



FACULTY OF COMPUTING AND INFORMATION TECHNOLOGY  
BACS 1014 PROBLEM SOLVING AND PROGRAMMING

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## Brief Description / Purpose

The purpose of the ticketing program is to issue tickets for the movie that shows every Friday night at TAR Cinemax. This program will generate the total sales report for the movie.

Moreover, this program can waste less time on unnecessary manual processes, freeing up time for more important work. It also allows for proper management of incidents leading to quicker resolution times.

TAR Cinemax shows a popular movie every Friday night. The cinema is open to the public. There is a Friday deals on every Friday night. Customers can enjoy Friday promotions, that is, purchase at least one ticket, and be able to buy popcorn combinations for RM 10 per group. This promotion only valid when customer purchase the popcorn at the ticket counter.

Customers who arrive at the ticket counter will be shown the list of available seats and they will be asked which Class and ticket quantity for each category they require. Any student who show their student registration card can get a cheaper ticket rate.

They have to select the valid class of seats. Appropriate error message should be displayed if customer selected invalid class of seats.

The customer will be asked how many tickets were needed for each category. Appropriate error message should also be displayed if there are not enough seats available. Customer can choose either select others class (Exit)[E] or continue with the same class[C]. If customer chooses to continue, they need to re-enter the number of ticket for each category. If customer choose to exit[E] or select different class that still have seats available, they will not able to choose again until the cancelled bill is shown on the system.

Customer is unable to select the seat numbers. The seat numbers on the ticket are listed in order.

Due to TAR Cinemax is having Friday promotion, all customers who purchase the cinema ticket will be asked at the ticket counter if they want to buy the popcorn combo that only cost RM10 per combo.

After the bill calculation had performed, customer will be asked to choose the payment method to pay by cash or debit card. After payment has been made, each customer will be issued a ticket showing the Seat No and others appropriate details.

All the customers will be served at the ticket counter until all the seats are sold, no more customers and movie started.

A Ticket Sales Report will then be produced by then for the management. The Ticket Sales Report included the seat occupancy for each class, sales for each category type and sales for the popcorn combo.

# Method of Solution – Pseudocode

## Main Function

1. Call function Start\_Screen
2. Do-while(RespondNxtCus = 'N' || RespondNxtCus = 'n')
  - 2.1. Call function Input\_Class
  - 2.2. Call function Ticket\_Selling
  - 2.3. Switch(Class)
    - 2.3.1. Class = 0
      - 2.3.1.1. While(totalSeatSelected > c0)
        - 2.3.1.1.1. Display "Not enough seat"
        - 2.3.1.1.2. Prompt user to continue or exit the program
        - 2.3.1.1.3. If RespondClass = 'C'
        - 2.3.1.1.4. Call function Ticket\_Selling
        - 2.3.1.1.5. Else RespondClass = 'E'
        - 2.3.1.1.6. Payment cancelled
      - 2.3.2. Class = 1
        - 2.3.2.1. While(totalSeatSelected > c1)
          - 2.3.2.1.1. Display "Not enough seat"
          - 2.3.2.1.2. Prompt user to continue or exit the program
          - 2.3.2.1.3. If RespondClass = 'C'
          - 2.3.2.1.4. Call function Ticket\_Selling
          - 2.3.2.1.5. Else RespondClass = 'E'
          - 2.3.2.1.6. Payment cancelled
        - 2.3.3. Class = 2
          - 2.3.3.1. While(totalSeatSelected > c2)
            - 2.3.3.1.1. Display "Not enough seat"
            - 2.3.3.1.2. Prompt user to continue or exit the program
            - 2.3.3.1.3. If RespondClass = 'C'
            - 2.3.3.1.4. Call function Ticket\_Sellin
            - 2.3.3.1.5. Else RespondClass = 'E'
            - 2.3.3.1.6. numOfAdult == 0 && numOfChild == 0 && numOfStudent == 0)
      - 2.4. If (numOfAdult == 0 && numOfChild == 0 && numOfStudent == 0)
        - 2.4.1. RespondAddOn = 'C'
        - 2.4.2. Call function Popcorn
      - 2.5. Else
        - 2.5.1. RespondAddOn = 'Y'
        - 2.5.2. Call function Popcorn
      - 2.6. TotalQuantityCombo += QuantityCombo
      - 2.7. Display "Bill Calculation"

2.8. IF (Class = 0)

- 2.8.1. s0 = 0
- 2.8.2. Call function Total = CalculateForC0
- 2.8.3. Calll function Calculate\_bill
- 2.8.4. Call function Display\_TicketC0
- 2.8.5. s0 = sum0
- 2.8.6. totalTicket = numOfAdult + numOfChild + numOfStudent
- 2.8.7. c0 = c0 - totalTicket
- 2.8.8. AmountA0 = Adult0
- 2.8.9. AmountC0 = Child0
- 2.8.10. AmountS0 = Student0

2.9. Else if (Class = 1)

- 2.9.1. s1= 0
- 2.9.2. Call function Total = CalculateForC1
- 2.9.3. Calll function Calculate\_bill
- 2.9.4. Call function Display\_TicketC1
- 2.9.5. s1 = sum1
- 2.9.6. totalTicket = numOfAdult + numOfChild + numOfStudent
- 2.9.7. c1 = c1 - totalTicket
- 2.9.8. AmountA1 = Adult1
- 2.9.9. AmountC1 = Child1
- 2.9.10. AmountS1 = Student1

2.10. Else if (Class = 2)

- 2.10.1. s2= 0
- 2.10.2. Call function Total = CalculateForC2
- 2.10.3. Calll function Calculate\_bill
- 2.10.4. Call function Display\_TicketC2
- 2.10.5. s2 = sum2
- 2.10.6. totalTicket = numOfAdult + numOfChild + numOfStudent
- 2.10.7. c2 = c2 - totalTicket
- 2.10.8. AmountA2 = Adult2
- 2.10.9. AmountC2 = Child2
- 2.10.10. AmountS2 = Student2

2.11. SumOfAdult += numOfAdult

2.12. SumOfChild += numOfChild

2.13. SumOfStudent += numOfStudent

2.14. If (c0 == 0 && c1 == 0 && c2 == 0)

- 2.14.1. Break

2.15. Do-While(RespondNxtCus != 'Y' && RespondNxtCus != 'y' && RespondNxtCus != 'N' && RespondNxtCus != 'n')

- 2.15.1. Get RespondNxtCus

2.16. If (RespondNxtCus == 'N' || RespondNxtCus == 'n')

- 2.16.1. Break
- 2.17. Call function Seat\_Available
- 3. Call function Display\_Report
- 4. Call function ReportForClass
- 5. Call function ReportForQuantityComboSales

## Start Screen Function

1. Pass in: c0, c1, c2, movie, date, time
2. Display TAR Cinemax Tixket System logo
3. Prompt user to enter movie
4. Get movie
5. Prompt user to enter date
6. Get date
7. Poompt user to enter time
8. Get time
9. Display "Counter is now open for selling of tickets"
10. Display "Seats Available"
11. Display "[VIP] CLASS 0 ->" c0
12. Display "[Front] CLASS 1 ->" c1
13. Display "[Back] CLASS 2 ->" c2

## Input Class Function

1. Pass in: Class, c0, c1, c2
2. Prompt user to enter the class of seats
3. While(Class != 0 && Class != 1 && Class != 2)
  - 3.1. Prompt user enter again valid class of seats

## Ticket Selling Function

1. Pass in: Class, numOfAdult, numOfChild, numOfStudent, c0, c1, c2, totalSeatSelected
2. Do – While (numOfAdult < 0 || numOfChild < 0 || numOfStudent < 0)
  - 2.1. Prompt user to enter number of adult ticket required
  - 2.2. Prompt user to enter number of Child ticket required
  - 2.3. Prompt user to enter number of Student ticket required
3. totalSeatSelected = numOfAdult + numOfChild + numOfStudent

## CalculateForC0 Function

1. Pass in: numOfAdult, numOfChild, numOfStudent, Adult0, Child0, Student0
2. Assign TotalAdult0 = numOfAdult \* AC0
3. Assign TotalChild0 = numOfChild \* CC0
4. Assign TotalStudent0 = numOfStudent \* SC0
5. Display "Number of Adults = " numOfAdult " @ RM " AC0 " = RM " TotalAdult0
6. Display "Number of Child = " numOfChild " @ RM " CC0 " = RM " TotalChild0
7. Display "Number of Student = " numOfStudent " @ RM " SC0 " = RM " TotalStudent0
8. total = TotalAdult0 + TotalChild0 + TotalStudent0
9. Adult0 += TotalAdult0;
10. Child0 += TotalChild0;
11. Student0 += TotalStudent0
12. Return total

