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TITTLE: FOOD / DRINKS (SYSTEM FOR OWNER FAST FOOD RESTAURANT)

ASSIGNMENT 1: FAST FOOD (DAILY PROFIT)

1. Identify the problem

Fast food is a type of mass-produced cuisine intended for commercial resale with a significant emphasis on "**speed of service**". This fast food was developed as a business tactic to accommodate the increasing number of busy passengers, travellers, and salaried employees who do not have time to sit and wait for their meals at restaurants. Customers with tight time constraints don’t feel overwhelmed by having to wait for their food to be cooked on the spot by prioritising the speed of service (as expected from a traditional "sit-down" restaurant). Regular restaurants will not promise that the food ordered will be ready in a short time. It depends on the number of customers and the number of employees in the restaurant. The more employees, the faster customers get their orders. But not all restaurant operators can afford to employ many employees. Therefore, fast food restaurants will be the choice of most people who have a shortage of time to eat.

The fastest form of "fast food" consists of pre-cooked meals kept in a state of readiness for the customer’s arrival. For example, the food provided includes fried chicken, burgers, pizza, potatoes, porridge, and various types of drinks that are easy to eat no matter where the customer is. Customers will be served in a short time. Customers only need a few minutes to get their order, and then they can choose to eat at the branch or want to take the food away and eat elsewhere according to their convenience. Other fast-food outlets, especially hamburger shops (McDonald’s, Burger King, etc.), use mass-prepared ingredients (bread and condiments in bags, frozen beef bread, washed, pre-sliced ​​vegetables, or both but hamburgers and fries are always cooked fresh (or at least recently) and installed "to order" (as in a diner).

While various forms of food can be "prepared rapidly," the term "fast food" refers to food sold in restaurants or supermarkets that contains frozen, heated, or pre-cooked components and is provided to consumers in packed form for take-out or take-home. Fast food restaurants have traditionally been distinguished by their ability to serve food through drive thru. There may be branches or kiosks that do not provide shelter or seating for customers to eat there, but customers can still enjoy the fast food by getting it on a drive thru. **Drive through or drive thru** (sensational version of the word "through") is a type of take-out service that allows consumers to buy things without having to leave their vehicle. Jordan Martin invented this format in the 1930s in the United States, and it has subsequently spread to other countries. The first drive-through banking facility in America was constructed by Hillcrest State Bank in Dallas, Texas. It's a structure across from SMU that was designed by George Dahl and constructed in the 1920s. The Grand National Bank of St. Louis, Missouri, utilised a drive window teller for the second time in 1930. At the time, the driving cashier only accepted deposits.

Orders are usually taken in person at the window using a microphone. A drive-in differs from a drive-in in several ways; for example, in a drive-in, cars form a line and move in one direction and rarely park, whereas a drive-in allows cars to park next to each other, food is usually delivered to the window by a waiter known as a carhop, and customers can eat while remaining in their parked car. During peak periods, however, passers-by may switch to a "order in the window, then park in a designated space" model, in which customers will receive their food from the attendant when it is ready to be served, in order to maintain queues and avoid traffic flow problems. As a result, the two service models are perceived to have a relationship.

The concept of selling ready-to-eat meals has a strong link to urban development. In many emerging city homes, there is insufficient space or necessary food preparation equipment. Additionally, cooking fuel can be as expensive as the produce you buy. Because it was costly, frying food in a flaming oil barrel proved risky. Homeowners are concerned that a raging kitchen fire may "quickly consume the entire neighbourhood." As a result, city dwellers are encouraged to purchase pre-cooked meat or starches like bread or noodles. Cities in Ancient Rome had street booths, which were big counters with containers in the centre where food or beverages were served. Americans began to spend and purchase more during the post-World War II economic boom, as the economy grew swiftly, and the consumerism culture flourished. As a result of this new desire to own it all, coupled with the steps women take while men leave, both members of the household began working outside the home. Eating out, which was formerly considered a luxury, has become more common, and eventually a need. For lunch and supper, workers and working families require quick service and low-cost cuisine.

The total demand for fast food, whether through counter service, take-out, drive-thru, or delivery, is always increasing, especially in urban areas. Fast service delivery, good taste suitable for all ages, and having a wide range of options at affordable prices make customers eager and not shy about repeating the order and trying all the new menus. Although the whole country, including ours, is now hit by the COVID-19 epidemic, it is not a barrier for fast food enthusiasts to get their favourite foods. Although they are not allowed to leave the house at will, they can place orders online and just wait for the food to arrive in front of the house.

In addition, fast food store owners and operators need to take care of every service provided to customers so that they are satisfied and want to recommend our premises to friends and the public. Many customers make fast food restaurants their favourite place because there are many facilities available, such as a comfortable place, ample parking, air conditioning, drive-through service, and free Wi-Fi. So, they can work as comfortably as with their families. Therefore, fast food store owners need to calculate daily profits and plan expenses well so that employees' salaries can be given on time and there is no unreasonable pay cut. With so many customers, it certainly requires a lot of cooking materials, a lot of workers, and a lot of water and electricity consumption. But fast-food store owners still manually calculate daily profits even though they know there is an increase in customers. This could have a detrimental effect in the future. In addition to employee negligence, incorrect calculations can also cause losses to store owners. Fast food restaurants need to have a special system to calculate their daily income to continue business in the future.

1. Understand the problem

Rising prices of goods at present will affect food traders. The issue of rising prices of goods, especially raw materials such as chicken, vegetables, and chicken eggs, has become one of the hot topics discussed on social media. Price increases that exceed the "normal" level, or "excessive" price increases, are difficult to accept, especially by consumers, especially those with low incomes. The merchants who run the restaurant business need more spending capital to run the business as usual daily. This burdens restaurant owners, especially those who are new to running a business. The cause of the increase in the price of goods is the increase in the price of petrol. Petroleum is used by vehicles and factories to move machinery. The increase in the price of petrol will cause an increase in production and transportation costs. Manufacturers are forced to raise the prices of their products. In addition, demand exceeds supply during festive seasons such as Hari Raya and Chinese New Year, so consumers will spend a lot in preparation for their respective festivals. High demand will cause producers to increase the price of essential goods. For example, the price of chicken, meat, ingredients for making biscuits and others increases. Spending more than necessary by consumers leads to an increase in demand. Next, the cause of the increase in raw material prices is the attitude of traders who are concerned about profit. Traders are increasingly taking advantage, especially during the festive season. Various techniques are used by traders to make a profit, such as giving fake discounts and gifts that are supposedly attractive. As a result, restaurant operators have to spend a lot of capital to provide the necessities for their business. They need to be smart in comparing prices and buying goods in bulk to get a cheaper price than if the purchase is made in small quantities.

Next, to avoid huge losses, food traders need to be smart about finding reliable suppliers. The fast-food restaurant business requires an adequate and quality supply of raw materials daily. The cooking ingredients used, such as chicken, meat, and vegetables, are needed in a fresh condition so that the food produced is tasty, clean, and will not harm customers. Traders can lose a lot of money if they choose the wrong supplier. This is since some suppliers are middlemen who make large profits in exchange for selling items at a higher price. The trader's capital will undoubtedly rise because of this. High supplier pricing does not always imply high material quality. There are still irresponsible vendors that mix new and old cooking materials only to get rid of their stock. Furthermore, traders must ensure that the supplier is a trusted company with a guarantee that raw materials will always be available in sufficient amounts when clients order in higher quantities than usual. Fast food restaurant owners need to ensure that the amount of ingredients needed, along with the price, is affordable so that they can still achieve a substantial daily profit. To achieve a high level of daily profit, they need to ensure that the selling price is higher than the capital price. Therefore, capital calculations for cooking materials, employee salaries, shop rent, and various bills need to be calculated correctly to avoid an increase in debt and a decrease in employee salaries.

