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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Programme	:	DSF Y1S1	
Tutorial Group	:		
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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 is my own work. I understand that I will be penalized if I have not complied with TAR UC's Plagiarism policy.

Signature: Name:Tan Shieh Ling   Date:26/9/2023

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 0 L c	**Problem Solving/Problem Identification** – Solution Design • 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 • 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 • System Logo • Display menu with	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.			

	prices · Ending Message								

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AACS1564 Problem Solving and Programming (Assignment Rubric) – Assignment

2 0 1 c	**Problem Solving/Application** – User Input and Error Handling · 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 · Process bill details (calculation) · Payment process (pay amount and balance)	10%	No bill calculation and payment processes.	Able to perform bill calculation and payment processes. (with major error)	Able to perform bill calculation and payment processes. (with minor error)	Able to perform bill calculation and payment processes.	Able to perform bill calculation and payment processes and produce accurate 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.	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.			

AACS1564 Problem Solving and Programming (Assignment Rubric) – Assignment

	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.			
	Inquisitive Mind – Initiative in Completing Task	10%	No initiative to complete a task.	Demonstrate 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%								

Table of content

Brief description / Purpose

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, you are assigned by 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.

The menu of restaurant:

Order Code	Food	Price (RM)
A	Nasi Lemak	5.00
B	Chicken Rice	6.50
C	Masala Dosa	4.50
D	Hamburger	7.00
E	Fish and Chip	5.50

Order Code	Drink	Cold (RM)	Hot (RM)
F(cold) f(hot)	Mineral Water	1.50	1.00
G(cold) g(hot)	Milo	3.50	3.00
H(cold) h(hot)	Nescafe	6.50	6.00
I	Soft Drink	4.00	-
J	Juice	7.50	-

Method of solution (pseudocode)

1. Start
2. Display Restaurant Logo
3. Repeat until num is equal to 2:
   4. Display Menu Options:
      - "1 = Making order"
      - "2 = Exit"
      - "3 = Daily Sales Report"
   5. Prompt for num
   6. Get num
   7. If num is equal to 1:
      8. Clear the screen
      9. Display Food and Drink Menu
      10. Prompt for order_code
      11. Get order_code
      12. If order_code is valid:
         13. Process the order based on order_code:
            - Calculate total price with SST
            - Prompt for user_paid
            - Calculate change and display
            - Prompt for a review score (5-9)
            - Update review statistics
         14. Display "Thank you for your review."
      15. Else if order_code is not valid:
         16. Display "Invalid order code, please choose again."
   17. Else if num is equal to 2:
      18. Clear the screen
      19. Display Thank You Logo
   20. Else if num is equal to 3:
      21. Clear the screen
      22. Generate and display Daily Sales Report:
         - Calculate total sales for each food and drink item
         - Calculate total SST for food and drinks
         - Calculate final total sales for food and drinks
         - Display a table with sales details
         - Display review statistics
   23. Display a blank line
24. End

(2)

Additional features

I have three additional features that is :

- ● Menu of system
  The menu includes making orders, Exit and Daily Sales Report.It is because the
  staff can make the order, exit the program and open the daily sales report at any
  time.

```
                    HHHHH               HHHHH         SSSSSSSSSSSSSSSSSSS
                    HHHHH               HHHHH         SSSSSSSSSSSSSSSSSSS
                    HHHHH               HHHHH          SSSSS
                    HHHHH               HHHHH        SSSSS
                    HHHHH               HHHHH        SSSSS
                    HHHHH               HHHHH         SSSSS
                    HHHHHHHHHHHHHHHHHHHHHHHHH             SSSSSSSSSSSSSSSSSSS
                    HHHHHHHHHHHHHHHHHHHHHHHHH             SSSSSSSSSSSSSSSSSSS
                    HHHHH               HHHHH                         SSSSS
                    HHHHH               HHHHH                          SSSSS
                    HHHHH               HHHHH                          SSSSS
                    HHHHH               HHHHH                          SSSSS
                    HHHHH               HHHHHHHSSSSSSSSSSSSSSSSSSSSSSSSSSS
                    HHHHH               HHHHHHHSSSSSSSSSSSSSSSSSSSSSSSSSSS
Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

- ● Review function
  It can collect all the customer reviews and the restaurant can make any change
  when the customer had some bad review.