## CalculateForC1 Function

1. Pass in: numOfAdult, numOfChild, numOfStudent, Adult1, Child1, Student1
2. Assign TotalAdult0 = numOfAdult \* AC1
3. Assign TotalChild0 = numOfChild \* CC1
4. Assign TotalStudent0 = numOfStudent \* SC1
5. Display "Number of Adults = " numOfAdult " @ RM " AC1 " = RM " TotalAdult1
6. Display "Number of Child = " numOfChild " @ RM " CC1 " = RM " TotalChild1
7. Display "Number of Student = " numOfStudent " @ RM " SC1 " = RM " TotalStudent1
8. total = TotalAdult1 + TotalChild1 + TotalStudent1
9. Adult1 += TotalAdult1
10. Child1 += TotalChild1
11. Student1 += TotalStudent1
12. Return total

## CalculateForC2 Function

1. Pass in: numOfAdult, numOfChild, numOfStudent, Adult2, Child2, Student2
2. Assign TotalAdult2 = numOfAdult \* AC2
3. Assign TotalChild2 = numOfChild \* CC2
4. Assign TotalStudent2 = numOfStudent \* SC2
5. Display "Number of Adults = " numOfAdult " @ RM " AC2 " = RM " TotalAdult2
6. Display "Number of Child = " numOfChild " @ RM " CC2 " = RM " TotalChild2
7. Display "Number of Student = " numOfStudent " @ RM " SC2 " = RM " TotalStudent2
8. total = TotalAdult2 + TotalChild2 + TotalStudent2
9. Adult2 += TotalAdult2

10. Child2 += TotalChild2
11. Student2 += TotalStudent2
12. Return total

## Popcorn Function

1. Pass in: RespondAddOn, QuantityCombo
2. If (RespondAddOn == 'C')
  - 2.1. QuantityCombo = 0
3. Else
  - 3.1. Display "Friday Deals"
  - 3.2. Display "POPCORN COMBO For only RM 10 !!!"
  - 3.3. Display "Do you want to add on popcorn combo? Yes[Y]/ No[N] "
  - 3.4. Get RespondAddOn
  - 3.5. while (RespondAddOn != 'Y' && RespondAddOn != 'N')
    - 3.5.1. Display "Enter Y for Yes or N for No only."
    - 3.5.2. Display "Do you want to add on popcorn combo? Yes[Y]/ No[N] "
    - 3.5.3. Get RespondAddOn
  - 3.6. If (RespondAddOn == 'Y')
    - 3.6.1. Do – While (QuantityCombo <= 0)
      - 3.6.1.1. Prompt user enter the quantity of popcorn combo
      - 3.6.1.2. If (QuantityCombo > 0)
        - 3.6.1.2.1. Break
    - 3.7. Else
      - 3.7.1. QunatityCombo = 0

## Calculate Bill Function

1. Pass in: Class, numOfAdult, numOfChild, numOfStudent, total, RespondAddOn, QuantityCombo
2. If (RespondAddOn == 'Y')
  - 2.1. TotalAmountOfPopcorn = popcorn \* QuantityCombo
  - 2.2. TotalAmount = total + TotalAmountOfPopcorn
  - 2.3. Display "Popcorn Combo = "QuantityCombo " @ RM " popcorn " = RM " TotalAmountOfPopcorn
3. Else if (RespondAddOn = 'N')
  - 3.1.1. TotalAmount = total
4. Else if(RespondAddOn = 'C')
  - 4.1.1. TotalAmount = total
5. Display "TOTAL TO PAY = RM " TotalAmount
6. If (RespondAddOn != 'C')
  - 6.1. Display "Payment Method-Cash[C]/ Debit Card[D]: ";
  - 6.2. Get PaymentMethod;

```

6.3. PaymentMethod = toupper(PaymentMethod);
6.4. While (PaymentMethod != 'C' && PaymentMethod != 'D')
    6.4.1. Display "Invalid Payment Method. Please enter again."
    6.4.2. Display "Payment Method-Cash[C]/ Debit Card[D]: "
    6.4.3. Get PaymentMethod
6.5. Display "PAID : RM "
6.6. Get payment
6.7. While (payment < TotalAmount)
    6.7.1. Display "Invalid payment amount. Please enter again."
    6.7.2. Display "PAID : RM "
    6.7.3. Get payment
6.8. If (PaymentMethod == 'C')
    6.8.1. Display "CASH PAYMENT: RM " payment
6.9. Else if (PaymentMethod == 'D')
    6.9.1. Display "Debit Card: RM " payment
6.10.     change = payment – TotalAmount
6.11.     Display "CHANGE DUE: RM " change

```

## Display TicketCO Function

1. Pass in: Class, movie, date, time, numOfAdult, numOfChild, numOfStudent, s0, sum0, c0
2. Display "Here are your ticket."
3. If (numOfAdult > 0 && numOfAdult <= 15)
  - 3.1. For x = 1 to numOfAdult
    - 3.1.1. Display Class of seats, movie, day, date, time on the ticket
    - 3.1.2. sum0 += s0
      - 3.1.2.1. if (sum0 >= 10)
        - 3.1.2.1.1. Display "Seat No: 0" sum0
      - 3.1.2.2. Else if (sum0 < 10)
        - 3.1.2.2.1. Display "Seat No: 00" << sum0
    - 3.1.3. Display price on the ticket
  4. If (numOfChild > 0 && numOfChildt <= 15)
    - 4.1. For y = 1 to numOfChildt
      - 4.1.1. Display Class of seats, movie, day, date, time on the ticket
      - 4.1.2. sum0 += s0
        - 4.1.2.1. if (sum0 >= 10)
          - 4.1.2.1.1. Display "Seat No: 0" sum0
        - 4.1.2.2. Else if (sum0 < 10)
          - 4.1.2.2.1. Display "Seat No: 00" << sum0
      - 4.1.3. Display price on the ticket
    5. If (numOfStudentt > 0 && numOfStudentt <= 15)

- 5.1. For z = 1 to numOfStudent
  - 5.1.1. Display Class of seats, movie, day, date, time on the ticket
  - 5.1.2. sum0 += s0
    - 5.1.2.1. if (sum0 >= 10)
      - 5.1.2.1.1. Display "Seat No: 0" sum0
    - 5.1.2.2. Else if (sum0 < 10)
      - 5.1.2.2.1. Display "Seat No: 00" << sum0
  - 5.1.3. Display price on the ticket

## Display TicketC1 Function

1. Pass in: Class, movie, date, time, numOfAdult, numOfChild, numOfStudent, s1, sum1, c1
2. Display "Here are your ticket."
3. If (numOfAdult > 0 && numOfAdult <= 15)
  - 3.1. For x = 1 to numOfAdult
    - 3.1.1. Display Class of seats, movie, day, date, time on the ticket
    - 3.1.2. Sum1 += s1
      - 3.1.2.1. if (sum1 >= 10)
        - 3.1.2.1.1. Display "Seat No: 1" sum1
      - 3.1.2.2. Else if (sum1 < 10)
        - 3.1.2.2.1. Display "Seat No: 10" << sum1
    - 3.1.3. Display price on the ticket
  4. If (numOfChild > 0 && numOfChildt <= 15)
    - 4.1. For y = 1 to numOChildt
      - 4.1.1. Display Class of seats, movie, day, date, time on the ticket
      - 4.1.2. sum1 += s1
        - 4.1.2.1. if (sum1 >= 10)
          - 4.1.2.1.1. Display "Seat No: 1" sum0
        - 4.1.2.2. Else if (sum1 < 10)
          - 4.1.2.2.1. Display "Seat No: 10" << sum0
      - 4.1.3. Display price on the ticket
    5. If (numOfStudentt > 0 && numOfStudent <= 15)
      - 5.1. For z = 1 to numOfStudent
        - 5.1.1. Display Class of seats, movie, day, date, time on the ticket
        - 5.1.2. sum1 += s1
          - 5.1.2.1. if (sum1 >= 10)
            - 5.1.2.1.1. Display "Seat No: 1" sum0
          - 5.1.2.2. Else if (sum1 < 10)
            - 5.1.2.2.1. Display "Seat No: 10" << sum0
        - 5.1.3. Display price on the ticket