In addition, traders need to set the quantity of food that needs to be cooked daily to avoid increased food waste. Merchants need to keep an eye on the times when customers are crowded. For example, at lunch time, employees take the opportunity to get food quickly because their break time is short. In addition, customers are crowded on weekends or school holidays. Many parents bring their children to get their favourite food. The same goes for teenagers, who make fast food restaurants their place to hang out with friends, release stress from studying, and so on. Customers certainly like restaurants that have a variety of menus. So, for restaurant traders who want to prepare a variety of menus, they need a lot of cooking ingredients. The need for a lot of cooking ingredients certainly requires a lot of capital. In addition to the high cost of capital, they also need to think about employee salaries, store rent, and the various bills that need to be settled. Therefore, traders must ensure that every calculation made is accurate. There may be some fast-food restaurant operators who are less skilled at calculations and need a system that can help them make calculations accurately and quickly. This will make it easier for traders to calculate their daily budget.

1. Identify alternative ways to solve the problem

* Hire an employee to calculate the required capital and profits for each day.

|  |  |
| --- | --- |
| Pros | Cons |
| computational work becomes faster and easier by acquiring assistants in the computational process | need to invest more money to pay extra employees |

* Make calculations using an online application that is already available and free.

|  |  |
| --- | --- |
| Pros | Cons |
| no need to spend more money to pay extra employees and easy to use without having to take a long time to learn how to use it | cannot be used when experiencing poor internet access or having internet connection problems especially on rainy days |

* Produce systems for the personal use of fast-food store operators to calculate all shop needs, employee salaries, profits, and losses.

|  |  |
| --- | --- |
| Pros | Cons |
| easier to use, saves time, money and durable. | needs to be upgraded as the number of customers increases so that the system is able to function properly |

1. Select the best way to solve the problem from the list of alternative solution.

- Produce a system for the personal use of fast-food shop operators to calculate daily income considering gross profit and net profit.

- This method will simplify the calculations in the fast-food business without requiring more budget to pay extra employees and is easily accessible even with internet connection problems.

1. List instructions (steps) that enable you to solve the problem using the selected solution.
2. Enter the username.

|  |  |
| --- | --- |
| Username | Delicious Bistro (Nurul) |

1. Enter the day and date of the day.

|  |  |
| --- | --- |
| Day | Saturday |
| Date | 18/12/2021 |

1. State the number of types of fast food and beverages available.

|  |  |
| --- | --- |
| No. of types of fast food available | 5 |
| No. of types of beverages available | 3 |

1. List the types of food prepared that day.

|  |  |
| --- | --- |
| Available fast food | * Fried Chicken * Burger * Porridge * Nasi Lemak * Fries/Wedges |
| Available beverages | * Chocolate * Coffee * Juice |

1. Enter the total price of the ingredients needed for cooking and making the drinks. This is known as capital.
2. Enter the total sales price earn on that day.
3. Calculate the gross profit.

|  |  |
| --- | --- |
| Profit | Calculation |
| Gross profit | Sales price – capital |

1. Enter total employee’s salary
2. Enter store rental costs
3. Enter electric bill price
4. Enter water bill price
5. Calculate total bill price

|  |  |
| --- | --- |
| Bill | Calculation |
| Total bill | Electric bill + water bill |

1. Calculate hidden costs

|  |  |
| --- | --- |
| Costs | Calculation |
| Hidden costs | Employee’s salary + store rental costs + total bill price |

1. Calculate net profit

|  |  |
| --- | --- |
| Profit | Calculation |
| Net profit | Gross Profit – hidden costs |

1. Display gross profit and net profit
2. Evaluate the solution

This method should be used daily to calculate the daily profit earned taking into account the gross profit and net profit can then be recorded in a special log book for future reference. With this, the employee’s salary can also be given fairly and will not add to the debt of the trader by much. As for employees' salaries, traders need to issue payment receipts as proof and make copies to avoid various other problems. To get more profit, merchants need to add various menus and hold promotions on certain days to attract more customers.

1. Algorithm
2. Start
3. Enter the username.
4. Enter the day and date
5. Enter the number of types of fast food and beverages available.
6. Enter the types of food prepared that day.
7. Enter the total price of the ingredients needed(capital).
8. Enter the total sales price earn on that day
9. Calculate the gross profit by using formula Gross profit = Sales price – capital.
10. Display gross profit
11. Enter total employee’s salary
12. Enter store rental costs
13. Enter electric bill price
14. Enter water bill price
15. Calculate total bill price by using formula Total bill price = Electric bill price + water bill price
16. Calculate hidden costs by using formula Hidden Costs = Employee’s salary + store rental costs + total bill price
17. Calculate net profit by using formula Net profit = Gross Profit – hidden costs
18. Display the net profits.
19. Finish
20. Pseudocode

Start

Enter the username

Enter the day and date

Enter the number of types of fast food and beverages available

Enter the types of food prepared that day

Enter the total price of the ingredients needed(capital)

Enter the total sales price earn on that day

Calculate the gross profit by using formula

Gross profit = Sales price – capital

Display gross profit

Enter total employee’s salary

Enter store rental costs

Enter electric bill price

Enter water bill price

Calculate total bill price by using formula

Total bill price = Electric bill price + water bill price

Calculate hidden costs by using formula

Hidden Costs = Employee’s salary + store rental costs + total bill price

Calculate net profit by using formula

Net profit = Gross Profit – hidden costs

Display the net profits.

Stop

1. Flow Chart

Start

Enter the username

Enter the day and date

Enter the number of types of fast food and beverages available

Enter the types of food prepared that day

Enter the total price of the ingredients needed(capital)

Enter the total sales price earn on that day

Gross profit = Sales price – capital

Display gross profit

Enter total employee’s salary

Enter store rental costs

Enter electric bill price

Enter water bill price

Total bill price = Electric bill price + water bill price

Hidden Costs = Employee’s salary + store rental costs + total bill price

Net profit = Gross Profit – hidden costs

Display the net profits.

Stop

1. Coding

**package** project;

**import** java.util.Scanner;

**public** **class** FastFood {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc = **new** Scanner(System.***in***);

String username;

String day,date;

**int** foodType, beverageType;

String foodPrepared;

**double** capital,salePrice,grossProfit,salary,bill1,bill2,totalBillPrice,rentalCosts,hiddenCosts,netProfits;

System.***out***.println("==========================================================================================================");

System.***out***.println(" WELCOME TO LAZAT SEGERA RESTAURANT! ");

System.***out***.println("==========================================================================================================");

System.***out***.println("Do you want to know your profit amount today?");

System.***out***.println("You need to enter all the details below.");

System.***out***.println();

//user need to enter their name, day and date

System.***out***.println("Username : ");

username = sc.nextLine();

System.***out***.println("Day : ");

day = sc.nextLine();

System.***out***.println("Date: ");

date = sc.nextLine();

//user need to enter how much the available fast food and beverage for that day

System.***out***.println("Number of available fast food : ");

foodType = sc.nextInt();

System.***out***.println("Number of available beverage : ");

beverageType = sc.nextInt();

//user list the fast foods and beverages

System.***out***.println("Available fast food and beverage: ");

foodPrepared = sc.next();

//the user enters the total price of the ingredients purchased for cooking and making the drinks. This is also called as capital.

System.***out***.println("Enter total price for ingredient needed(capital) : RM ");

capital=sc.nextDouble();

//the user enters the total sales price earned on that day.

System.***out***.println("Enter total selling price : RM ");

salePrice=sc.nextDouble();

//calculate the gross profit

grossProfit = salePrice - capital;

System.***out***.printf("Your gross profit for today is RM%.2f" , grossProfit);

//calculate the hidden costs

System.***out***.println("\nEnter total employee's salary : RM");

salary=sc.nextDouble();

System.***out***.println("Enter store rental costs : RM");

rentalCosts=sc.nextDouble();

System.***out***.println("Enter electric bill price : RM");

bill1=sc.nextDouble();

System.***out***.println("Enter water bill price : RM");

bill2=sc.nextDouble();

totalBillPrice = bill1 + bill2;

System.***out***.printf("Total bill price : RM%.2f " , totalBillPrice);

hiddenCosts = salary + rentalCosts + totalBillPrice;

System.***out***.printf("\nYour hidden costs is RM%.2f" , hiddenCosts);

//calculate the net profit

netProfits = grossProfit - hiddenCosts;

System.***out***.printf("\nYour net profit for today is RM%.2f " , netProfits);

System.***out***.println();

System.***out***.println("Summary<3");

System.***out***.println("\nUsername : " + username);

System.***out***.println("Day : " + day);

System.***out***.println("Date: " + date);

System.***out***.println("Number of available fast food : " + foodType);

System.***out***.println("Number of available beverage : " + beverageType);

System.***out***.println("Available fast food and beverage: " + foodPrepared );

System.***out***.println("Total price for ingredient needed(capital) : RM " + capital);

System.***out***.println("Total sale price : RM " + salePrice);

System.***out***.printf("Gross profit for today is RM%.2f" , grossProfit);

System.***out***.printf("\nNet profit for today is RM%.2f " , netProfits);

}

}

1. Output

==========================================================================================================

WELCOME TO LAZAT SEGERA RESTAURANT!

