemon slices
2.	3	Y	extra spicy	Customization: extra spicy
3.	7	n	-	Customization: -
4.	9	N	-	Customization: -

Scenario 1

```
C:\Users\User\source\repos\A  X + v

-----
8 - Nescafe Latte          RM 4.90
9 - Matcha Latte           RM 5.90
10 - Vanilla Milkshake     RM10.90
11 - Matcha Milkshake      RM11.90

Please enter your order (Enter 0 to exit):
5
Quantity: 1
-----

Order Details
-----

Order: Fish & Chips
Quantity: 1
Subtotal: RM 12.00
SST (10.00%): RM 1.20
Total Amount: RM 13.20
Enter Amount Paid: RM 15
Change: RM 1.80
Please enter your order (Enter 0 to exit):
0

Thank You, Pls Come Again!!!
Would you like to customize your order? (y/n): y
Enter your customization requests (Enter 'done' when finished) :
- extra mayo
- extra lemon slices
- done
Customization:
extra mayo
extra lemon slices

Press any key to continue . . . |
```

Scenario 2

```
C:\Users\User\source\repos\A  X + v

-----
DRINKS
-----
8 - Nescafe Latte          RM 4.90
9 - Matcha Latte           RM 5.90
10 - Vanilla Milkshake     RM10.90
11 - Matcha Milkshake      RM11.90

Please enter your order (Enter 0 to exit):
3
Quantity: 1
-----

Order Details
-----

Order: Masala Dosa
Quantity: 1
Subtotal: RM 6.00
SST (10.00%): RM 0.60
Total Amount: RM 6.60
Enter Amount Paid: RM 10
Change: RM 3.40
Please enter your order (Enter 0 to exit):
0

Thank You, Pls Come Again!!!
Would you like to customize your order? (y/n): Y
Enter your customization requests (Enter 'done' when finished) :
- extra spicy
- done
Customization:
extra spicy

Press any key to continue . . . |
```

Scenario 3

```
C:\Users\User\source\repos\A  X + v

5 - Fish & Chips          RM12.00
6 - Grilled Chicken Chop RM11.00
7 - Grilled Lamb Chop    RM25.00

-----
DRINKS
-----
8 - Nescafe Latte          RM 4.90
9 - Matcha Latte           RM 5.90
10 - Vanilla Milkshake     RM10.90
11 - Matcha Milkshake      RM11.90

Please enter your order (Enter 0 to exit):
7
Quantity: 1
-----

Order Details
-----

Order: Grilled Lamb Chop
Quantity: 1
Subtotal: RM 25.00
SST (10.00%): RM 2.50
Total Amount: RM 27.50
Enter Amount Paid: RM 50
Change: RM 22.50
Please enter your order (Enter 0 to exit):
0

Thank You, Pls Come Again!!!
Would you like to customize your order? (y/n): n

Customization: -
Press any key to continue . . . |
```

Scenario 4

```
C:\Users\User\source\repos\A  X + v

-----
DRINKS
-----
8 - Nescafe Latte          RM 4.90
9 - Matcha Latte           RM 5.90
10 - Vanilla Milkshake     RM10.90
11 - Matcha Milkshake      RM11.90

Please enter your order (Enter 0 to exit):
9
Quantity: 1
-----

Order Details
-----

Order: Matcha Latte
Quantity: 1
Subtotal: RM 5.90
SST (10.00%): RM 0.59
Total Amount: RM 6.49
Enter Amount Paid: RM 10
Change: RM 3.51
Please enter your order (Enter 0 to exit):
0

Thank You, Pls Come Again!!!
Would you like to customize your order? (y/n): N

Customization: -
Press any key to continue . . . |
```

Test Case 4: Insufficient Payment

- Select a food or a drink.
- Choose a quantity for each that results in a total amount greater than what you provide as payment.
- Verify that the program handles insufficient payment appropriately.

Inputs				Outputs / Expected Results			
Scen ario	Meal Type	Qty	Payment	SST	Subtotal	Total Amount	Display
1.	4	4	RM9	RM2.00	RM20.00	RM22.00	Insufficient Payment. Please Pay The Correct Amount.
2.	11	5	RM60	RM5.95	RM59.50	RM65.45	Insufficient Payment. Please Pay The Correct Amount.
3.	2	8	RM0	RM6.40	RM64.00	RM70.40	Insufficient Payment. Please Pay The Correct Amount.