## Display TicketC2 Function

1. Pass in: Class, movie, date, time, numOfAdult, numOfChild, numOfStudent, s2, sum2, c2
2. Display "Here are your ticket."
3. If (numOfAdult > 0 && numOfAdult <= 15)
  - 3.1. For x = 1 to numOfAdult
    - 3.1.1. Display Class of seats, movie, day, date, time on the ticket
    - 3.1.2. sum2 += s1
      - 3.1.2.1. if (sum2 >= 10)
        - 3.1.2.1.1. Display "Seat No: 2" sum1
        - 3.1.2.1.2. Else if (sum2 < 10)
          - 3.1.2.2.1. Display "Seat No: 20" << sum1
      - 3.1.3. Display price on the ticket
  4. If (numOfChild > 0 && numOfChildt <= 15)
    - 4.1. For y = 1 to numOfcildt
      - 4.1.1. Display Class of seats, movie, day, date, time on the ticket
      - 4.1.2. sum2 += s2
        - 4.1.2.1. if (sum2 >= 10)
          - 4.1.2.1.1. Display "Seat No: 2" sum0
          - 4.1.2.1.2. Else if (sum2 < 10)
            - 4.1.2.2.1. Display "Seat No: 20" << sum0
        - 4.1.3. Display price on the ticket
    5. If (numOfStudentt > 0 && numOfstudent <= 15)
      - 5.1. For z = 1 to numOfstudent
        - 5.1.1. Display Class of seats, movie, day, date, time on the ticket
        - 5.1.2. sum2 += s2
          - 5.1.2.1. if (sum2 >= 10)
            - 5.1.2.1.1. Display "Seat No: 2" sum0
            - 5.1.2.1.2. Else if (sum2 < 10)
              - 5.1.2.2.1. Display "Seat No: 20" << sum0
          - 5.1.3. Display price on the ticket

## Seat Available Function

1. Pass in: c0, c1, c2
2. totalSeatAvailable = c0 + c1 + c2;
3. NxtSeatNoC0 = 15 + 1 - c0;
4. NxtSeatNoC1 = 15 + 1 - c1;
5. NxtSeatNoC2 = 30 + 1 - c2
6. Display number of seats available for class 0
7. If (NxtSeatNoC0 < 9)
  - 7.1. Display "(Seat No: 00" NxtSeatNoC0" - 015 )"

```

8. Else if (NxtSeatNoC0 >= 9 && NxtSeatNoC0 < 15)
    8.1. Display "(Seat No: 0" NxtSeatNoC0 " - 015 )"
9. Else if (NxtSeatNoC0 == 15)
    9.1. Display "(Seat No: 015)"
10. Else
    10.1. "No more Seat Available"

11. Display number of seats available for class 1
12. If (NxtSeatNoC1 < 9)
    12.1. Display "(Seat No: 10" NxtSeatNoC1 " - 115 )"
13. Else if (NxtSeatNoC2 >= 9 && NxtSeatNoC2 < 15)
    13.1. Display "(Seat No: 1" NxtSeatNoC1 " - 115 )"
14. Else if (NxtSeatNoC2 == 15)
    14.1. Display "(Seat No: 115)"
15. Else
    15.1. "No more Seat Available"

16. Display number of seats available for class 2
17. If (NxtSeatNoC2 < 9)
    17.1. Display "(Seat No: 20" NxtSeatNoC2 " - 215 )"
18. Else if (NxtSeatNoC2 >= 9 && NxtSeatNoC2 < 15)
    18.1. Display "(Seat No: 2" NxtSeatNoC2 " - 215 )"
19. Else if (NxtSeatNoC2 == 15)
    19.1. Display "(Seat No: 215)"
20. Else
21. "No more Seat Available"

22. If (c0 == 0)
    22.1. Display "***No seat available for class 0"
23. If (C1 = 0)
    23.1. Display "***No seat available for class 1"
24. If (c2 == 0)
    24.1. Display "***No seat available for class 2"
25. If (c0 > 0 || c1 > 0 || c2 > 0)
    25.1. Display "Still have " totalSeatAvailable " seat(s)"

```

## Display Report Function

1. Pass in: movie, date, time
2. Display "TICKET SALES REPORT"
3. Display "Movie Title:" movie
4. Display "Date / Time : " day " " date " " time

## ReportForClass Function

1. Pass in: c0, c1, c2
2. QSold0 = 15 - c0
3. QSold1 = 15 - c1
4. QSold2 = 30 - c2
5. PSold0 = QSold0 / 15.0
6. PSold1 = QSold1 / 15.0
7. PSold2 = QSold2 / 30.0
8. TotalSold = (PSold0 \* 100 + PSold1 \* 100 + PSold2 \* 100) / 300
9. Display "SEAT OCCUPANCY FOR EACH CLASS: "
10. Display the total seats, quantity sold and percentage sold for each class of seats

## ReportForCategory

1. Pass in: SumOfAdult, SumOfChild, SumOfStudent, AmountA0, AmountA1, AmountA2, AmountC0, AmountC1, AmountC2, AmountS0, AmountS1, AmountS2
2. TotalAdult = AmountA0 + AmountA1 + AmountA2
3. TotalChild = AmountC0 + AmountC1 + AmountC2
4. TotalStudent = AmountS0 + AmountS1 + AmountS2
5. Display "SALES FOR EACH CATEGORY TYPE: "
6. Display the number of ticket sold and total sales for each category

## ReportForQuantityComboSales Function

1. Pass in: TotalQuantityCombo
2. Display "SALES FOR POPCORN COMBO: "
3. Display the total quantity of popcorn combo sold and total sales for the popcorn combo

# Constants & variables

## Constants

<u>Name</u>	<u>Value</u>	<u>Date Type</u>	<u>Purpose</u>
day	Friday	String	To store movie shows every Friday night
popcorn	10.00	Double	To store the price per popcorn combo
AC0	20.00	Double	To store price of Adult ticket at Class 0
AC1	16.00	Double	To store the price of Adult ticket at Class 1
AC2	18.00	Double	To store the price of Adult ticket at Class 2
CC0	10.00	Double	To store the price of Child ticket at Cass 0
CC1	6.00	Double	To store the price of Child ticket at Cass 1
CC2	8.00	Double	To store the price of Child ticket at Cass 2
SC0	12.00	Double	To store the price of Student ticket at Cass 0
SC1	8.00	Double	To store the price of Student ticket at Cass 1
SC2	10.00	Double	To store the price of Student ticket at Cass 2

## Variables

<u>Name</u>	<u>Data Type</u>	<u>Purpose</u>
c0	int	To store the number of seats available in Class 0
c1	int	To store the number of seats available in Class 1
c2	int	To store the Number of seats available in Class 2
s0	int	To store the Seat No for Class 0
s1	int	To store the Seat No for Class 1
s2	int	To store the Seat No for Class 2
sum0	int	To store the Sum of seatNo for Class 0
sum1	int	To store the Sum of seatNo for Class 1
sum2	int	To store the Sum of seatNo for Class 2
totalTicket	int	To store the Total Number Of Ticket purchased For Selected Class
totalSeatSelected	int	To store the Total Number Of Seats Selected For Selected Class
SumOfAdult	int	To store the Sum Of Ticket Sold For Adult Category
SumOfChild	int	To store the Sum Of Ticket Sold For Child Category
SumOfStudent	int	To store the Sum Of Ticket Sold For Student Category

numOfAdult	int	To store the Number of ticket for Adult category required
numOfChild	int	To store the Number of ticket for Child category required
numOfStudent	int	To store the Number of ticket for Student category required
QuantityCombo	int	To store the Quantity of popcorn combo
RespondNxtCus	char	To store the respond from user
RespondAddOn	char	To store the respond by asking the customer if they want to add on popcorn combo
RespondClass	char	To get the respond from customer by entering [E] or [C].
movie	string	To store the movie that user input
date	string	To store the date that user input
time	string	To store the time that user input
total	double	To store the Total price for all the selected ticket
AmountA0	double	To store the Total sales at adult category for class 0
Adult0	double	To store the Amount of sales at adult category for class 0
AmountA1	double	To store the Total sales at adult category for class 1