```
Please give us some review. Mark= 5-9
9
Thank for your review.
```

```
    *= 0
   **= 0
  ***= 0
 ****= 0
*****= 1
```

Program testing & Outputs

Run 1 scenario: More than one customer- Different types of meal ordered in different quantities and different reviews.(Daily Sales Report should automatically record all the order and the review)

	Input				Expected Results / Output			
Cus. No	Meal Type	Qty	Payment (RM)	Review	Meal Charges	SST (10%)	Total Charges	Change to be given
1	A	2	15.00	7	2*5.00=10.00	1.00	11.00	4.00
2	C	4	20.00	8	4*4.50=18.00	1.80	19.80	0.20
3	H	1	10.00	9	1*6.50=6.50	0.65	7.15	2.85
4	f	3	5.00	5	3*1.00=3.00	0.30	3.30	1.70

```
FFFFFFFFF    OOOO        OOOO      DDDDDD          DDDDDDD    RRRRRR    IIIIIII NN       N K      KK
F            O    O    O    O   D      D           D      D R    R     II    N NN     N K   KK
F            O    O  O    O    O D        D         D      D R    R     II    N  NN    N K  KK
FFFFFFFFF O         O O         O D        D         D      D RRRRRR    II    N   NN   N KKK
F            O    O  O         O D        D          D      D R  R      II    N    NN  N K  KK
F            O    O    O    O   D      D             D      D R    R     II    N    NN N K    KK
F            OOOO        OOOO      DDDDDD             DDDDDDD   R      R IIIIIII N       NN K    KK
                                                                                       COLD         HOT
(A) Nasi Lemak---------------------RM5.00       (F) Mineral Water--------------------RM1.50       RM1.00
(B) Chicken Rice-------------------RM6.50       (G) Milo-----------------------------RM3.50       RM3.00
(C) Masala Dosa--------------------RM4.50       (H) Nescafe--------------------------RM6.50       RM6.00
(D) Hamburger----------------------RM7.00       (I) Soft Drink-----------------------RM4.00
(E) Fish And Chip------------------RM5.50       (J) Juice----------------------------RM7.50

Example:                                        Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                    If want COLD Milo press 'G'
                                                If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
A
Nasi Lemak= 5.00
Quantity:
2
The price is    = RM10.00
Add on SST (10%)= RM1.00
Total price     = RM11.00
--------------------------
15
Amount Paid= 15.00
Your change= 4.00

Please give us some review. Mark= 5-9
7
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
FFFFFFFFF    OOOO      OOOO    DDDDDD       DDDDDDD   RRRRRR    IIIIIII NN      N K      KK
F           O    O    O    O   D     D      D     D R     R     II    N NN     N K     KK
F           O      O O      O  D      D      D      D R     R     II    N  NN    N K  KK
FFFFFFFFF O        O O        O D      D      D      D RRRRRR      II    N   NN   N KKK
F           O      O O      O  D      D      D      D R  R         II    N    NN  N K  KK
F           O    O    O    O   D     D      D      D R    R        II    N     NN N K   KK
F            OOOO      OOOO    DDDDDD       DDDDDDD   R       R IIIIIII N       NN K    KK
                                                                        COLD        HOT
(A) Nasi Lemak---------------------RM5.00    (F) Mineral Water---------------------RM1.50      RM1.00
(B) Chicken Rice--------------------RM6.50    (G) Milo--------------------------------RM3.50      RM3.00
(C) Masala Dosa--------------------RM4.50    (H) Nescafe----------------------------RM6.50      RM6.00
(D) Hamburger----------------------RM7.00    (I) Soft Drink------------------------RM4.00
(E) Fish And Chip-------------------RM5.50    (J) Juice-------------------------------RM7.50