Scenario 1

```
C:\Users\User\source\repos\A X + v

FOOD
-----
1 - Nasi Lemak           RM 9.00
2 - Chicken Rice         RM 8.00
3 - Masala Dosa           RM 6.00
4 - Hamburger            RM 5.00
5 - Fish & Chips          RM12.00
6 - Grilled Chicken Chop RM11.00
7 - Grilled Lamb Chop     RM25.00
-----

DRINKS
-----
8 - Nescafe Latte        RM 4.90
9 - Matcha Latte          RM 5.90
10 - Vanilla Milkshake   RM10.90
11 - Matcha Milkshake     RM11.90
-----

Please enter your order (Enter 0 to exit):
4
Quantity: 4
-----

Order Details
-----
Order: Hamburger
Quantity: 4
Subtotal: RM 20.00
SST (10.00%): RM 2.00
Total Amount: RM 22.00
Enter Amount Paid: RM 9
Insufficient Payment. Please Pay The Correct Amount.

Enter Amount Paid: RM |
```

Scenario 2

```
C:\Users\User\source\repos\A X + v

2 - Chicken Rice           RM 8.00
3 - Masala Dosa             RM 6.00
4 - Hamburger              RM 5.00
5 - Fish & Chips            RM12.00
6 - Grilled Chicken Chop   RM11.00
7 - Grilled Lamb Chop      RM25.00
-----

DRINKS
-----
8 - Nescafe Latte          RM 4.90
9 - Matcha Latte            RM 5.90
10 - Vanilla Milkshake     RM10.90
11 - Matcha Milkshake       RM11.90
-----

Please enter your order (Enter 0 to exit):
11
Quantity: 5
-----

Order Details
-----
Order: Matcha Milkshake
Quantity: 5
Subtotal: RM 59.50
SST (10.00%): RM 5.95
Total Amount: RM 65.45
Enter Amount Paid: RM 60
Insufficient Payment. Please Pay The Correct Amount.

Enter Amount Paid: RM |
```

Scenario 3

```
C:\Users\User\source\repos\A X + v

FOOD
-----
1 - Nasi Lemak           RM 9.00
2 - Chicken Rice         RM 8.00
3 - Masala Dosa           RM 6.00
4 - Hamburger            RM 5.00
5 - Fish & Chips          RM12.00
6 - Grilled Chicken Chop RM11.00
7 - Grilled Lamb Chop     RM25.00
-----

DRINKS
-----
8 - Nescafe Latte        RM 4.90
9 - Matcha Latte          RM 5.90
10 - Vanilla Milkshake   RM10.90
11 - Matcha Milkshake     RM11.90
-----

Please enter your order (Enter 0 to exit):
2
Quantity: 8
-----

Order Details
-----
Order: Chicken Rice
Quantity: 8
Subtotal: RM 64.00
SST (10.00%): RM 6.40
Total Amount: RM 70.40
Enter Amount Paid: RM 0
Insufficient Payment. Please Pay The Correct Amount.

Enter Amount Paid: RM |
```

Test Case 5: Daily Sales Report

- Run multiple orders as in the above test cases.
- Choose to exit (enter "0") when done.
- Display the daily sales report to ensure that it shows the correct total customers, total sales, total SST collected, and total amount collected.

Inputs						Outputs / Expected Results			
Scen ario	Meal Type	Qty	Payment	Mealty pe	n N	Total Custom ers	Total Sales	Total SST Collected	Total Amount Collected
1.	0	-	-	0	n	0	RM0.00	RM0.00	RM0.00
2.	- 1 - 2 - 5 - 9 - 11	- 1 - 4 - 5 - 2 - 3	- RM10 - RM100 - RM100 - RM20 - RM50	0	n	5	RM148.50	RM14.85	RM163.35
3.	- 7 - 3	- 2 - 6	- RM60 - RM50	0	N	2	RM86.00	RM8.60	RM94.60