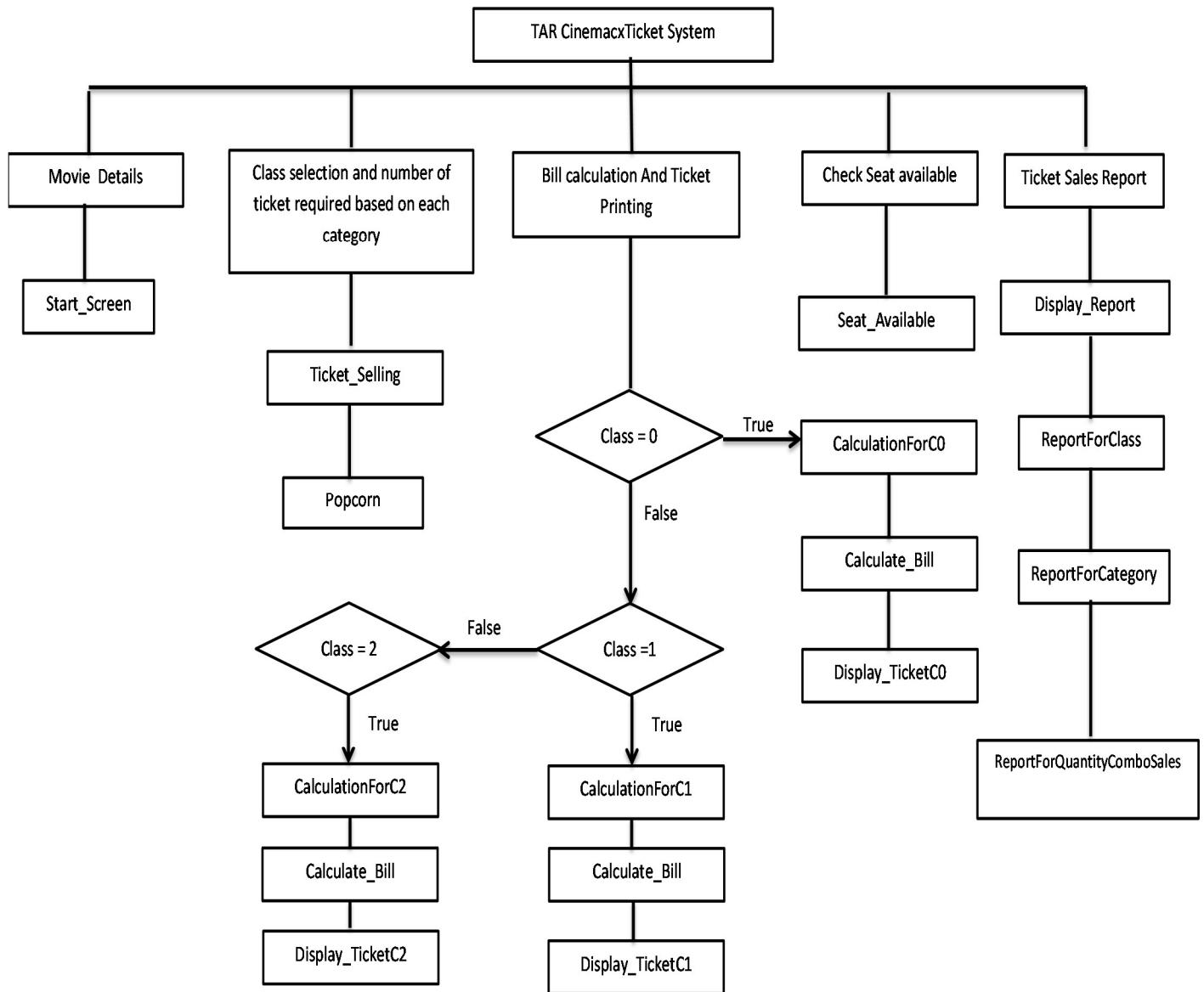
Adult1	double	To store the Amount of sales at adult category for class 1
AmountA2	double	To store the Total sales at adult category for class 2
Adult2	double	To store the Amount of sales at adult category for class 2
AmountC0	double	To store the Total sales at Child category for class 0
Child1	double	To store the Amount of sales at Child category for class 0
AmountC1	double	To store the Total sales at Child category for class 1
Child1	double	To store the Amount of sales at Child category for class 1
AmountC2	double	To store the Total sales at Child category for class 2
Child2	double	To store the Amount of sales at Child category for class 2
AmountS0	double	To store the Total sales at student category for class 0
Student0	double	To store the Amount of sales at student category for class 0
AmountS1	double	To store the Total sales at student category for class 1
Student1	double	To store the Amount of sales at student category for class 1
AmountS2	double	To store the Total sales at student category for class 2

Student2	double	To store the Amount of sales at student category for class 2
TotalQuantityCombo	int	To store the Calculate the total sales of popcorn combo
<b><u>CalculateForC0</u></b>		
total	double	To store the Total price of all the ticket for class 0
TotalAdult0	double	To store the total price of adult ticket for class 0
TotalChild0	double	To store the total price of child ticket for class 0
TotalStudent0	double	total price of student ticket for class 0
<b><u>CalculateForC1</u></b>		
total	double	To store the Total price of all the ticket for class 1
TotalAdult1	double	To store the total price of adult ticket for class 1
TotalChild1	double	To store the total price of child ticket for class 1
TotalStudent1	double	To store the total price of student ticket for class 1
<b><u>CalculateForC2</u></b>		
total	double	To store the Total price of all the ticket for class 2
TotalAdult2	double	To store the total price of adult ticket for class 2

TotalChild2	double	To store the total price of child ticket for class 2
TotalStudent2	double	To store the total price of student ticket for class 2
<b><u>CalculateBill</u></b>		
PaymentMethod	double	To store the type of payment made by customer (Cash or Debit card)
payment	double	To store the Payment done by Customer
change	double	To store the Change due
TotalAmountOfPopcorn	double	To store the total price of popcorn combo that customer need to pay
TotalAmount	double	To store the Total Amount the customer need to pay
<b><u>DisplayTicketC0</u></b>		
<b><u>DisplayTicketC1</u></b>		
<b><u>DisplayTicketC2</u></b>		
x	int	Use for For loop. To display n numbers of ticket
y	int	Use for For loop. To display n numbers of ticket
z	int	Use for For loop. To display n numbers of ticket
<b><u>SeatAvailable</u></b>		
totalSeatAvailable	int	To store the sum of the seats available for each class
NxtSeatNoC0	int	To store the next seat number for class 0

NxtSeatNoC1	int	To store the next seat number for class 1
NxtSeatNoC2	int	To store the next seat number for class 2
<b><u>ReportForClass</u></b>		
QSold0	int	To store the quantity of tickets sold for Class 0
QSold1	int	To store the quantity of tickets sold for Class 1
QSold2	int	To store the quantity of tickets sold for Class 2
PSold0	double	To store the percentage of ticket sold for Class 0
PSold1	double	To store the percentage of ticket sold for Class 1
PSold2	double	To store the percentage of ticket sold for Class 2
TotalSold	double	To store the Total percentage of ticket sold
<b><u>ReportForCategory</u></b>		
TotalAdult	double	To store the Sum of all Total sales at adult category for each class
TotalChild	double	To store the Sum of all Total sales at child category for each class
TotalStudent	double	To store the Sum of all Total sales at student category for each class

# Structure Chart



# Program Testing & Outputs

**Scenario 1:** At least one class chosen twice, some seats still available at the end.

Some customers choose to add some promotion popcorn combo and some choose not to add popcorn combinations.

Some customers choose to pay by cash, and some choose to pay by debit card.

Loop #	Input							Expected Results / Outputs						
	Seat Class	Adult	Child	Student	Add On Yes[Y] / No[N]	Quantity Combo	Payment Method (Cash[C]/ Debit Card [D])	Total Seats	Seat No	Ticket Charges (RM)				
										Adult	Child	Student	Total Amount Of Combo	Total
1	1	2	3	4	Y	2	C	9	101 - 109	2 * 16 = 32	3 * 6 = 18	4 * 8 = 32	2 * 10 = 20	102
2	2	1	1	13	Y	6	D	15	201 - 215	1 * 18 = 18	1 * 8 = 8	13 * 10 = 130	6 * 10 = 60	216
3	1	2	1	0	N	-	C	3	110 - 112	2 * 16 = 32	1 * 8 = 6	0 * 8 = 0	-	38
4	0	2	1	0	Y	1	C	3	001 - 003	2 * 20 = 40	1 * 10 = 10	0 * 12 = 0	1 * 10 = 10	60
5	0	2	0	0	Y	1	C	2	004 - 005	2 * 20 = 40	0 * 10 = 0	0 * 12 = 0	1 * 10 = 10	50
	<b>Total</b>	9	6	17		10		32		162	42	162	100	466

Seat Class	Seat Available (Seat No)
Class 0	006 – 015
Class 1	113 – 115
Class 2	216 – 230

## Output For Scenario 1

Loop 1:

- Input

```
| TAR Cinemax Ticket System |  
-----  
This Friday's movie: Frozen  
Date(dd-mon-yyyy): 22-11-2019  
Time: 8pm  
Counter is now open for selling of tickets  
*****  
Seats Available:  
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )  
[Front] CLASS 1 -> 15 (Seat No: 101 - 115 )  
[Back] CLASS 2 -> 30 (Seat No: 201 - 215 )  
*****  
Class Required (0,1,2)? 1  
Number of Adult Seats required : 2  
Number of child seats required  
(Must be below 12 years old) : 3  
Number of student seats required  
(Must show registration card) : 4  
*****  
Friday Deal !!!!!!!  
POPCORN COMBO For only RM 10 !!!  
Do you want to add on popcorn combo? Yes[Y]/ No[N] y  
How many popcorn combo want to add on? 2  
=====
```