Example:                                      Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                  If want COLD Milo press 'G'
                                              If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
C
Masala Dosa= 4.50
Quantity:
4
The price is     = RM18.00
Add on SST (10%)= RM1.80
Total price      = RM19.80
----------------------------
20
Amount Paid= 20.00
Your change= 0.20

Please give us some review. Mark= 5-9
8
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
FFFFFFFFF    OOOO      OOOO    DDDDDD       DDDDDDD   RRRRRR    IIIIIII NN      N K      KK
F           O    O    O    O   D     D      D     D R     R     II    N NN     N K     KK
F           O      O O      O  D      D      D      D R     R     II    N  NN    N K  KK
FFFFFFFFF O        O O        O D      D      D      D RRRRRR      II    N   NN   N KKK
F           O      O O      O  D      D      D      D R  R         II    N    NN  N K  KK
F           O    O    O    O   D     D      D      D R    R        II    N     NN N K   KK
F            OOOO      OOOO    DDDDDD       DDDDDDD   R       R IIIIIII N       NN K    KK
                                                                        COLD        HOT
(A) Nasi Lemak---------------------RM5.00    (F) Mineral Water---------------------RM1.50      RM1.00
(B) Chicken Rice--------------------RM6.50    (G) Milo--------------------------------RM3.50      RM3.00
(C) Masala Dosa--------------------RM4.50    (H) Nescafe----------------------------RM6.50      RM6.00
(D) Hamburger----------------------RM7.00    (I) Soft Drink------------------------RM4.00
(E) Fish And Chip-------------------RM5.50    (J) Juice-------------------------------RM7.50

Example:                                      Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                  If want COLD Milo press 'G'
                                              If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
H
Nescafe (COLD)= 6.50
Quantity:
1
The price is     = RM6.50
Add on SST (10%)= RM0.65
Total price      = RM7.15
----------------------------
10
Amount Paid= 10.00
Your change= 2.85

Please give us some review. Mark= 5-9
9
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

(5)

```
FFFFFFFFF    OOOO       OOOO    DDDDDD       DDDDDDD   RRRRRR   IIIIIII NN      N K      KK
F          O    O     O    O   D      D      D       D R      R   II    N NN    N K    KK
F             O    O     O   O D        D     D        D R      R  II    N  NN   N K  KK
FFFFFFFFF O        O O         O D        D     D        D RRRRRR    II    N   NN  N KKK
F          O    O     O     O   D        D     D        D R R       II    N    NN  N K  KK
F             O    O     O   O D        D     D        D R   R     II    N     NN N K    KK
F             OOOO       OOOO   DDDDDD       DDDDDDD   R      R IIIIIII N       NN K      KK
                                                                               COLD        HOT
(A) Nasi Lemak---------------------RM5.00     (F) Mineral Water--------------------RM1.50      RM1.00
(B) Chicken Rice-------------------RM6.50     (G) Milo----------------------------RM3.50      RM3.00
(C) Masala Dosa--------------------RM4.50     (H) Nescafe-------------------------RM6.50      RM6.00
(D) Hamburger----------------------RM7.00     (I) Soft Drink----------------------RM4.00
(E) Fish And Chip------------------RM5.50     (J) Juice---------------------------RM7.50

Example:                                      Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                  If want COLD Milo press 'G'
                                              If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
f
Mineral Water (HOT)= 1.00
Quantity:
3
The price is    = RM3.00
Add on SST (10%)= RM0.30
Total price     = RM3.30
--------------------------
5
Amount Paid= 5.00
Your change= 1.70

Please give us some review. Mark= 5-9
5
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
-------------------------Daily Sales Report-----------------------------
         Menu              Price(RM)      Quantity        Total Sales(RM)
Food
      Nasi Lemak             5.00            2                10.00
      Chicken Rice           6.50            0                0.00
      Masala Dosa            4.50            4                18.00
      Hamburger              7.00            0                0.00
      Fish and Chip          5.50            0                0.00
-----------------------------------------------------------------------
                                               Total Amount:28.00
                                                  Total SST:2.80
                                               Final Amount:30.80


Drink
      Mineral Water (COLD)   1.50            0                0.00
      Mineral Water (HOT)    1.00            3                3.00
      Milo (COLD)            3.50            0                0.00
      Milo (HOT)             3.00            0                0.00
      Nescafe (COLD)         6.50            1                6.50
      Nescafe (HOT)          6.00            0                0.00
      Soft Drink             4.00            0                0.00
      Juice                  7.50            0                0.00
-----------------------------------------------------------------------
                                               Total Amount:9.50
                                                  Total SST:0.95
                                               Final Amount:10.45




    *= 1
   **= 0
  ***= 1
 ****= 1
*****= 1

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

(6)

Run 2 scenario: More than one customer- Same type of meal ordered in different quantities and different reviews.(Daily Sales Report should automatically record all the order and the review)

Cus. No	Meal Type	Qty	Payment	Review	Meal Charges	SST (10%)	Total Charges	Change to be given
			Input			Expected Results / Output		
1	J	4	40.00	6	4*7.50=30.00	3.00	33.00	7.00
2	J	6	60.00	9	6*7.50=45.00	4.50	49.50	10.50
3	J	2	20.00	7	2*7.50=15.00	1.50	16.50	3.50
4	J	3	30.00	7	3*7.50=22.50	2.25	24.75	5.25