Scenario 1

```
C:\Users\User\source\repos\A  X + v

MM      MM      EEEEE  NN      NN      UU      UU
MMM     MMM     EE      NNN     NN      UU      UU
MM M M MM      EEEEE  NN NN   NN      UU      UU
MM  M  MM      EE      NN   NN NN      UU      UU
MM  M  MM      EE      NN      NNN     UU      UU
MM      MM      EEEEE  NN      NN      UUU

-----
                        FOOD
-----
1 - Nasi Lemak                      RM 9.00
2 - Chicken Rice                    RM 8.00
3 - Masala Dosa                      RM 6.00
4 - Hamburger                       RM 5.00
5 - Fish & Chips                     RM12.00
6 - Grilled Chicken Chop            RM11.00
7 - Grilled Lamb Chop               RM25.00

-----
                        DRINKS
-----
8 - Nescafe Latte                    RM 4.90
9 - Matcha Latte                     RM 5.90
10 - Vanilla Milkshake               RM10.90
11 - Matcha Milkshake                RM11.90

Please enter your order (Enter 0 to exit):
0

Thank You, Pls Come Again!!!
Would you like to customize your order? (y/n): n

Customization: -
Press any key to continue . . . |
```

```
Microsoft Visual Studio Debug  X + v

-----
Daily Meal Sales Report
-----
Total Customers : 0
Total Sales: RM 0.00
Total SST Collected: RM 0.00
Total Amount Collected: RM 0.00

End Of The Day!!!

C:\Users\User\source\repos\Assignment\x64\Debug\Assignment.exe (process 20228) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . . |
```

Scenario 2

C:\Users\User\source\repos\A

8 - Nescafe Latte

RM 4.90

9 - Matcha Latte

RM 5.90

10 - Vanilla Milkshake

RM10.90

11 - Matcha Milkshake

RM11.90

Please enter your order (Enter 0 to exit):

1

Quantity: 1

Order Details

Order: Nasi Lemak

Quantity: 1

Subtotal: RM 9.00

SST (10.00%): RM 0.90

Total Amount: RM 9.90

Enter Amount Paid: RM 10

Change: RM 0.10

Please enter your order (Enter 0 to exit):

2

Quantity: 4

Order Details

Order: Chicken Rice

Quantity: 4

Subtotal: RM 32.00

SST (10.00%): RM 3.20

Total Amount: RM 35.20

Enter Amount Paid: RM 100

Change: RM 64.80

Please enter your order (Enter 0 to exit):

5

Quantity: 5

C:\Users\User\source\repos\A

Change: RM 64.80

Please enter your order (Enter 0 to exit):

5

Quantity: 5

Order Details

Order: Fish & Chips

Quantity: 5

Subtotal: RM 60.00

SST (10.00%): RM 6.00

Total Amount: RM 66.00

Enter Amount Paid: RM 100

Change: RM 34.00

Please enter your order (Enter 0 to exit):

9

Quantity: 2

Order Details

Order: Matcha Latte

Quantity: 2

Subtotal: RM 11.80

SST (10.00%): RM 1.18

Total Amount: RM 12.98

Enter Amount Paid: RM 20

Change: RM 7.02

Please enter your order (Enter 0 to exit):

11

Quantity: 3

Order Details

Order: Matcha Milkshake

Quantity: 3

C:\Users\User\source\repos\A

Change: RM 34.00

Please enter your order (Enter 0 to exit):

9

Quantity: 2

Order Details

Order: Matcha Latte

Quantity: 2

Subtotal: RM 11.80

SST (10.00%): RM 1.18

Total Amount: RM 12.98

Enter Amount Paid: RM 20

Change: RM 7.02

Please enter your order (Enter 0 to exit):

11

Quantity: 3

Order Details

Order: Matcha Milkshake

Quantity: 3

Subtotal: RM 35.70

SST (10.00%): RM 3.57

Total Amount: RM 39.27

Enter Amount Paid: RM 50

Change: RM 10.73

Please enter your order (Enter 0 to exit):

0

Thank You, Pls Come Again!!!