==========================================================================================================

Do you want to know your profit amount today?

You need to enter all the details below.

Username :

Azurin

Day :

Khamis

Date:

16/12/2021

Number of available fast food :

3

Number of available beverage :

2

Available fast food and beverage:

Burger,FriedChicken,Fries,ChocolateSmothies,CoffeeIce

Enter total price for ingredient needed(capital) : RM

256.8

Enter total selling price : RM

589.5

Your gross profit for today is RM332.70

Enter total employee's salary : RM

200

Enter store rental costs : RM

11.30

Enter electric bill price : RM

5.20

Enter water bill price : RM

4.30

Total bill price : RM9.50

Your hidden costs is RM220.80

Your net profit for today is RM111.90

Summary<3

Username : Azurin

Day : Khamis

Date: 16/12/2021

Number of available fast food : 3

Number of available beverage : 2

Available fast food and beverage: Burger,FriedChicken,Fries,ChocolateSmothies,CoffeeIce

Total price for ingredient needed(capital) : RM 256.8

Total sale price : RM 589.5

Gross profit for today is RM332.70

Net profit for today is RM111.90

ASSIGNMENT 2: FAST FOOD (CUSTOMER ORDER)

1. Identify problem

With a variety of requests from customers, it has become a norm for restaurant owners. Customers who want food delivered can do so, but there are also some who wish to sit in the restaurant with their families and enjoy their meal. Because fast food is a high-demand product that appeals to people of all ages, it is certain to attract many customers. Apart from preparing quick and delicious meals, fast food restaurants typically offer a variety of meal options. Food sets are available to package meals for a family, friends, or even a single person. Customers can choose from a variety of packages based on the quantity of persons they will be inviting. As a result, the number of people visiting fast food restaurants is steadily increasing. Usually, bookings are made directly with the restaurant owner to identify the number of people who will be there, set the day, find available vacancies, and make a deal. Managing orders from various customers via a manual system is extremely tough for restaurant proprietors.

1. Understand the problem

Fast food restaurant owners do not have a dedicated system for customers who want to order food and dining tables. Some owners only write orders made on paper, and the risk of losing the paper is high. When a document containing a customer’s order is lost, it can cause the restaurant owner to forget. This, in turn, can cause anger and frustration from customers who may have made early plans to celebrate something or make a surprise for their loved ones. It is natural for people to often forget something, even if it is an important thing, because they are busy working and no notes are made to remind them. When there are complaints from customers, this will affect the reputation of the restaurant because there is a service that disappoints customers. When reputation falls, it will result in the loss of trust of other customers, and in turn, restaurant owners will lose their customers.

1. Identify alternative ways to solve the problem.

* Provide a logbook to store customer order data and place it in a special place.

|  |  |
| --- | --- |
| Pros | Cons |
| Booking information is put in one place | If the book is lost, then all the booking information will be lost and use a lot of paper |

* Provide a system for customer bookings.

|  |  |
| --- | --- |
| Pros | Cons |
| Easier to use at any time and produce more accurate and precise calculations. | Only suitable for use in computers or laptops only. |

1. Select the best way to solve the problem from the list of alternative solution.

* Provide a system for customer bookings.
* This method was chosen because it is more efficient to be used by restaurant owners to record and determine prices for orders made by customers.

1. List instructions (steps) that enable you to solve the problem using the selected solution.
   * 1. Enter customer’s name

|  |  |
| --- | --- |
| Customer’s name | NURUL |

* + 1. Enter date of booking

|  |  |
| --- | --- |
| Date of booking | 12/1/22 |

* + 1. Enter booked day

|  |  |
| --- | --- |
| Booked Day | Wednesday |

* + 1. Enter booked time

|  |  |
| --- | --- |
| Booked time | 8.30p.m. |

* + 1. Enter the number of food package

|  |  |
| --- | --- |
| Number of food package | 3 |

vi) Enter the number of sets

|  |  |
| --- | --- |
| Number of set | 2 |

vii) Enter the normal price

|  |  |
| --- | --- |
| Normal price | Rm45 |

viii) Calculate price after discount

|  |  |
| --- | --- |
| Price | Calculation |
| Price after discount | Discount Price = normal price – (0.15 x normal price) |

ix) Display price after discount

x) Calculate total price

|  |  |
| --- | --- |
| Price | Calculation |
| Total price | Paid = discount price x number of sets |

xi) Display total price

xii) Choose for delivery or dine in by enter the number of 1 or 2

|  |  |
| --- | --- |
| Delivery | 1 |
| Dine in | 2 |

xiii) If delivery will display (“We will deliver customer’s order 15 minutes early).

If dine-in will display (“A table that has 8 seats will be provided).

xiv) Stop

1. Evaluate the solution

This method can help restaurant owners who receive orders from customers. The calculation process becomes faster, so customers do not need to wait a long time to know the price they have to pay. In addition, customers can choose a package that suits the number of people who will attend. This not only makes it easier for restaurant owners, but it also makes it easier for customers to deal with restaurant owners according to their budget estimates.

1. Algorithm

1. Start

2. Enter the system that owner restaurant wants to use.

3. if system equal to 1

4. Enter the username

5. Enter the day and date

6. Enter the number of types of fast food and beverages available

7. Enter the types of food prepared that day

8. Enter the total price of the ingredients needed(capital)

9. Enter the total sales price earn on that day

10.Calculate the gross profit by using formula

Gross profit = Sales price – capital

11. Display gross profit

12. Enter total employee’s salary

13. Enter store rental costs

14. Enter electric bill price

15. Enter water bill price

16. Calculate total bill price by using formula

Total bill price = Electric bill price + water bill price

17. Calculate hidden costs by using formula

Hidden Costs = Employee’s salary + store rental costs + total bill price

18. Calculate net profit by using formula

Net profit = Gross Profit – hidden costs

19. Display the net profits.

20. else

21. Enter customer name

22. Enter date of booking

23.Enter booked date

24.Enter booked day

25.Enter booked time

26.Enter number of food package

27. if food package equal to 1

28. Display “Family Package”

29. Enter number of sets

30. Enter normal price

31. Calculate price after discount by using formula

Discount1 = normal price 1 – (0.15 x normal price 1)

32. Display price after discount

33.Calculate total price by using formula

Paid 1 = discount 1 x number of sets

34. Display total price

35. Enter type of service (1 for delivery or 2 for dine-in)

36. if del1 equal to 1

37. Display “We will deliver customer’s order 15 minutes early”.

38. else

39. Display “A table that has 8 seats will be provided”.

40.else if food package equal to 2

41. Display “Happy Meals Package”

42. Enter number of sets

43. Enter normal price

44. Calculate price after discount by using formula

Discount2 = normal price 2– (0.10 x normal price 2)

45. Display price after discount

46. Calculate total price by using formula

Paid 2 = discount2 x number of sets

47. Display total price

48. Enter type of service (1 for delivery or 2 for dine-in)

49. if del1 equal to 1

50. Display “We will deliver customer’s order 15 minutes early”.

51. else

52. Display “A table that has 8 seats will be provided”.

53. else if food package equal to 3

54. Display “Couple Package”

55. Enter number of sets

56. Enter normal price

57. Calculate price after discount by using formula

Discount3 = normal price 3– (0.05 x normal price 3)