```
FFFFFFFFF    OOOO       OOOO     DDDDDD          DDDDDDD    RRRRRR   IIIIIII NN        N K      KK
F           O    O     O    O   D      D         D      D  R     R    II    N NN      N K    KK
F          O      O   O      O O D      D         D      D  R     R    II    N  NN     N K  KK
FFFFFFFFF O         O O         O D      D         D      D RRRRRR     II    N    NN    N KKK
F          O      O   O      O O D      D         D      D  R   R      II    N     NN  N K  KK
F           O    O     O    O   D      D         D      D  R     R    II    N      NN NN N K    KK
F            OOOO       OOOO     DDDDDD          DDDDDDD    R       R IIIIIII N       NN K     KK
                                                                            COLD         HOT
(A) Nasi Lemak----------------------RM5.00       (F) Mineral Water--------------------RM1.50      RM1.00
(B) Chicken Rice--------------------RM6.50       (G) Milo-----------------------------RM3.50      RM3.00
(C) Masala Dosa---------------------RM4.50       (H) Nescafe--------------------------RM6.50      RM6.00
(D) Hamburger-----------------------RM7.00       (I) Soft Drink-----------------------RM4.00
(E) Fish And Chip-------------------RM5.50       (J) Juice----------------------------RM7.50

Example:                                         Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                     If want COLD Milo press 'G'
                                                 If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
J
Juice= 7.50
Quantity:
4
The price is     = RM30.00
Add on SST (10%)= RM3.00
Total price      = RM33.00
---------------------------
40
Amount Paid= 40.00
Your change= 7.00

Please give us some review. Mark= 5-9
6
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
FFFFFFFFF    OOOO      OOOO    DDDDDD        DDDDDD   RRRRRR    IIIIIII NN      N K     KK
F          O    O    O    O  D     D        D     D R    R    II    N NN     N K    KK
F          O      O  O      O D     D        D     D R    R    II    N  NN    N K  KK
FFFFFFFFF O        O O        O D     D        D     D RRRRRR    II    N   NN   N KKK
F          O    O  O O      O D     D        D     D R R        II    N    NN  N K  KK
F          O      O  O    O  O D     D        D     D R   R     II    N     NN N K    KK
F            OOOO      OOOO    DDDDDD        DDDDDD   R       R IIIIIII N      NN K   KK
                                                                              COLD        HOT
(A) Nasi Lemak----------------------RM5.00      (F) Mineral Water----------------------RM1.50       RM1.00
(B) Chicken Rice--------------------RM6.50      (G) Milo-------------------------------RM3.50       RM3.00
(C) Masala Dosa---------------------RM4.50      (H) Nescafe----------------------------RM6.50       RM6.00
(D) Hamburger----------------------RM7.00      (I) Soft Drink------------------------RM4.00
(E) Fish And Chip-------------------RM5.50      (J) Juice-----------------------------RM7.50