- Bill Calculation

```
-----  
Bill Calculation - Class 1  
-----  
Number of Adults = 2 @ RM 16.00 = RM 32.00  
Number of Child = 3 @ RM 6.00 = RM 18.00  
Number of Student = 4 @ RM 8.00 = RM 32.00  
Popcorn Combo = 2 @ RM 10.00 = RM 20.00  
TOTAL TO PAY = RM 102.00  
Payment Method-Cash[C]/ Debit Card[D]: c  
PAID : RM 105  
CASH PAYMENT : RM 105.00  
CHANGE DUE : RM 3.00  
-----  
Here are your ticket:
```

- Ticket

Here are your ticket:

TAR Cinemax Ticket ADULT - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 101 Price: RM 16.00

TAR Cinemax Ticket ADULT - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 102 Price: RM 16.00

TAR Cinemax Ticket CHILD - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 103 Price: RM 6.00

TAR Cinemax Ticket CHILD - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 104 Price: RM 6.00

TAR Cinemax Ticket CHILD - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 105 Price: RM 6.00

TAR Cinemax Ticket STUDENT - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 106 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 107 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 108 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1

Movie : Frozen

Date/Time : Friday 22-11-2019 8pm

Seat No: 109 Price: RM 8.00

Next customer (Y = Yes/ N = No)? \_

## Loop 2:

- Input

```
Next customer (Y = Yes/ N = No)? y
*****
Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 6 (Seat No: 110 - 115 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 230 )
*****
Still have 51 seat(s)

Class Required (0,1,2)? 2

Number of Adult Seats required : 1
Number of child seats required
(Must be below 12 years old) : 1
Number of student seats required
(Must show registration card) : 13

=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] y

How many popcorn combo want to add on? 6
=====
```

- Bill Calculation

```
-----  
Bill Calculation - Class 2  
-----  
Number of Adults = 1 @ RM 18.00 = RM 18.00  
Number of Child = 1 @ RM 8.00 = RM 8.00  
Number of Student = 13 @ RM 10.00 = RM 130.00  
Popcorn Combo = 6 @ RM 10.00 = RM 60.00  
TOTAL TO PAY = RM 216.00  
Payment Method-Cash[C]/ Debit Card[D]: d  
PAID : RM 216  
DEBIT CARD : RM 216.00  
CHANGE DUE : RM 0.00  
-----
```

- Ticket

Here are your ticket:

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 201 Price: RM 18.00

TAR Cinemax Ticket CHILD - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 202 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 203 Price: RM 10.00

TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 204 Price: RM 10.00

TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 205 Price: RM 10.00

TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 206 Price: RM 10.00

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 207 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 208 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 209 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 210 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 211 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 212 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 213 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 214 Price: RM 10.00  
=====

=====  
TAR Cinemax Ticket STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 215 Price: RM 10.00  
=====

## Loop 3

- Input
- Bill Calculation

```
Next customer (Y = Yes/ N = No)? y
=====
Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 6 (Seat No: 110 - 115 )
[Back] CLASS 2 -> 15 (Seat No: 216 - 230 )
=====
Still have 36 seat(s)

Class Required (0,1,2)? 1

Number of Adult Seats required : 2
Number of child seats required : 1
(Must be below 12 years old) : 1
Number of student seats required
(Must show registration card) : 0

=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] n
=====

-----  
Bill Calculation - Class 1  
-----  
Number of Adults = 2 @ RM 16.00 = RM 32.00  
Number of Child = 1 @ RM 6.00 = RM 6.00  
Number of Student = 0 @ RM 8.00 = RM 0.00  
TOTAL TO PAY = RM 38.00  
Payment Method-Cash[C]/ Debit Card[D]: c  
PAID : RM 3  
Invalid payment amount. Please enter again.  
PAID : RM 40  
CASH PAYMENT : RM 40.00  
CHANGE DUE : RM 2.00  
-----
```

- Ticket

```
Here are your ticket:
=====
TAR Cinemax Ticket ADULT - 1
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 110 Price: RM 16.00
=====

=====
TAR Cinemax Ticket ADULT - 1
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 111 Price: RM 16.00
=====

=====
TAR Cinemax Ticket CHILD - 1
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 112 Price: RM 6.00
=====
```

## Loop 4:

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 3 (Seat No: 113 - 115 )
[Back] CLASS 2 -> 15 (Seat No: 216 - 230 )
=====
Still have 33 seat(s)

Class Required (0,1,2)? 0

Number of Adult Seats required : 2
Number of child seats required
(Must be below 12 years old) : 1
Number of student seats required
(Must show registration card) : 0

=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] y

How many popcorn combo want to add on? 1
=====
```

- Bill Calculation

```
-----
Bill Calculation - Class 0

Number of Adults = 2 @ RM 20.00 = RM 40.00
Number of Child = 1 @ RM 10.00 = RM 10.00
Number of Student = 0 @ RM 12.00 = RM 0.00
Popcorn Combo = 1 @ RM 10.00 = RM 10.00
TOTAL TO PAY = RM 60.00
Payment Method-Cash[C]/ Debit Card[D]: c
PAID : RM 60
CASH PAYMENT : RM 60.00
CHANGE DUE : RM 0.00
-----
```

- Ticket

```
Here are your ticket:
=====
TAR Cinemax Ticket ADULT - 0
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 001 Price: RM 20.00
=====

=====
TAR Cinemax Ticket ADULT - 0
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 002 Price: RM 20.00
=====

=====
TAR Cinemax Ticket CHILD - 0
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 003 Price: RM 10.00
=====
```

## Loop 5:

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
Seats Available:
[VIP] CLASS 0 -> 12 (Seat No: 004 - 015 )
[Front] CLASS 1 -> 3 (Seat No: 113 - 115 )
[Back] CLASS 2 -> 15 (Seat No: 216 - 230 )
=====
Still have 30 seat(s)

Class Required (0,1,2)? 0

Number of Adult Seats required : 2
Number of child seats required
(Must be below 12 years old) : 0
Number of student seats required
(Must show registration card) : 0

=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] y

How many popcorn combo want to add on? 1
=====
```

- Bill Calculation

```
-----
Bill Calculation - Class 0

Number of Adults = 2 @ RM 20.00 = RM 40.00
Number of Child = 0 @ RM 10.00 = RM 0.00
Number of Student = 0 @ RM 12.00 = RM 0.00
Popcorn Combo = 1 @ RM 10.00 = RM 10.00
TOTAL TO PAY = RM 50.00

Payment Method-Cash[C]/ Debit Card[D]: c
PAID : RM 50
CASH PAYMENT : RM 50.00
CHANGE DUE : RM 0.00
-----
```

- Ticket

```
Here are your ticket:
=====
TAR Cinemax Ticket ADULT - 0
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm

Seat No: 004 Price: RM 20.00
=====

=====
TAR Cinemax Ticket ADULT - 0
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm

Seat No: 005 Price: RM 20.00
=====
```

- Ticket Sales Report

```
Next customer (Y = Yes/ N = No)? n
=====
          TICKET SALES REPORT

Movie Title :      Frozen
Date / Time :     Friday 22-11-2019 8pm

SEAT OCCUPANCY FOR EACH CLASS:

      Total Seats  Quantity Sold  Sold %
Class 0       15           5        33
Class 1       15          12        80
Class 2       30          15        50
-----          -----
OVERALL      60          32        54
-----          -----
```

SALES FOR EACH CATEGORY TYPE:

Category	Seats	Sales (RM)
ADULT	9	162.00
CHILD	6	42.00
STUDENT	17	162.00
TOTAL	32	366.00
	-----	-----

SALES FOR POPCORN COMBO:

Total Quantity	Quantity	Sales(RM)
	10	100.00

---

**Scenario 2:** Tickets are sold out, no more seats available at the end.

Some customers choose to add some promotion popcorn combo and some choose not to add popcorn combo.

Some customers choose to pay by cash, and some choose to pay by debit card.