58. Display price after discount

59. Calculate total price by using formula

Paid 3 = discount3 x number of sets

60. Display total price

61. Enter type of service (1 for delivery or 2 for dine-in)

62. if del1 equal to 1

63. Display “We will deliver customer’s order 15 minutes early”.

else

64. Display “A table that has 8 seats will be provided”.

65. else if food package equal to 3

67. Display “Single Package”

68. Enter number of sets

69. Enter normal price

70. Calculate total price by using formula

Paid4= normal price x number of sets

71. Display total price

72. Enter type of service (1 for delivery or 2 for dine-in)

73. if del1 equal to 1

74. Display “We will deliver customer’s order 15 minutes early”.

75. else

76. Display “A table that has 8 seats will be provided”.

77. else

78. Display “Package is not available”

79. Finish

1. Pseudocode

Start

Enter the system (1 for daily profit or 2 for customer order)

if system equal to 1

Enter the username

Enter the day and date

Enter the number of types of fast food and beverages available

Enter the types of food prepared that day

Enter the total price of the ingredients needed(capital)

Enter the total sales price earn on that day

Calculate the gross profit by using formula

Gross profit = Sales price – capital

Display gross profit

Enter total employee’s salary

Enter store rental costs

Enter electric bill price

Enter water bill price

Calculate total bill price by using formula

Total bill price = Electric bill price + water bill price

Calculate hidden costs by using formula

Hidden Costs = Employee’s salary + store rental costs + total bill price

Calculate net profit by using formula

Net profit = Gross Profit – hidden costs

Display the net profits.

else

Enter customer name

Enter date of booking

Enter booked date

Enter booked day

Enter booked time

Enter number of food package

if food package equal to 1

Display “Family Package”

Enter number of sets

Enter normal price

Calculate price after discount by using formula

Discount1 = normal price 1 – (0.15 x normal price 1)

Display price after discount

Calculate total price by using formula

Paid 1 = discount 1 x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 8 seats will be provided”.

else if food package equal to 2

Display “Happy Meals Package”

Enter number of sets

Enter normal price

Calculate price after discount by using formula

Discount2 = normal price 2– (0.10 x normal price 2)

Display price after discount

Calculate total price by using formula

Paid 2 = discount2 x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 4 seats will be provided”.

else if food package equal to 3

Display “Couple Package”

Enter number of sets

Enter normal price

Calculate price after discount by using formula

Discount3 = normal price 3– (0.05 x normal price 3)

Display price after discount

Calculate total price by using formula

Paid 3 = discount3 x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 2 seats will be provided”.

else if food package equal to 4

Display “Single Package”

Enter number of sets

Enter normal price

Calculate total price by using formula

Paid4= normal price x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 2 seats will be provided”.

else

Display “Package is not available”

Stop

1. Flow Chart

Start

Enter the system you want to use

False

Enter the customer’s name

Enter the date of booking

Enter booked date

Enter booked day

Enter booked time

Enter number of food package

System = 1

True

Enter the username

Enter the day and date

Enter the number of types of fast food and beverages available

Enter the types of food prepared that day

Enter the total price of the ingredients needed(capital)

Enter the total sales price earn on that day

False

Food Package =1

True

Display Family Package

Gross profit

= Sales price – capital

Enter number of set

Enter normal price

Display Gross Profit

Price after discount

Discount1 = normal price 1 – (0.15 x normal price 1)

Enter total employee’s salary

Enter store rental costs

Enter electric bill price

Enter water bill price

Display price after discount

Total bill price = Electric bill price + water bill price

Hidden Costs = Employee’s salary + store rental costs + total bill price

Net profit = Gross Profit – hidden costs

Total price

Paid 1 = discount 1 x number of sets

Enter type of service

Enter type of service

Enter type of service

Display total price

Display the net profit

False

Display “A table that has 8 seats will be provided”.

True

Enter type of service

Service type =1

Display “We will deliver customer’s order 15 minutes early”.

Enter type of service

Enter type of service

Enter type of service

False

False

True

True

Food Package =3

Food Package =2

Display Couple Package

Display Happy Meals Package

Enter number of sets

Enter normal price

Enter number of sets

Enter normal price

Price after discount

Discount3 = normal price 3 – (0.05 x normal price 3)

Price after discount

Discount2 = normal price 2 – (0.10 x normal price 2)

Display price after discount

Display price after discount

Total price

Paid 3 = discount 3 x number of sets

Total price

Paid 2 = discount 2 x number of sets

Display total price

Display total price

Enter type of service

Enter type of service

False

False

True

Display “A table that has 8 seats will be provided”.

Service type =1

Display “A table that has 8 seats will be provided”.

Service type =1

True

Display “We will deliver customer’s order 15 minutes early”.

Display “We will deliver customer’s order 15 minutes early”.

False

Food Package =4

True

Display Single Package

Enter number of sets

Enter normal price

Total price

Paid 4 = normal price 4 x number of sets

Display total price

Enter type of service

False

Display “Package is not available”

Display “A table that has 8 seats will be provided”.

Service type =1

True

Display “We will deliver customer’s order 15 minutes early”.

Stop

1. Coding

**package** assignment2;

**import** java.util.Scanner;

**public** **class** FastFoodRestaurantOwner {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Scanner sc = **new** Scanner(System.***in***);

**int** system;

String username;

String day,date;

**int** foodType, beverageType;

String foodPrepared;

**double** capital,salePrice,grossProfit,salary,bill1,bill2,totalBillPrice,rentalCosts,hiddenCosts,netProfits;

//the name of the customer who made the order,date of booking,booked date, booked day and booked time.

String cus\_name, date\_of\_booking, bookedDate, bookedDay, bookedTime;

**int** cus; //reservations for how many people.

**int** foodPackage,del1,del2,del3,set1,set2,set3,set4; //food packages represented by numbers

**double** normPrice1,normPrice2,normPrice3,normPrice4,disc1, disc2, disc3,paid1,paid2,paid3,paid4;

System.***out***.println("==========================================================================================================");

System.***out***.println(" WELCOME TO LAZAT SEGERA RESTAURANT! ");

System.***out***.println("==========================================================================================================");

System.***out***.println("\nYou have to choose to check daily profits(1) or customers booking(2).");

System.***out***.print("Enter the system that you want to use : ");

system = sc.nextInt();

**if**(system==1)

{

System.***out***.println("\nDo you want to know your profit amount today?");

System.***out***.println("You need to enter all the details below.");

System.***out***.println();

//user need to enter their name, day and date

System.***out***.print("Username : ");

username = sc.next();

System.***out***.print("Day : ");

day = sc.next();

System.***out***.print("Date: ");

date = sc.next();

//user need to enter how much the available fast food and beverage for that day

System.***out***.print("Number of available fast food : ");

foodType = sc.nextInt();

System.***out***.print("Number of available beverage : ");

beverageType = sc.nextInt();

//user list the fast foods and beverages

System.***out***.print("Available fast food and beverage: ");

foodPrepared = sc.next();

//the user enters the total price of the ingredients purchased for cooking and making the drinks. This is also called as capital.

System.***out***.print("Enter total price for ingredient needed(capital) : RM");

capital=sc.nextDouble();

//the user enters the total sales price earned on that day.

System.***out***.print("Enter total selling price : RM");

salePrice=sc.nextDouble();

//calculate the gross profit

grossProfit = salePrice - capital;

System.***out***.printf("Your gross profit for today is RM%.2f" , grossProfit);

//calculate the hidden costs

System.***out***.print("\nEnter total employee's salary : RM");

salary=sc.nextDouble();

System.***out***.print("Enter store rental costs : RM");

rentalCosts=sc.nextDouble();

System.***out***.print("Enter electric bill price : RM");

bill1=sc.nextDouble();

System.***out***.print("Enter water bill price : RM");

bill2=sc.nextDouble();

totalBillPrice = bill1 + bill2;

System.***out***.printf("Total bill price : RM%.2f " , totalBillPrice);

hiddenCosts = salary + rentalCosts + totalBillPrice;

System.***out***.printf("\nYour hidden costs is RM%.2f" , hiddenCosts);

//calculate the net profit

netProfits = grossProfit - hiddenCosts;

System.***out***.printf("\nYour net profit for today is RM%.2f " , netProfits);

System.***out***.println();

System.***out***.println("Summary<3");

System.***out***.println("\nUsername : " + username);

System.***out***.println("Day : " + day);

System.***out***.println("Date: " + date);

System.***out***.println("Number of available fast food : " + foodType);

System.***out***.println("Number of available beverage : " + beverageType);