Example:                                        Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                    If want COLD Milo press 'G'
                                                If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
J
Juice= 7.50
Quantity:
6
The price is    = RM45.00
Add on SST (10%)= RM4.50
Total price     = RM49.50
---------------------------
60
Amount Paid= 60.00
Your change= 10.50

Please give us some review. Mark= 5-9
9
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
FFFFFFFFF    OOOO      OOOO    DDDDDD        DDDDDD   RRRRRR    IIIIIII NN      N K     KK
F          O    O    O    O  D     D        D     D R    R    II    N NN     N K    KK
F          O      O  O      O D     D        D     D R    R    II    N  NN    N K  KK
FFFFFFFFF O        O O        O D     D        D     D RRRRRR    II    N   NN   N KKK
F          O    O  O O      O D     D        D     D R R        II    N    NN  N K  KK
F            OOOO      OOOO    DDDDDD        DDDDDD   R       R IIIIIII N      NN K   KK
                                                                              COLD        HOT
(A) Nasi Lemak----------------------RM5.00      (F) Mineral Water----------------------RM1.50       RM1.00
(B) Chicken Rice--------------------RM6.50      (G) Milo-------------------------------RM3.50       RM3.00
(C) Masala Dosa---------------------RM4.50      (H) Nescafe----------------------------RM6.50       RM6.00
(D) Hamburger----------------------RM7.00      (I) Soft Drink------------------------RM4.00
(E) Fish And Chip-------------------RM5.50      (J) Juice-----------------------------RM7.50

Example:                                        Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                    If want COLD Milo press 'G'
                                                If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
J
Juice= 7.50
Quantity:
2
The price is    = RM15.00
Add on SST (10%)= RM1.50
Total price     = RM16.50
---------------------------
20
Amount Paid= 20.00
Your change= 3.50

Please give us some review. Mark= 5-9
7
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

(8)

```
FFFFFFFFF    OOOO       OOOO     DDDDDD         DDDDDDD   RRRRRR   IIIIIII NN      N K      KK
F          O    O     O    O    D     D         D       D R     R    II   N NN    N K     KK
F         O      O   O      O  D       D         D       D R     R    II   N  NN   N K   KK
FFFFFFFFF O        O O        O D       D         D       D RRRRRR    II   N   NN   N KKK
F          O      O   O      O  D       D         D       D R  R      II   N    NN  N K   KK
F           O    O     O    O    D     D         D       D R   R     II   N     NN N K     KK
F            OOOO       OOOO     DDDDDD         DDDDDDD   R     R  R IIIIIII N       NN K      KK
                                                                            COLD         HOT
(A) Nasi Lemak----------------------RM5.00      (F) Mineral Water--------------------RM1.50      RM1.00
(B) Chicken Rice--------------------RM6.50      (G) Milo-----------------------------RM3.50      RM3.00
(C) Masala Dosa---------------------RM4.50      (H) Nescafe--------------------------RM6.50      RM6.00
(D) Hamburger----------------------RM7.00       (I) Soft Drink-----------------------RM4.00
(E) Fish And Chip-------------------RM5.50      (J) Juice----------------------------RM7.50

Example:                                        Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                    If want COLD Milo press 'G'
                                                If want HOT Milo press 'g'
Press the char that you want to order or press any butteren to exit:
J
Juice= 7.50
Quantity:
3
The price is    = RM22.50
Add on SST (10%)= RM2.25
Total price     = RM24.75
--------------------------
30
Amount Paid= 30.00
Your change= 5.25

Please give us some review. Mark= 5-9
7
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
---------------------------Daily Sales Report----------------------------
         Menu              Price(RM)    Quantity      Total Sales(RM)
Food
      Nasi Lemak             5.00          0              0.00
      Chicken Rice           6.50          0              0.00
      Masala Dosa            4.50          0              0.00
      Hamburger              7.00          0              0.00
      Fish and Chip          5.50          0              0.00
      ----------------------------------------------------------------
                                                  Total Amount:0.00
                                                     Total SST:0.00
                                                  Final Amount:0.00


Drink
      Mineral Water (COLD)   1.50          0              0.00
      Mineral Water (HOT)    1.00          0              0.00
      Milo (COLD)            3.50          0              0.00
      Milo (HOT)             3.00          0              0.00
      Nescafe (COLD)         6.50          0              0.00
      Nescafe (HOT)          6.00          0              0.00
      Soft Drink             4.00          0              0.00
      Juice                  7.50         15            112.50
      ----------------------------------------------------------------
                                                  Total Amount:112.50
                                                     Total SST:11.25
                                                  Final Amount:123.75




    *= 0
   **= 1
  ***= 2
 ****= 0
*****= 1

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

(9)

Run 3 scenario: More than one customer- Different types of meal ordered in same quantities and different reviews.(Daily Sales Report should automatically record all the order and the review)

	Input				Expected Results / Output			
Cus. No	Meal Type	Qty	Payment	Review	Meal Charges	SST (10%)	Total Charges	Change to be given
1	H	5	40.00	7	5*6.50=32.50	3.25	35.75	4.25
2	g	5	20.00	8	5*3.00=15.00	1.50	16.50	3.50
3	E	5	35.00	9	5*5.50=27.50	2.75	30.25	4.75
4	B	5	40.00	8	5*6.50=32.50	3.25	35.75	4.25