Would you like to customize your order? (y/n): n

Customization: -

Press any key to continue . . . |

Microsoft Visual Studio Debu

Daily Meal Sales Report

Total Customers : 5

Total Sales: RM 148.50

Total SST Collected: RM 14.85

Total Amount Collected: RM 163.35

End Of The Day!!!

C:\Users\User\source\repos\Assignment\x64\Debug\Assignment.exe (process 13156) exited with code 0.

To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.

Press any key to close this window . . . |

Scenario 3

```
C:\Users\User\source\repos\A X + v

8 - Nescafe Latte RM 4.90
9 - Matcha Latte RM 5.90
10 - Vanilla Milkshake RM10.90
11 - Matcha Milkshake RM11.90

Please enter your order (Enter 0 to exit):
7
Quantity: 2
-----
Order Details
-----
Order: Grilled Lamb Chop
Quantity: 2
Subtotal: RM 50.00
SST (10.00%): RM 5.00
Total Amount: RM 55.00
Enter Amount Paid: RM 60
Change: RM 5.00
Please enter your order (Enter 0 to exit):
3
Quantity: 6
-----
Order Details
-----
Order: Masala Dosa
Quantity: 6
Subtotal: RM 36.00
SST (10.00%): RM 3.60
Total Amount: RM 39.60
Enter Amount Paid: RM 50
Change: RM 10.40
Please enter your order (Enter 0 to exit):
0

Thank You, Pls Come Again!!!
Would you like to customize your order? (y/n): N

Customization: -
Press any key to continue . . . |
```

```
Microsoft Visual Studio Debu X + v

-----
Daily Meal Sales Report
-----
Total Customers : 2
Total Sales: RM 86.00
Total SST Collected: RM 8.60
Total Amount Collected: RM 94.60

End Of The Day!!!

C:\Users\User\source\repos\Assignment\x64\Debug\Assignment.exe (process 20400) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . . |
```

Constants and Variables

Constants:

No.	Constants	Value	Data Type	Purpose
1	SST	0.10	double	Sales and service tax rate
2	price_1	9.00	double	Price of Nasi Lemak
3	price_2	8.00	double	Price of Chicken Rice
4	price_3	6.00	double	Price of Masala Dosa
5	price_4	5.00	double	Price of Hamburger
6	price_5	12.00	double	Price of Fish & Chips
7	price_6	11.00	double	Price of Grilled Chicken Chop
8	price_7	25.00	double	Price of Grilled Lamb Chop
9	price_8	4.90	double	Price of Nescafe Latte
10	price_9	5.90	double	Price of Matcha Latte
11	price_10	10.90	double	Price of Vanilla Milkshake
12	price_11	11.90	double	Price of Matcha Milkshake
13	mealname_1	Nasi Lemak	string	Names of Nasi Lemak
14	mealname_2	Chicken Rice	string	Names of Chicken Rice
15	mealname_3	Masala Dosa	string	Names of Masala Dosa
16	mealname_4	Hamburger	string	Names of Hamburger
17	mealname_5	Fish & Chips	string	Names of Fish & Chips
18	mealname_6	Grilled Chicken Chop	string	Names of Grilled Chicken Chop
19	mealname_7	Grilled Lamb Chop	string	Names of Grilled Lamb Chop
20	mealname_8	Nescafe Latte	string	Names of Nescafe Latte
21	mealname_9	Matcha Latte	string	Names of Matcha Latte
22	mealname_10	Vanilla Milkshake	string	Names of Vanilla Milkshake
23	mealname_11	Matcha Milkshake	string	Names of Matcha Milkshake

Variables:

Variables	Data Type	Purpose
mealtype	int	Stores the meal type selected by the customer
quantity	int	Stores the quantity of the meal or drink ordered by the customer
total_customers	int	Keeps track of the total number of customers served
total_sales	double	Accumulate the total sales amount
total_SST_collected	double	Accumulate the total SST (Sales and Service Tax) collected
subtotal	double	Store the subtotal of the order
amountpaid	double	Store the amount paid by the customer
totalcharge	double	Store the total charge for the current order
customization	char	Store the choice for customization (y/n)
comments	string	Store the customer's comments or customization
customizationInput	string	Store the input for customization