System.***out***.println("Available fast food and beverage: " + foodPrepared );

System.***out***.println("Total price for ingredient needed(capital) : RM " + capital);

System.***out***.println("Total sale price : RM " + salePrice);

System.***out***.printf("Gross profit for today is RM%.2f" , grossProfit);

System.***out***.printf("\nNet profit for today is RM%.2f " , netProfits);

}

**else**

{

System.***out***.println("\nDo you have booking from customers?");

System.***out***.println("You need to enter all the customer's details and customer orders below.");

System.***out***.print("\nEnter customer's name : ");

cus\_name = sc.next();

System.***out***.print("Enter date of booking : ");

date\_of\_booking = sc.next();

System.***out***.print("Enter booked date : ");

bookedDate = sc.next();

System.***out***.print("Enter booked day : ");

bookedDay = sc.next();

System.***out***.print("Enter booked time : ");

bookedTime = sc.next();

System.***out***.print("Enter number of food package : ");

foodPackage = sc.nextInt();

**if** (foodPackage==1) {

System.***out***.println("\nFAMILY PACKAGE<3 (meals for 8 people)");

System.***out***.println("15% OFF FOR FAMILY PACKAGE!!");

System.***out***.print("Enter number of set : ");

set1 = sc.nextInt();

System.***out***.print("Normal price : RM");

normPrice1 = sc.nextDouble();

disc1 = normPrice1 - (0.15 \* normPrice1);

System.***out***.printf("New price for FAMILY PACKAGE : RM%.2f " , disc1);

paid1 = disc1 \* set1;

System.***out***.printf("\nTotal price : RM%.2f", paid1);

}

**else** **if** (foodPackage==2) {

System.***out***.println("\nHAPPY MEALS PACKAGE<3 (meals for 4 people)");

System.***out***.println("10% OFF FOR HAPPY MEALS PACKAGE!!");

System.***out***.print("Enter number of set : ");

set2 = sc.nextInt();

System.***out***.print("Normal Price : RM");

normPrice2 = sc.nextDouble();

disc2 = normPrice2 - (0.10 \* normPrice2);

System.***out***.printf("New price for HAPPY MEALS PACKAGE : RM%.2f " , disc2);

paid2 = disc2 \* set2;

System.***out***.printf("\nTotal price : RM%.2f", paid2);

}

**else** **if** (foodPackage==3) {

System.***out***.println("\nCOUPLE PACKAGE<3 (meals for 2 people)");

System.***out***.println("5% OFF FOR COUPLE PACKAGE!!");

System.***out***.print("Enter number of set : ");

set3 = sc.nextInt();

System.***out***.print("Normal Price : RM");

normPrice3 = sc.nextDouble();

disc3 =normPrice3 - (0.05 \* normPrice3);

System.***out***.printf("New price for COUPLE PACKAGE : RM%.2f " , disc3);

paid3 = disc3 \* set3;

System.***out***.printf("\nTotal price : RM%.2f", paid3);

}

**else** **if** (foodPackage==4) {

System.***out***.println("\nSINGLE MEAL<3 (meals for 1 person only)");

System.***out***.print("Enter number of set : ");

set4 = sc.nextInt();

System.***out***.print("Normal Price : RM");

normPrice4 = sc.nextDouble();

System.***out***.println("Sorry, no discount for SINGLE MEAL.");

paid4 = normPrice4 \* set4;

System.***out***.printf("\nTotal price : RM%.2f", paid4);

}

**else** {

System.***out***.println("\nPackage is not available.Please choose another package.");

}

**switch**(foodPackage)

{

**case** 1 :

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 8 seats will be provided.");

}

**break**;

**case** 2 :

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 4 seats will be provided.");

}

**break**;

**case** 3:

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 2 seats will be provided.");

}

**break**;

**case** 4:

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 2 seats will be provided.");

}

**break**;

**default**:

System.***out***.println("Invalid package.");

}

}

}

}

1. Output

==========================================================================================================

WELCOME TO LAZAT SEGERA RESTAURANT!

==========================================================================================================

You have to choose to check daily profits(1) or customers booking(2).

Enter the system that you want to use : 2

Do you have booking from customers?

You need to enter all the customer's details and customer orders below.

Enter customer's name : NURUL

Enter date of booking : 12/12/21

Enter booked date : 12/2/22

Enter booked day : SABTU

Enter booked time : 8.30P.M

Enter number of food package : 2

HAPPY MEALS PACKAGE<3 (meals for 4 people)

10% OFF FOR HAPPY MEALS PACKAGE!!

Enter number of set : 3

Normal Price : RM95.60

New price for HAPPY MEALS PACKAGE : RM86.04

Total price : RM258.12

Delivery(1) or Dine-in(2) : 1

We will deliver customer's order 15 minutes early.

ASSIGNMENT 3: FAST FOOD (ALA CARTE)

1. Identify the problem

Each customer has different tastes and has different demands. Of course, there are customers who want to get their fast food in a combo or buy ala carte. There are customers who need many foods for the purpose of celebrating something meaningful to them, and there are also those who want to get food to eat individually, so they only need a small amount of food. Usually, customers who want to order food in small quantities will choose a la carte. When a meal is served ala carte in a restaurant, it means that each customer orders their own meal. It isn't served as part of a meal or as a side dish. A customer gets fried chicken and just fried chicken if they purchase fried chicken ala carte. It could come with a garnish or a sauce. With their ala carte fried chicken, some customers may choose to choose a side dish. They will, however, request an ala carte side dish.

This is because an ala carte menu item is distinguished by the fact that it is served differently, separately from the way the food is offered on the restaurant's full menu. As a result, it's the opposite of a regular menu. It's helpful to look at ala carte menus differently than other types of menus while determining their suitability. Also, because ala carte menu is a separate dish from the main menu meal, the prices will be unique and distinct from those on the main menu. Most of the time, the price will be reduced because the amount of material used will be reduced as well. Prices may be raised beyond the original menu at other times for two reasons. One is that it may require the use of unique ingredients to be prepared. The second issue is that ala carte menus may need knowledge and preparation time. As a result, clients can customise their meal according to their taste rather than being restricted to large-scale food packages.

Most fast-food restaurants provide various types of fast food along with its side dishes. As a result, restaurant owners and employees find it difficult to remember the price for each type of food ordered by customers separately.

1. Understand the problem

Many customers have necessities. As a result, fast food restaurant owners should have a proper system in place to receive customer orders. Staff and restaurant owners may struggle to do calculations if orders are only recorded in a book, and the ordering process will take a longer process. A good system will not only make staff' and fast-food restaurant owners' jobs easier, but it will also offer customers a positive impression of excellent service. Since this a la carte purchase is a separate order from the regular menu found in fast food restaurants, it requires focus when taking customer orders to improve the quality of service. Restaurant owners also need a system where they do not have to remember the price list for the menu items available in their restaurant.

1. Identify alternative ways to solve the problem

* Orders are recorded in a special book and managed by one person only.

|  |  |
| --- | --- |
| Pros | Cons |
| Customer orders are more organised and tidier. | This leads to insufficient space. |

* Provide a system for ala carte.

|  |  |
| --- | --- |
| Pros | Cons |
| Easier to use at any time and does not require a large space | Only suitable for use in computers or laptops only. |

1. Select the best way to solve the problem from the list of alternative solution.

* Provide a system for customer bookings.
* This method was chosen because it is easier to use without the need for a manual. It is very helpful for fast food restaurant owners, regardless of age, or gender, or race. This method is also able to show accurate calculations for orders placed by customers.

1. List instructions (steps) that enable you to solve the problem using the selected solution.
   * 1. Enter customer’s name

|  |  |
| --- | --- |
| Customer’s name | NURUL |

* + 1. Enter date of booking

|  |  |
| --- | --- |
| Date of booking | 12/1/22 |

* + 1. Enter booked day

|  |  |
| --- | --- |
| Booked Day | Wednesday |

* + 1. Enter booked time

|  |  |
| --- | --- |
| Booked time | 8.30p.m. |

v) Enter the customer’s choice

|  |  |
| --- | --- |
| Customer choice | 3 |

vi) Enter the quantity of food

|  |  |
| --- | --- |
| Quantity | 2 |

vii) Calculate the total price

|  |  |
| --- | --- |
| Price | Calculation |
| Total Price | Total Price = Price x quantity |

viii) Display total price.

ix) Choose for delivery or dine in by enter the number of 1 or 2

|  |  |
| --- | --- |
| Delivery | 1 |
| Dine in | 2 |

x) If delivery will display (“We will deliver customer’s order 15 minutes early”).