```
FFFFFFFFF    OOOO      OOOO     DDDDDD          DDDDDDD    RRRRRR   IIIIIII NN       N K      KK
F         O   O    O    O  D      D            D      D  R     R    II    N NN      N K    KK
F         O     O O      O D       D           D      D  R     R    II    N  NN    N K  KK
FFFFFFFFF O       O O       O D       D        D      D  RRRRRR     II    N    NN   N KKK
F         O   O    O    O   O D       D        D      D  R  R       II    N     NN  N K  KK
F         O   O    O    O    O D     D         D      D  R     R    II    N      NN N K    KK
F           OOOO      OOOO     DDDDDD          DDDDDDD    R       R IIIIIII N       NN K     KK
                                                                                COLD        HOT
(A) Nasi Lemak----------------------RM5.00     (F) Mineral Water---------------------RM1.50    RM1.00
(B) Chicken Rice-------------------RM6.50      (G) Milo------------------------------RM3.50    RM3.00
(C) Masala Dosa--------------------RM4.50      (H) Nescafe---------------------------RM6.50    RM6.00
(D) Hamburger----------------------RM7.00      (I) Soft Drink------------------------RM4.00
(E) Fish And Chip------------------RM5.50      (J) Juice-----------------------------RM7.50

Example:                                       Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                   If want COLD Milo press 'G'
                                               If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
H
Nescafe (COLD)= 6.50
Quantity:
5
The price is    = RM32.50
Add on SST (10%)= RM3.25
Total price     = RM35.75
----------------------------
40
Amount Paid= 40.00
Your change= 4.25

Please give us some review. Mark= 5-9
7
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
FFFFFFFFF    OOOO        OOOO    DDDDDD          DDDDDDD   RRRRRR    IIIIIII NN        N K      KK
F           O    O    O    O   D      D          D      D R     R     II    N NN      N K     KK
F          O      O  O      O D        D         D       D R     R    II    N  NN     N K   KK
FFFFFFFFF O        O O        O D       D         D        D RRRRRR    II    N   NN    N KKK
F          O      O  O      O D        D          D      D R  R        II    N    NN   N K   KK
F           O    O    O    O   D      D           D      D R   R       II    N     NN  N K    KK
F            OOOO        OOOO    DDDDDD           DDDDDDD   R      R IIIIIII N       NN K      KK
                                                                                COLD          HOT
(A) Nasi Lemak---------------------RM5.00        (F) Mineral Water---------------------RM1.50      RM1.00
(B) Chicken Rice-------------------RM6.50        (G) Milo------------------------------RM3.50      RM3.00
(C) Masala Dosa--------------------RM4.50        (H) Nescafe---------------------------RM6.50      RM6.00
(D) Hamburger---------------------RM7.00         (I) Soft Drink-----------------------RM4.00
(E) Fish And Chip------------------RM5.50        (J) Juice----------------------------RM7.50