Loop #	Input							Expected Results / Outputs							
	Seat Class	Adu lt	Chil d	Stude nt	Add On Yes[Y] /No[N]	Quantity Combo	Payment Method (Cash[C])/ Debit Card [D]	Total Seats	Seat NO	Ticket Charges (RM)				Total Amount Of Combo	Total
										Adult	Child	Student	Total		
1	2	12	3	0	Y	6	D	15	201 - 215	12 * 18 = 216	3 * 8 = 24	0 * 10 = 0	6 * 10 = 60	300	
2	0	2	5	8	N	-	C	15	001 - 015	2 * 20 = 40	5 * 10 = 50	8 * 12 = 96	-	186	
3	2	15	0	0	Y	5	D	15	216 - 230	15 * 18 = 270	0 * 8 = 0	0 * 10 = 0	5 * 10 = 50	320	
4	1	0	0	15	Y	5	C	15	105 - 115	0 * 16 = 0	0 * 6 = 0	15 * 8 = 120	5 * 10 = 50	170	
	Total	29	8	23		16		60		526	74	216	160	976	

## Output For Scenario 2

- Loop 1:

```
|-----| TAR Cinemax Ticket System |-----|
This Friday's movie: Frozen
Date(dd-mon-yyyy): 22-11-2019
Time: 8pm

Counter is now open for selling of tickets
***** Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 115 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 215 )
***** Class Required (0,1,2)? 2
Number of Adult Seats required : 12
Number of child seats required
(Must be below 12 years old) : 3
Number of student seats required
(Must show registration card) : 0

===== Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] y
How many popcorn combo want to add on? 6
=====
```

- Bill Calculation

```
|-----|
Bill Calculation - Class 2
Number of Adults = 12 @ RM 18.00 = RM 216.00
Number of Child = 3 @ RM 8.00 = RM 24.00
Number of Student = 0 @ RM 10.00 = RM 0.00
Popcorn Combo = 6 @ RM 10.00 = RM 60.00
TOTAL TO PAY = RM 300.00
Payment Method-Cash[C]/ Debit Card[D]: d
PAID : RM 300
DEBIT CARD : RM 300.00
CHANGE DUE : RM 0.00
|-----|
```

- Ticket

Here are your ticket:

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 201 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 202 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 203 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 204 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 205 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm

Seat No: 206 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 207 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 208 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 209 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 210 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 211 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 212 Price: RM 18.00

TAR Cinemax Ticket CHILD - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 213 Price: RM 8.00

TAR Cinemax Ticket CHILD - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 214 Price: RM 8.00

TAR Cinemax Ticket CHILD - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 215 Price: RM 8.00

## Loop 2

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 015 )
[Back] CLASS 2 -> 15 (Seat No: 216 - 230 )
=====
Still have 45 seat(s)

Class Required (0,1,2)? 0

Number of Adult Seats required : 2
Number of child seats required : 5
(Must be below 12 years old)
Number of student seats required : 8
(Must show registration card) : 8

=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] n
=====
```

- Bill Calculation

```
-----
Bill Calculation - Class 0

Number of Adults = 2 @ RM 20.00 = RM 40.00
Number of Child = 5 @ RM 10.00 = RM 50.00
Number of Student = 8 @ RM 12.00 = RM 96.00
TOTAL TO PAY = RM 186.00
Payment Method-Cash[C]/ Debit Card[D]: c
PAID : RM 190
CASH PAYMENT : RM 190.00
CHANGE DUE : RM 4.00
-----
```

- Ticket

```
Here are your ticket:
=====
TAR Cinemax Ticket ADULT - 0
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm

Seat No: 001 Price: RM 20.00
=====

=====
TAR Cinemax Ticket ADULT - 0
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm

Seat No: 002 Price: RM 20.00
=====
```

TAR Cinemax Ticket CHILD - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 003 Price: RM 10.00

TAR Cinemax Ticket CHILD - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 004 Price: RM 10.00

TAR Cinemax Ticket CHILD - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 005 Price: RM 10.00

TAR Cinemax Ticket CHILD - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 006 Price: RM 10.00

TAR Cinemax Ticket CHILD - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 007 Price: RM 10.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 008 Price: RM 12.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 009 Price: RM 12.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 010 Price: RM 12.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 011 Price: RM 12.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 012 Price: RM 12.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 013 Price: RM 12.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 014 Price: RM 12.00

TAR Cinemax Ticket STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 015 Price: RM 12.00

## Loop 3

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
 Seats Available:
 [VIP] CLASS 0 -> 0  No more Seat Available
 [Front] CLASS 1 -> 15 (Seat No: 101 - 015 )
 [Back] CLASS 2 -> 15 (Seat No: 216 - 230 )
=====
 ***No seat available for class 0
 Still have 30 seat(s)

Class Required (0,1,2)? 2

Number of Adult Seats required : 15
Number of child seats required
(Must be below 12 years old) : 0
Number of student seats required
(Must show registration card) : 0

=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] y

How many popcorn combo want to add on? 5
=====
```

- Bill Calculation

```
-----
Bill Calculation - Class 2

Number of Adults = 15 @ RM 18.00 = RM 270.00
Number of Child = 0 @ RM 8.00 = RM 0.00
Number of Student = 0 @ RM 10.00 = RM 0.00
Popcorn Combo = 5 @ RM 10.00 = RM 50.00
TOTAL TO PAY = RM 320.00
Payment Method-Cash[C]/ Debit Card[D]: d
PAID : RM 320
DEBIT CARD : RM 320.00
CHANGE DUE : RM 0.00
-----
```

- Ticket

Here are your ticket:	
=====	
TAR Cinemax Ticket	ADULT - 2
Movie : Frozen	
Date/Time : Friday 22-11-2019 8pm	
Seat No: 216	Price: RM 18.00
=====	
TAR Cinemax Ticket	ADULT - 2
Movie : Frozen	
Date/Time : Friday 22-11-2019 8pm	
Seat No: 217	Price: RM 18.00
=====	
TAR Cinemax Ticket	ADULT - 2
Movie : Frozen	
Date/Time : Friday 22-11-2019 8pm	
Seat No: 218	Price: RM 18.00
=====	
TAR Cinemax Ticket	ADULT - 2
Movie : Frozen	
Date/Time : Friday 22-11-2019 8pm	
Seat No: 219	Price: RM 18.00
=====	
TAR Cinemax Ticket	ADULT - 2
Movie : Frozen	
Date/Time : Friday 22-11-2019 8pm	
Seat No: 220	Price: RM 18.00
=====	
TAR Cinemax Ticket	ADULT - 2
Movie : Frozen	
Date/Time : Friday 22-11-2019 8pm	
Seat No: 221	Price: RM 18.00
=====	
TAR Cinemax Ticket	ADULT - 2
Movie : Frozen	
Date/Time : Friday 22-11-2019 8pm	
Seat No: 222	Price: RM 18.00
=====	

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 223 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 224 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 225 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 226 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 227 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 228 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 229 Price: RM 18.00

TAR Cinemax Ticket ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 230 Price: RM 18.00

## Loop 4

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
Seats Available:
[VIP] CLASS 0 -> 0 No more Seat Available
[Front] CLASS 1 -> 15 (Seat No: 101 - 015 )
[Back] CLASS 2 -> 0 No more Seat Available
=====
***No seat available for class 0
***No seat available for class 2
Still have 15 seat(s)

Class Required (0,1,2)? 1

Number of Adult Seats required : 0
Number of child seats required
(Must be below 12 years old) : 0
Number of student seats required
(Must show registration card) : 15

=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] y

How many popcorn combo want to add on? 5
=====
```

- Bill Calculation

```
-----
Bill Calculation - Class 1

Number of Adults = 0 @ RM 16.00 = RM 0.00
Number of Child = 0 @ RM 6.00 = RM 0.00
Number of Student = 15 @ RM 8.00 = RM 120.00
Popcorn Combo = 5 @ RM 10.00 = RM 50.00
TOTAL TO PAY = RM 170.00
Payment Method-Cash[C]/ Debit Card[D]: c
PAID : RM 200
CASH PAYMENT : RM 200.00
CHANGE DUE : RM 30.00
-----
```

- Ticket

```
Here are your ticket:
=====
TAR Cinemax Ticket STUDENT - 1
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm

Seat No: 101 Price: RM 8.00
=====

=====
TAR Cinemax Ticket STUDENT - 1
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm

Seat No: 102 Price: RM 8.00
=====
```

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 103 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 104 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 105 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 106 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 107 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 108 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 109 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 110 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 111 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 112 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 113 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 114 Price: RM 8.00

TAR Cinemax Ticket STUDENT - 1  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 115 Price: RM 8.00

- Ticket Sales Report

TICKET SALES REPORT				
Movie Title :	Frozen			
Date / Time :	Friday 22-11-2019 8pm			
SEAT OCCUPANCY FOR EACH CLASS:				
	Total Seats	Quantity Sold	Sold %	
Class 0	15	15	100	
Class 1	15	15	100	
Class 2	30	30	100	
OVERALL	60	60	100	
	-----	-----	-----	-----

SALES FOR EACH CATEGORY TYPE:		
Category	Seats	Sales (RM)
ADULT	29	526.00
CHILD	8	74.00
STUDENT	23	216.00
TOTAL	60	816.00
	-----	-----

SALES FOR POPCORN COMBO:		
Total Quantity	Quantity	Sales (RM)
	16	160.00

### Scenario 3: Not enough seats available, customer choose to exit[E] from the system.

They can select another class that still have seats available after the cancelled bill is shown on the system. At the end still have seats available.

(Some customers choose to add some promotion popcorn combo and some choose not to add popcorn combo. Some customers choose to pay by cash, and some choose to pay by debit card.)

Loop#	Input								Output							
	Seat Class	Adult	Child	Student	Not enough seats	Add On	Yes[Y]/No[N]	Quantity	Payment method	Total Seats	Seat No	Adult	Child	Student	Total Amount Of Combo	Total
1	0	2	2	2	-	N	-	C	6	001-006	40	20	24	-	84	
2	2	4	1	1	-	Y	2	C	6	201-206	72	8	10	20	110	
3	0	4	6	0	E	-	-	-	0	-	0	0	0	-	0	
4	1	2	0	0	-	N	-	D	2	101-102	32	0	0	-	32	
5	1	0	0	15	E	-	-	-	0	-	0	0	0	-	0	
6	0	4	0	6	E	-	-	-	0	-	0	0	0	-	0	
	Total	8	3	3				2		14		144	28	34	20	226

Seat Class	Seat Available (Seat No)
Class 0	007 – 015
Class 1	103 – 115
Class 2	207 – 230

## Output For Scenario 3

Loop 1

- Input

```
| TAR Cinemax Ticket System |
This Friday's movie: Frozen
Date(dd-mon-yyyy): 22-11-2019
Time: 8pm

Counter is now open for selling of tickets
***** Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 115 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 215 )
*****
Class Required (0,1,2)? 0
Number of Adult Seats required : 2
Number of child seats required (Must be below 12 years old) : 2
Number of student seats required (Must show registration card) : 2
=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] n
=====
```

- Bill Calculation

```
-----  
Bill Calculation - Class 0  
Number of Adults = 2 @ RM 20.00 = RM 40.00  
Number of Child = 2 @ RM 10.00 = RM 20.00  
Number of Student = 2 @ RM 12.00 = RM 24.00  
TOTAL TO PAY = RM 84.00  
Payment Method-Cash[C]/ Debit Card[D]: c  
PAID : RM 90  
CASH PAYMENT : RM 90.00  
CHANGE DUE : RM 6.00
-----
```

- Ticket

```
Here are your ticket:  
=====  
TAR Cinemax Ticket          ADULT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 001      Price: RM 20.00  
=====  
=====  
TAR Cinemax Ticket          ADULT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 002      Price: RM 20.00  
=====  
=====  
TAR Cinemax Ticket          CHILD - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 003      Price: RM 10.00  
=====  
=====  
TAR Cinemax Ticket          CHILD - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 004      Price: RM 10.00  
=====  
=====  
TAR Cinemax Ticket          STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 005      Price: RM 12.00  
=====  
=====  
TAR Cinemax Ticket          STUDENT - 0  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 006      Price: RM 12.00  
=====  
Next customer (Y = Yes/ N = No)?
```

## Loop 2

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
Seats Available:
[VIP] CLASS 0 -> 9 (Seat No: 007 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 015 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 230 )
=====
Still have 54 seat(s)
Class Required (0,1,2)? 2
Number of Adult Seats required : 4
Number of child seats required
(Must be below 12 years old) : 1
Number of student seats required
(Must show registration card) : 1
=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] y
How many popcorn combo want to add on? 2
=====
```

- Bill Calculation

```
-----  
Bill Calculation - Class 2  
-----  
Number of Adults = 4 @ RM 18.00 = RM 72.00  
Number of Child = 1 @ RM 8.00 = RM 8.00  
Number of Student = 1 @ RM 10.00 = RM 10.00  
Popcorn Combo = 2 @ RM 10.00 = RM 20.00  
TOTAL TO PAY = RM 110.00  
Payment Method-Cash[C]/ Debit Card[D]: c  
PAID : RM 150  
CASH PAYMENT : RM 150.00  
CHANGE DUE : RM 40.00  
-----
```

- Ticket

```
Here are your ticket:  
=====  
TAR Cinemax Ticket          ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 201      Price: RM 18.00  
=====  
=====  
TAR Cinemax Ticket          ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 202      Price: RM 18.00  
=====  
=====  
TAR Cinemax Ticket          ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 203      Price: RM 18.00  
=====  
=====  
TAR Cinemax Ticket          ADULT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 204      Price: RM 18.00  
=====  
=====  
TAR Cinemax Ticket          CHILD - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 205      Price: RM 8.00  
=====  
=====  
TAR Cinemax Ticket          STUDENT - 2  
Movie : Frozen  
Date/Time : Friday 22-11-2019 8pm  
Seat No: 206      Price: RM 10.00  
=====  
Next customer (Y = Yes/ N = No)? -
```

### Loop 3

(Not enough seats available, customer choose to exit the system/program)

- Input

```
Next customer (Y = Yes/ N = No)? y
*****
          Seats Available:
[VIP]   CLASS 0 -> 9  (Seat No: 007 - 015 )
[Front]  CLASS 1 -> 15 (Seat No: 101 - 015 )
[Back]   CLASS 2 -> 24 (Seat No: 207 - 230 )
*****
Still have 48 seat(s)

Class Required (0,1,2)? 0

Number of Adult Seats required : 4
Number of child seats required : 6
(Must be below 12 years old)
Number of student seats required : 0
(Must show registration card)
```

- Total number of ticket selected by customer exceed the total number of seats available. Customer choose to Exit.

```
Not enough Seat. Only 9 seat(s) available.
Do you want to continue ? Continue[C] / Exit[E] E
```

- Cancelled bil

```
PAYMENT CANCELLED

-----
Bill Calculation - Class 0

Number of Adults      = 0      @ RM    20.00 = RM      0.00
Number of Child       = 0      @ RM    10.00 = RM      0.00
Number of Student     = 0      @ RM    12.00 = RM      0.00
TOTAL TO PAY =           RM      0.00
```

## Loop 4

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
Seats Available:
[VIP] CLASS 0 -> 9 (Seat No: 007 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 015 )
[Back] CLASS 2 -> 24 (Seat No: 207 - 230 )
=====
Still have 48 seat(s)
Class Required (0,1,2)? 1
Number of Adult Seats required : 2
Number of child seats required (Must be below 12 years old) : 0
Number of student seats required (Must show registration card) : 0
=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] n
=====
```

- Bill Calculation

```
=====
Bill Calculation - Class 1
Number of Adults = 2 @ RM 16.00 = RM 32.00
Number of Child = 0 @ RM 6.00 = RM 0.00
Number of Student = 0 @ RM 8.00 = RM 0.00
TOTAL TO PAY = RM 32.00
Payment Method-Cash[C]/ Debit Card[D] : d
PAID : RM 32
DEBIT CARD : RM 32.00
CHANGE DUE : RM 0.00
=====
```

- Ticket

```
Here are your ticket:
=====
TAR Cinemax Ticket ADULT - 1
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 101 Price: RM 16.00
=====

=====
TAR Cinemax Ticket ADULT - 1
Movie : Frozen
Date/Time : Friday 22-11-2019 8pm
Seat No: 102 Price: RM 16.00
=====
```

## Loop 5

(Not enough seats available, customer choose to exit the system/program)

- Input

```
Next customer (Y = Yes/ N = No)? y
=====
          Seats Available:
[VIP]   CLASS 0 -> 9  (Seat No: 007 - 015 )
[Front] CLASS 1 -> 13 (Seat No: 103 - 015 )
[Back]  CLASS 2 -> 24 (Seat No: 207 - 230 )
=====
Still have 46 seat(s)

Class Required (0,1,2)? 1

Number of Adult Seats required : 0
Number of child seats required : 0
(Must be below 12 years old)    : 0
Number of student seats required
(Must show registration card)   : 15
```

- Total number of ticket selected by customer exceed the total number of seats available. Customer choose to Exit.