If dine-in will display (“Customers want to sit and eat in the restaurant.”).

xi) Enter the special request from customers

xii) Stop

1. Evaluate the solution

This method can help restaurant owners who receive orders from customers. The calculation process becomes faster, so customers don’t have to wait long to find out the price they have to pay. In addition, customers can choose food separately according to their tastes. This not only makes it easier for restaurant owners, but also makes it easier for customers to get food other than those in the package provided. Customers can choose the food that suits them to avoid any problems that will harm customers as well as fast food restaurant owners.

1. Algorithm

1. Start

2. Enter the system that owner restaurant wants to use.

3. if system equal to 1

4. Enter the username

5. Enter the day and date

6. Enter the number of types of fast food and beverages available

7. Enter the types of food prepared that day

8. Enter the total price of the ingredients needed(capital)

9. Enter the total sales price earn on that day

10.Calculate the gross profit by using formula

Gross profit = Sales price – capital

11. Display gross profit

12. Enter total employee’s salary

13. Enter store rental costs

14. Enter electric bill price

15. Enter water bill price

16. Calculate total bill price by using formula

Total bill price = Electric bill price + water bill price

17. Calculate hidden costs by using formula

Hidden Costs = Employee’s salary + store rental costs + total bill price

18. Calculate net profit by using formula

Net profit = Gross Profit – hidden costs

19. Display the net profits.

20. else if system equal to 2

21. Enter customer name

22. Enter date of booking

23.Enter booked date

24.Enter booked day

25.Enter booked time

26.Enter number of food package

27. if food package equal to 1

28. Display “Family Package”

29. Enter number of sets

30. Enter normal price

31. Calculate price after discount by using formula

Discount1 = normal price 1 – (0.15 x normal price 1)

32. Display price after discount

33.Calculate total price by using formula

Paid 1 = discount 1 x number of sets

34. Display total price

35. Enter type of service (1 for delivery or 2 for dine-in)

36. if del1 equal to 1

37. Display “We will deliver customer’s order 15 minutes early”.

38. else

39. Display “A table that has 8 seats will be provided”.

40.else if food package equal to 2

41. Display “Happy Meals Package”

42. Enter number of sets

43. Enter normal price

44. Calculate price after discount by using formula

Discount2 = normal price 2– (0.10 x normal price 2)

45. Display price after discount

46. Calculate total price by using formula

Paid 2 = discount2 x number of sets

47. Display total price

48. Enter type of service (1 for delivery or 2 for dine-in)

49. if del1 equal to 1

50. Display “We will deliver customer’s order 15 minutes early”.

51. else

52. Display “A table that has 8 seats will be provided”.

53. else if food package equal to 3

54. Display “Couple Package”

55. Enter number of sets

56. Enter normal price

57. Calculate price after discount by using formula

Discount3 = normal price 3– (0.05 x normal price 3)

58. Display price after discount

59. Calculate total price by using formula

Paid 3 = discount3 x number of sets

60. Display total price

61. Enter type of service (1 for delivery or 2 for dine-in)

62. if del1 equal to 1

63. Display “We will deliver customer’s order 15 minutes early”.

else

64. Display “A table that has 8 seats will be provided”.

65. else if food package equal to 3

67. Display “Single Package”

68. Enter number of sets

69. Enter normal price

70. Calculate total price by using formula

Paid4= normal price x number of sets

71. Display total price

72. Enter type of service (1 for delivery or 2 for dine-in)

73. if del1 equal to 1

74. Display “We will deliver customer’s order 15 minutes early”.

75. else

76. Display “A table that has 8 seats will be provided”.

77. else

78. Display “Package is not available”

79. else if system equal to 3

80. Enter customer name

81. Enter date of booking

82. Enter booked date

83. Enter booked day

84. Enter booked time

85. Enter number of selected foods

86. Enter quantity of food

87. Calculate Total price by using formula

Total price = price x quantity

88. Display total price

89. Enter type of service (1 for delivery or 2 for dine-in)

90. if del1 equal to 1

91. Display “We will deliver customer’s order 15 minutes early”.

92. else

93. Display “Customers want to sit and eat in the restaurant.”

94. Enter special request from customer

95. else

96. Display “The end. Thank you for your service today. See you tomorrow <3”

97. Finish

1. Pseudocode

Start

Enter the system (1 for daily profit or 2 for customer order)

if system equal to 1

Enter the username

Enter the day and date

Enter the number of types of fast food and beverages available

Enter the types of food prepared that day

Enter the total price of the ingredients needed(capital)

Enter the total sales price earn on that day

Calculate the gross profit by using formula

Gross profit = Sales price – capital

Display gross profit

Enter total employee’s salary

Enter store rental costs

Enter electric bill price

Enter water bill price

Calculate total bill price by using formula

Total bill price = Electric bill price + water bill price

Calculate hidden costs by using formula

Hidden Costs = Employee’s salary + store rental costs + total bill price

Calculate net profit by using formula

Net profit = Gross Profit – hidden costs

Display the net profits.

Else if system equal to 2

Enter customer name

Enter date of booking

Enter booked date

Enter booked day

Enter booked time

Enter number of food package

if food package equal to 1

Display “Family Package”

Enter number of sets

Enter normal price

Calculate price after discount by using formula

Discount1 = normal price 1 – (0.15 x normal price 1)

Display price after discount

Calculate total price by using formula

Paid 1 = discount 1 x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 8 seats will be provided”.

else if food package equal to 2

Display “Happy Meals Package”

Enter number of sets

Enter normal price

Calculate price after discount by using formula

Discount2 = normal price 2– (0.10 x normal price 2)

Display price after discount

Calculate total price by using formula

Paid 2 = discount2 x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 4 seats will be provided”.

else if food package equal to 3

Display “Couple Package”

Enter number of sets

Enter normal price

Calculate price after discount by using formula

Discount3 = normal price 3– (0.05 x normal price 3)

Display price after discount

Calculate total price by using formula

Paid 3 = discount3 x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 2 seats will be provided”.

else if food package equal to 4

Display “Single Package”

Enter number of sets

Enter normal price

Calculate total price by using formula

Paid4= normal price x number of sets

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “A table that has 2 seats will be provided”.

else

Display “Package is not available”

Else if system equal to 3

Enter customer name

Enter date of booking

Enter booked date

Enter booked day

Enter booked time

Enter number of selected foods

Enter quantity of food

Calculate Total price by using formula

Total price = price x quantity

Display total price

Enter type of service (1 for delivery or 2 for dine-in)

if del1 equal to 1

Display “We will deliver customer’s order 15 minutes early”.

else

Display “Customers want to sit and eat in the restaurant.”

Enter special request from customer

else

Display “The end. Thank you for your service today. See you tomorrow <3”

Stop

1. Flow chart

Enter the system you want to use

Start

False

System = 1

False

System = 2

True

True

Enter the customer’s name

Enter the date of booking

Enter booked date

Enter booked day

Enter booked time

Enter number of food package

Enter the username

Enter the day and date

Enter the number of types of fast food and beverages available

Enter the types of food prepared that day

Enter the total price of the ingredients needed(capital)

Enter the total sales price earn on that day

False

Food Package =1

True

Display Family Package

Gross profit

= Sales price – capital

Enter number of sets

Enter normal price

Display Gross Profit

Price after discount

Discount1 = normal price 1 – (0.15 x normal price 1)

Enter total employee’s salary

Enter store rental costs

Enter electric bill price

Enter water bill price

Display price after discount

Total bill price = Electric bill price + water bill price

Hidden Costs = Employee’s salary + store rental costs + total bill price

Net profit = Gross Profit – hidden costs

Total price

Paid 1 = discount 1 x number of sets

Enter type of service

Enter type of service

Enter type of service

Display total price

Display the net profit

False

Display “A table that has 8 seats will be provided”.

True

Enter type of service

Service type =1

Display “We will deliver customer’s order 15 minutes early”.