Example:                                         Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                     If want COLD Milo press 'G'
                                                 If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
g
Milo (HOT)= 3.00
Quantity:
5
The price is    = RM15.00
Add on SST (10%)= RM1.50
Total price     = RM16.50
--------------------------
20
Amount Paid= 20.00
Your change= 3.50

Please give us some review. Mark= 5-9
8
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
FFFFFFFFF    OOOO        OOOO    DDDDDD          DDDDDDD   RRRRRR    IIIIIII NN        N K      KK
F           O    O    O    O   D      D          D      D R     R     II    N NN      N K     KK
F          O      O  O      O D        D         D       D R     R    II    N  NN     N K   KK
FFFFFFFFF O        O O        O D       D         D        D RRRRRR    II    N   NN    N KKK
F          O      O  O      O D        D          D      D R  R        II    N    NN   N K   KK
F           O    O    O    O   D      D           D      D R   R       II    N     NN  N K    KK
F            OOOO        OOOO    DDDDDD           DDDDDDD   R      R IIIIIII N       NN K      KK
                                                                                COLD          HOT
(A) Nasi Lemak---------------------RM5.00        (F) Mineral Water---------------------RM1.50      RM1.00
(B) Chicken Rice-------------------RM6.50        (G) Milo------------------------------RM3.50      RM3.00
(C) Masala Dosa--------------------RM4.50        (H) Nescafe---------------------------RM6.50      RM6.00
(D) Hamburger---------------------RM7.00         (I) Soft Drink-----------------------RM4.00
(E) Fish And Chip------------------RM5.50        (J) Juice----------------------------RM7.50

Example:                                         Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                     If want COLD Milo press 'G'
                                                 If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
E
Fish And Chip= 5.50
Quantity:
5
The price is    = RM27.50
Add on SST (10%)= RM2.75
Total price     = RM30.25
--------------------------
35
Amount Paid= 35.00
Your change= 4.75

Please give us some review. Mark= 5-9
9
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
FFFFFFFFF    OOOO        OOOO      DDDDDD          DDDDDDD   RRRRRR   IIIIIII NN      N K      KK
F          O    O      O    O    D      D         D      D R    R     II   N NN     N K     KK
F         O      O    O      O  D        D        D       D R    R    II   N  NN    N K   KK
FFFFFFFFF O        O O        O D         D       D       D RRRRRR    II   N   NN   N KKK
F          O      O    O      O D        D        D       D R  R      II   N    NN  N K  KK
F           O    O      O    O   D      D         D      D  R   R     II   N     NN N K   KK
F            OOOO        OOOO     DDDDDD          DDDDDDD   R      R IIIIIII N      NN K    KK
                                                                                COLD        HOT
(A) Nasi Lemak----------------------RM5.00        (F) Mineral Water--------------------RM1.50      RM1.00
(B) Chicken Rice--------------------RM6.50        (G) Milo-----------------------------RM3.50      RM3.00
(C) Masala Dosa---------------------RM4.50        (H) Nescafe--------------------------RM6.50      RM6.00
(D) Hamburger-----------------------RM7.00        (I) Soft Drink-----------------------RM4.00
(E) Fish And Chip-------------------RM5.50        (J) Juice----------------------------RM7.50

Example:                                          Example:(Cold is char upper case)  (Hot is char lower case)
If want Nasi Lemak press 'A'                      If want COLD Milo press 'G'
                                                  If want HOT Milo press 'g'
Press the char that you want to order or press any buttern to exit:
B
Chicken Rice= 6.50
Quantity:
5
The price is    = RM32.50
Add on SST (10%)= RM3.25
Total price     = RM35.75
--------------------------
40
Amount Paid= 40.00
Your change= 4.25

Please give us some review. Mark= 5-9
8
Thank for your review.