```
Not enough Seat. Only 13 seat(s) available.
Do you want to continue? Continue[C] / Exit[E] E
```

- Cancelled Bill

```
PAYMENT CANCELLED

-----
Bill Calculation - Class 1

Number of Adults   = 0    @ RM    16.00 = RM      0.00
Number of Child    = 0    @ RM     6.00 = RM      0.00
Number of Student  = 0    @ RM     8.00 = RM      0.00
TOTAL TO PAY =           RM      0.00
```

## Loop 6

(Not enough seats available, customer choose to exit the system/program)

- Input

```
Next customer (Y = Yes/ N = No)? Y
=====
          Seats Available:
[VIP]   CLASS 0 -> 9 (Seat No: 007 - 015 )
[Front]  CLASS 1 -> 13 (Seat No: 103 - 015 )
[Back]   CLASS 2 -> 24 (Seat No: 207 - 230 )
=====
Still have 46 seat(s)

Class Required (0,1,2)? 0

Number of Adult Seats required : 4
Number of child seats required : 0
(Must be below 12 years old)
Number of student seats required : 6
(Must show registration card)
```

- Total number of ticket selected by customer exceed the total number of seats available. Customer choose to Exit.

```
Not enough Seat. Only 9 seat(s) available.
Do you want to continue ? Continue[C] / Exit[E] e
```

- Cancelled Bill

```
PAYMENT CANCELLED

-----
Bill Calculation - Class 0

Number of Adults      = 0    @ RM    20.00 = RM      0.00
Number of Child       = 0    @ RM    10.00 = RM      0.00
Number of Student     = 0    @ RM    12.00 = RM      0.00
TOTAL TO PAY =           RM      0.00
```

- Ticket Sales Report

TICKET SALES REPORT				
Movie Title :	Frozen			
Date / Time :	Friday 22-11-2019 8pm			
SEAT OCCUPANCY FOR EACH CLASS:				
	Total Seats	Quantity Sold	Sold %	
Class 0	15	6	40	
Class 1	15	2	13	
Class 2	30	6	20	
OVERALL	60	14	24	
	-----	-----	-----	-----
SALES FOR EACH CATEGORY TYPE:				
Category	Seats	Sales (RM)		
ADULT	8	144.00		
CHILD	3	28.00		
STUDENT	3	34.00		
TOTAL	14	206.00		
	-----	-----	-----	-----
SALES FOR POPCORN COMBO:				
Total Quantity	Quantity	Sales (RM)		
	2	20.00		
	-----	-----	-----	-----

## Extra Features

### 1. Selling Promotional popcorn combo

Customer can eat popcorn while watching movie. They can get the popcorn combo with a cheaper price if they choose to purchase the promotional popcorn combo.

- a) Customer choose to add on this promotional popcorn combo. [Y]

```
| TAR Cinemax Ticket System |
This Friday's movie: Frozen
Date(dd-mon-yyyy): 22-11-2019
Time: 8pm
Counter is now open for selling of tickets
*****
Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 115 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 215 )
*****
Class Required (0,1,2)? 0
Number of Adult Seats required : 2
Number of child seats required (Must be below 12 years old) : 2
Number of student seats required (Must show registration card) : 0
=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] Y
How many popcorn combo want to add on? 2
=====
```

- b) Customer don't want to add on the popcorn combo. [N]

```
| TAR Cinemax Ticket System |
This Friday's movie: Frozen
Date(dd-mon-yyyy): 22-11-2019
Time: 8pm
Counter is now open for selling of tickets
*****
Seats Available:
[VIP] CLASS 0 -> 15 (Seat No: 001 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 115 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 215 )
*****
Class Required (0,1,2)? 0
Number of Adult Seats required : 2
Number of child seats required (Must be below 12 years old) : 2
Number of student seats required (Must show registration card) : 0
=====
Friday Deal !!!!!!!!
POPCORN COMBO For only RM 10 !!!
Do you want to add on popcorn combo? Yes[Y]/ No[N] N
=====
```

## 2. Payment Method

It provides customers with more payment method and they can choose to pay by cash or debit card.

a) Customer choose to pay by cash [C]

Bill Calculation - Class 1					
Number of Adults	= 1	@ RM	16.00	= RM	16.00
Number of Child	= 2	@ RM	6.00	= RM	12.00
Number of Student	= 0	@ RM	8.00	= RM	0.00
Popcorn Combo	= 2	@ RM	10.00	= RM	20.00
TOTAL TO PAY =				RM	48.00
Payment Method-Cash[C]/ Debit Card[D] : C				PAID :	RM 50
CASH PAYMENT :					RM 50.00
CHANGE DUE :					RM 2.00

b)Customer choose to pay by debit card [D]

Bill Calculation - Class 2					
Number of Adults	= 2	@ RM	18.00	= RM	36.00
Number of Child	= 10	@ RM	8.00	= RM	80.00
Number of Student	= 0	@ RM	10.00	= RM	0.00
Popcorn Combo	= 5	@ RM	10.00	= RM	50.00
TOTAL TO PAY =				RM	166.00
Payment Method-Cash[C]/ Debit Card[D] : D				PAID :	RM 166
DEBIT CARD :					RM 166.00
CHANGE DUE :					RM 0.00

## 3. Display available seats number

Customer able to see the number of seats available and also the seats number before they purchase for the ticket.

Seats Available:  
[VIP] CLASS 0 -> 11 (Seat No: 005 - 015 )  
[Front] CLASS 1 -> 12 (Seat No: 104 - 015 )  
[Back] CLASS 2 -> 14 (Seat No: 217 - 230 )  
\*\*\*\*\*

## 4. Sales report for the promotional popcorn ticket.

SALES FOR POPCORN COMBO:			
Total Quantity	Quantity	Sales(RM)	
	11	110.00	

## 5. Not enough seats available

The number of tickets requested is greater than the number of available seats. Therefore, customer can choose either exit (choose other class that have enough seats available) the program or re-enter the number of tickets they need.

a)Customer choose to re-enter the quantity of ticket they need [C]

```
Next customer (Y = Yes/ N = No)? y
*****
Seats Available:
[VIP] CLASS 0 -> 10 (Seat No: 006 - 015 )
[Front] CLASS 1 -> 15 (Seat No: 101 - 015 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 230 )
*****
Still have 55 seat(s)

Class Required (0,1,2)? 0

Number of Adult Seats required : 0
Number of child seats required
(Must be below 12 years old) : 0
Number of student seats required
(Must show registration card) : 12

Not enough Seat. Only 10 seat(s) available.
Do you want to continue ? Continue[C] / Exit[E] C
Please enter again:
Number of Adult Seats required : 0
Number of child seats required
(Must be below 12 years old) : 0
Number of student seats required
(Must show registration card) : 10
=====
```

b)Customer choose to exit the program [E]

- Customer can only continue with the program after the cancelled bil is display.

```
Next customer (Y = Yes/ N = No)? y
*****
Seats Available:
[VIP] CLASS 0 -> 0 No more Seat Available
[Front] CLASS 1 -> 9 (Seat No: 107 - 015 )
[Back] CLASS 2 -> 30 (Seat No: 201 - 230 )
*****
***No seat available for class 0
Still have 39 seat(s)

Class Required (0,1,2)? 1

Number of Adult Seats required : 4
Number of child seats required
(Must be below 12 years old) : 2
Number of student seats required
(Must show registration card) : 6

Not enough Seat. Only 9 seat(s) available.
Do you want to continue? Continue[C] / Exit[E] E
PAYMENT CANCELLED

-----
Bill Calculation - Class 1

Number of Adults = 0 @ RM 16.00 = RM 0.00
Number of Child = 0 @ RM 6.00 = RM 0.00
Number of Student = 0 @ RM 8.00 = RM 0.00
TOTAL TO PAY = RM 0.00
-----
```

## Program Listing











































# BACS1013 & 1014 Problems Solving and Programming

## Assignment Rubrics

Name: \_\_\_\_\_

Program: \_\_\_\_\_

Area	Criteria	Developing 0 - 4	Approaching 5 - 7	Ideal 8 - 10	Remarks
Program & UI Design [20]	Final pseudocode/flowchart is complete, correct, concise and consistent to the code.				
	UI is intuitive and user-friendly.				
Basic requirements [30]	The program meets all the basic requirements.				
	There are no errors* in the program <i>: this mark will be capped at the mark given for the preceding criteria</i>				
	The program demonstrates excellent understanding of basic programming concepts (decisions, loops, basic user defined functions).				
Program Efficiency & Readability [20]	Code uses the best approach in every case.				
	No errors, code is clean, understandable, and well-organized.				
Additional features [20]	The program includes additional functionalities and features that are appropriate and well explained.				
	The additional functionalities and features are well explained and convincing.				
Report [10]	The report is complete and well-organized.				
<b>Total Marks</b>					

(Note: This rubric needs to be attached in the last page of assignment report)