Enter type of service

Enter type of service

Enter type of service

False

False

True

True

Food Package =3

Food Package =2

Display Couple Package

Display Happy Meals Package

Enter number of sets

Enter normal price

Enter number of sets

Enter normal price

Price after discount

Discount3 = normal price 3 – (0.05 x normal price 3)

Price after discount

Discount2 = normal price 2 – (0.10 x normal price 2)

Display price after discount

Display price after discount

Total price

Paid 3 = discount 3 x number of sets

Total price

Paid 2 = discount 2 x number of sets

Display total price

Display total price

Enter type of service

Enter type of service

False

False

True

Display “A table that has 8 seats will be provided”.

Service type =1

Display “A table that has 8 seats will be provided”.

Service type =1

True

Display “We will deliver customer’s order 15 minutes early”.

Display “We will deliver customer’s order 15 minutes early”.

Enter customer special request

False

True

Food Package =4

True

Display Single Package

Enter number of sets

Enter normal price

Total price

Paid 4 = normal price 4 x number of sets

Display total price

Enter type of service

False

Service type =1

False

True

Display “Package is not available”

Display “A table that has 8 seats will be provided”.

True

Display “We will deliver customer’s order 15 minutes early”.

Enter customer special request

False

System = 3

True

Enter the customer’s name

Enter the date of booking

Enter booked date

Enter booked day

Enter booked time

Enter number of selected foods

Enter the quantity of food

Display “The end. Thank you for your service today. See you tomorrow <3”

Total price

total= quantity x food price

Display total price

Enter type of service

False

Display” Customers want to sit and eat in the restaurant”

Service type =1

True

Display “We will deliver customer’s order 15 minutes early”.

Enter customer special request

Stop

1. Coding

**package** assignment2;

**import** java.util.Scanner;

**public** **class** FastFoodRestaurantOwner {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

**int** system;

String username;

String day,date;

**int** foodType, beverageType;

String foodPrepared;

**double** capital,salePrice,grossProfit,salary,bill1,bill2,totalBillPrice,rentalCosts,hiddenCosts,netProfits;

//the name of the customer who made the order,date of booking,booked date, booked day and booked time.

String cus\_name, date\_of\_booking, bookedDate, bookedDay, bookedTime;

String specialReq;

**int** cus; //reservations for how many people.

**int** foodPackage,del1,del2,del3,set1,set2,set3,set4; //food packages represented by numbers

**double** normPrice1,normPrice2,normPrice3,normPrice4,disc1, disc2, disc3,paid1,paid2,paid3,paid4;

System.***out***.println("==========================================================================================================");

System.***out***.println(" WELCOME TO LAZAT SEGERA RESTAURANT! ");

System.***out***.println("==========================================================================================================");

**do** {

System.***out***.println("\nYou have to choose to Check Daily Profits(1) , Customers Booking(2) , Ala Carte(3) or End System(4).");

System.***out***.print("Enter the system that you want to use : ");

system = sc.nextInt();

**if**(system==1)

{

System.***out***.println("\n------------ DAILY PROFIT CALCULATION SYSTEM------------");

System.***out***.println("\nDo you want to know your profit amount today?");

System.***out***.println("You need to enter all the details below.");

System.***out***.println();

//user need to enter their name, day and date

System.***out***.print("Username : ");

username = sc.next();

System.***out***.print("Day : ");

day = sc.next();

System.***out***.print("Date: ");

date = sc.next();

//user need to enter how much the available fast food and beverage for that day

System.***out***.print("Number of available fast food : ");

foodType = sc.nextInt();

System.***out***.print("Number of available beverage : ");

beverageType = sc.nextInt();

//user list the fast foods and beverages

System.***out***.print("Available fast food and beverage: ");

foodPrepared = sc.next();

//the user enters the total price of the ingredients purchased for cooking and making the drinks. This is also called as capital.

System.***out***.print("Enter total price for ingredient needed(capital) : RM");

capital=sc.nextDouble();

//the user enters the total sales price earned on that day.

System.***out***.print("Enter total selling price : RM");

salePrice=sc.nextDouble();

//calculate the gross profit

grossProfit = salePrice - capital;

System.***out***.printf("Your gross profit for today is RM%.2f" , grossProfit);

//calculate the hidden costs

System.***out***.print("\nEnter total employee's salary : RM");

salary=sc.nextDouble();

System.***out***.print("Enter store rental costs : RM");

rentalCosts=sc.nextDouble();

System.***out***.print("Enter electric bill price : RM");

bill1=sc.nextDouble();

System.***out***.print("Enter water bill price : RM");

bill2=sc.nextDouble();

totalBillPrice = bill1 + bill2;

System.***out***.printf("Total bill price : RM%.2f " , totalBillPrice);

hiddenCosts = salary + rentalCosts + totalBillPrice;

System.***out***.printf("\nYour hidden costs is RM%.2f" , hiddenCosts);

//calculate the net profit

netProfits = grossProfit - hiddenCosts;

System.***out***.printf("\nYour net profit for today is RM%.2f " , netProfits);

System.***out***.println();

System.***out***.println("Summary<3");

System.***out***.println("\nUsername : " + username);

System.***out***.println("Day : " + day);

System.***out***.println("Date: " + date);

System.***out***.println("Number of available fast food : " + foodType);

System.***out***.println("Number of available beverage : " + beverageType);

System.***out***.println("Available fast food and beverage: " + foodPrepared );

System.***out***.println("Total price for ingredient needed(capital) : RM " + capital);

System.***out***.println("Total sale price : RM " + salePrice);

System.***out***.printf("Gross profit for today is RM%.2f" , grossProfit);

System.***out***.printf("\nNet profit for today is RM%.2f " , netProfits);

System.***out***.println();

}

**else** **if**(system==2)

{

//this system is use for get order from customer if customer want to book the package meal

System.***out***.println("\n------------ CUSTOMER'S ORDER SYSTEM------------");

System.***out***.println("\nDo you have booking from customers?");

System.***out***.println("You need to enter all the customer's details and customer orders below.");

//get customer's detail

System.***out***.print("\nEnter customer's name : ");

cus\_name = sc.next();

System.***out***.print("Enter date of booking : ");

date\_of\_booking = sc.next();

System.***out***.print("Enter booked date : ");

bookedDate = sc.next();

System.***out***.print("Enter booked day : ");

bookedDay = sc.next();

System.***out***.print("Enter booked time : ");

bookedTime = sc.next();

//choose food package base on customer's order

System.***out***.print("Enter number of food package : ");

foodPackage = sc.nextInt();

**if** (foodPackage==1) {

System.***out***.println("\nFAMILY PACKAGE<3 (meals for 8 people)");

System.***out***.println("15% OFF FOR FAMILY PACKAGE!!");

System.***out***.print("Enter number of set : ");

set1 = sc.nextInt();

System.***out***.print("Normal price : RM");

normPrice1 = sc.nextDouble();

disc1 = normPrice1 - (0.15 \* normPrice1);

System.***out***.printf("New price for FAMILY PACKAGE : RM%.2f " , disc1);

paid1 = disc1 \* set1;

System.***out***.printf("\nTotal price : RM%.2f", paid1);

}

**else** **if** (foodPackage==2) {

System.***out***.println("\nHAPPY MEALS PACKAGE<3 (meals for 4 people)");

System.***out***.println("10% OFF FOR HAPPY MEALS PACKAGE!!");

System.***out***.print("Enter number of set : ");

set2 = sc.nextInt();

System.***out***.print("Normal Price : RM");

normPrice2 = sc.nextDouble();

disc2 = normPrice2 - (0.10 \* normPrice2);

System.***out***.printf("New price for HAPPY MEALS PACKAGE : RM%.2f " , disc2);

paid2 = disc2 \* set2;

System.***out***.printf("\nTotal price : RM%.2f", paid2);

}

**else** **if** (foodPackage==3) {

System.***out***.println("\nCOUPLE PACKAGE<3 (meals for 2 people)");

System.***out***.println("5% OFF FOR COUPLE PACKAGE!!");

System.***out***.print("Enter number of set : ");

set3 = sc.nextInt();

System.***out***.print("Normal Price : RM");

normPrice3 = sc.nextDouble();

disc3 =normPrice3 - (0.05 \* normPrice3);