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

```
---------------------------Daily Sales Report----------------------------
          Menu               Price(RM)    Quantity       Total Sales(RM)
Food
      Nasi Lemak               5.00           0               0.00
      Chicken Rice             6.50           5              32.50
      Masala Dosa              4.50           0               0.00
      Hamburger                7.00           0               0.00
      Fish and Chip            5.50           5              27.50
      ------------------------------------------------------------------
                                                Total Amount:60.00
                                                  Total SST:6.00
                                                Final Amount:66.00


Drink
      Mineral Water (COLD)     1.50           0               0.00
      Mineral Water (HOT)      1.00           0               0.00
      Milo (COLD)              3.50           0               0.00
      Milo (HOT)               3.00           5              15.00
      Nescafe (COLD)           6.50           5              32.50
      Nescafe (HOT)            6.00           0               0.00
      Soft Drink               4.00           0               0.00
      Juice                    7.50           0               0.00
      ------------------------------------------------------------------
                                                Total Amount:47.50
                                                  Total SST:4.75
                                                Final Amount:52.25



    *= 0
   **= 0
  ***= 1
 ****= 2
*****= 1

Please press 1 or 2 or 3
1= Making order
2= Exit
3= Daily Sales Report
```

(12)

Constants and Variables

Constants:

Data Types	Constants Value	Value	Purpose
Double	priceA	5.00	Price Nasi Lemak
	priceB	6.50	Price Chicken Rice
	priceC	4.50	Price masala Dosa
	priceD	7.00	Price Hamburger
	priceE	5.50	Price Fish and Chip
	priceF	1.50	Price Mineral Water (Cold)
	pricef	1.00	Price Mineral Water (Hot)
	priceG	3.50	Price Milo (Cold)
	priceg	3.00	Price Milo (Hot)
	priceH	6.50	Price Nescafe (Cold)
	priceh	6.00	Price Nescafe (Hot)
	priceI	4.00	Price Soft Drink
	priceJ	7.50	Price Juice
	SST	0.1	Percentage SST

Variables:

Data Types	Variables Value	Purpose
Int	order _quantity	The order quantity of each customer.
	num	The number for customers to make selections on the main menu system and make reviews.
	very_bad	One of selections on review
	bad	One of selections on review
	normal	One of selections on review
	good	One of selections on review
	very_good	One of selections on review
	order _quantityA	The total order in quantity of Nasi Lemak on the day.
	order _quantityB	The total order in quantity of Chicken Rice on the day.
	order _quantityC	The total order in quantity of Masala Dosa on the day.
	order _quantityD	The total order in quantity of Hamburger on the day.
	order _quantityE	The total order in quantity of Fish and Chip on the day.
	order _quantityF	The total order in quantity of Mineral Water (Cold) on the day.
	order _quantityf	The total order in quantity of Mineral Water (Hot) on the day.
	order _quantityG	The total order in quantity of Milo (Cold) on the day.
	order _quantityg	The total order in quantity of Milo (Hot) on the day.
	order _quantityH	The total order in quantity of Nescafe (Cold) on the day.
	order _quantityh	The total order in quantity of Nescafe (Hot) on the day.
	order _quantityI	The total order in quantity of Soft Drink on the day.
	order _quantityJ	The total order in quantity of Juice on the day.

Data Types	Variables Value	Purpose
Double	price_final	The price for the ordering excludes the SST.
	user_paid	The payment of the customer.
	priceSST	The price for SST on the order.
	total_amount_food	The total amount of food excludes the SST on the day.
	total_amount_drink	The total amount of drinks excludes the SST on the day.
	total_SST_food	The total amount of food SST on the day.
	total_SST_drink	The total amount of drink SST on the day.
	final_amount_food	The final amount of food including the SST on the day.
	final_amount_drink	The final amount of drink including the SST on the day.
Char	order_code	The code to order the food and drink.