System.***out***.printf("New price for COUPLE PACKAGE : RM%.2f " , disc3);

paid3 = disc3 \* set3;

System.***out***.printf("\nTotal price : RM%.2f", paid3);

}

**else** **if** (foodPackage==4) {

System.***out***.println("\nSINGLE MEAL<3 (meals for 1 person only)");

System.***out***.print("Enter number of set : ");

set4 = sc.nextInt();

System.***out***.print("Normal Price : RM");

normPrice4 = sc.nextDouble();

System.***out***.println("Sorry, no discount for SINGLE MEAL.");

paid4 = normPrice4 \* set4;

System.***out***.printf("\nTotal price : RM%.2f", paid4);

}

**else** {

System.***out***.println("\nPackage is not available.Please choose another package.");

}

**switch**(foodPackage)

{

**case** 1 :

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 8 seats will be provided.");

}

**break**;

**case** 2 :

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 4 seats will be provided.");

}

**break**;

**case** 3:

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 2 seats will be provided.");

}

**break**;

**case** 4:

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

del1 = sc.nextInt();

**if** (del1==1) {

System.***out***.println("\nWe will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("\nA table that has 2 seats will be provided.");

}

**break**;

**default**:

System.***out***.println("Invalid package.");

}

System.***out***.println("Customer's special request :");

specialReq = sc.next();

}

**else** **if**(system==3) {

//this is the Ala carte system which customers can customize their order

System.***out***.println("\n------------ ALA CARTE SYSTEM------------");

System.***out***.print("\nEnter customer's name : ");

cus\_name = sc.next();

System.***out***.print("Enter date of booking : ");

date\_of\_booking = sc.next();

System.***out***.print("Enter booked date : ");

bookedDate = sc.next();

System.***out***.print("Enter booked day : ");

bookedDay = sc.next();

System.***out***.print("Enter booked time : ");

bookedTime = sc.next();

String [] food = {"CHICKEN(1PC)", "CLASSIC BURGER","CHEZZY BURGER","CHEZZY WEDGES",

"LOADED POTATO BOWL","WHIPPED POTATO","NUGGETS(9PC)","COLESLAW",

"NASI LEMAK","POPCORN CHICKEN","CHOCOLATE BANANA CAKE","RED VELVET CAKE","ICED MILO", "PEPSI BLACK",

"ICED LEMON TEA", "SJORA MANGO PEACH","TROPICANA TWISTER", "NESTLE LEMONADE" };

**double** [] price = {5.99, 11.99, 12.70, 6.99, 7.49, 7.99, 13.99, 7.99, 3.99,10.99,7.99,8.99, 5.99, 4.70, 5.99, 5.99, 5.99, 5.99};

//return 2 data (food and price)

**int** choice[] =*showMenu* (food,price);

*showTotal*(choice, food, price);

}

**else** {

System.***out***.println("\n-----The end. Thank you for your service today. See you tomorrow <3-----");

}

}**while**(system!=4);}

**public** **static** **int** [] showMenu(String[] food, **double**[] price) {

**int**[] choice = **new** **int**[20];

System.***out***.println("\nMENU");

**for** (**int** a = 0; a < food.length; a++)

System.***out***.println(Integer.*toString*(a+1) + ". " + food[a] + " : RM" + price[a]);

System.***out***.println();

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Customer's choice : ");

choice[0] = sc.nextInt();

System.***out***.print("Quantity : ");

choice[1] = sc.nextInt();

**return** choice; //return array choice

}

**public** **static** **void** showTotal(**int**[] choice, String[] food, **double**[]price) {

**int** noFood = choice[0]-1; //array index start with 0

**int** qtt = choice[1]; //array choice[1] represent quantity

**double** total = qtt \* price[noFood];

System.***out***.println("FOOD ORDERED : " + food[noFood]);

System.***out***.printf("TOTAL PRICE : RM%.2f " , total);

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println();

System.***out***.print("\nDelivery(1) or Dine-in(2) : ");

**int** del5 = sc.nextInt();

**if** (del5==1) {

System.***out***.println("We will deliver customer's order 15 minutes early.");

}

**else** {

System.***out***.println("Customers want to sit and eat in the restaurant.");

}

System.***out***.println("Customer's special request :");

String specialReq1 = sc.next();

}

}

1. Output

==========================================================================================================

WELCOME TO LAZAT SEGERA RESTAURANT!

==========================================================================================================

You have to choose to Check Daily Profits(1) , Customers Booking(2) , Ala Carte(3) or End System(4).

Enter the system that you want to use : 1

------------ DAILY PROFIT CALCULATION SYSTEM------------

Do you want to know your profit amount today?

You need to enter all the details below.

Username : AZU

Day : SATURDAY

Date: 29/1/22

Number of available fast food : 3

Number of available beverage : 2

Available fast food and beverage: FRIEDCHICKEN,BURGER,WEDGES,MILOICED,JUICE

Enter total price for ingredient needed(capital) : RM670.45

Enter total selling price : RM1258.65

Your gross profit for today is RM588.20

Enter total employee's salary : RM300

Enter store rental costs : RM10.95

Enter electric bill price : RM5.30

Enter water bill price : RM4.99

Total bill price : RM10.29

Your hidden costs is RM321.24

Your net profit for today is RM266.96

Summary<3

Username : AZU

Day : SATURDAY

Date: 29/1/22

Number of available fast food : 3

Number of available beverage : 2

Available fast food and beverage: FRIEDCHICKEN,BURGER,WEDGES,MILOICED,JUICE

Total price for ingredient needed(capital) : RM 670.45

Total sale price : RM 1258.65

Gross profit for today is RM588.20

Net profit for today is RM266.96

You have to choose to Check Daily Profits(1) , Customers Booking(2) , Ala Carte(3) or End System(4).

Enter the system that you want to use : 2

------------ CUSTOMER'S ORDER SYSTEM------------

Do you have booking from customers?

You need to enter all the customer's details and customer orders below.

Enter customer's name : NURUL

Enter date of booking : 1/1/22

Enter booked date : 19/1/22

Enter booked day : WEDNESDAY

Enter booked time : 8.30P.M.

Enter number of food package : 3

COUPLE PACKAGE<3 (meals for 2 people)

5% OFF FOR COUPLE PACKAGE!!

Enter number of set : 2

Normal Price : RM55.50

New price for COUPLE PACKAGE : RM52.73

Total price : RM105.45

Delivery(1) or Dine-in(2) : 2

A table that has 2 seats will be provided.

Customer's special request :

BIRTHDAY\_CELEBRATION\_DECO

You have to choose to Check Daily Profits(1) , Customers Booking(2) , Ala Carte(3) or End System(4).

Enter the system that you want to use : 3

------------ ALA CARTE SYSTEM------------

Enter customer's name : AZURIN

Enter date of booking : 12/2/22

Enter booked date : 12/2/22

Enter booked day : SATURDAY

Enter booked time : 12.30.P.M.

MENU

1. CHICKEN(1PC) : RM5.99

2. CLASSIC BURGER : RM11.99

3. CHEZZY BURGER : RM12.7

4. CHEZZY WEDGES : RM6.99

5. LOADED POTATO BOWL : RM7.49

6. WHIPPED POTATO : RM7.99

7. NUGGETS(9PC) : RM13.99

8. COLESLAW : RM7.99

9. NASI LEMAK : RM3.99

10. POPCORN CHICKEN : RM10.99

11. CHOCOLATE BANANA CAKE : RM7.99

12. RED VELVET CAKE : RM8.99

13. ICED MILO : RM5.99

14. PEPSI BLACK : RM4.7

15. ICED LEMON TEA : RM5.99

16. SJORA MANGO PEACH : RM5.99

17. TROPICANA TWISTER : RM5.99

18. NESTLE LEMONADE : RM5.99

Customer's choice : 3

Quantity : 2

FOOD ORDERED : CHEZZY BURGER

TOTAL PRICE : RM25.40

Delivery(1) or Dine-in(2) : 1

We will deliver customer's order 15 minutes early.

Customer's special request :

EXTRA\_SAUCE

You have to choose to Check Daily Profits(1) , Customers Booking(2) , Ala Carte(3) or End System(4).

Enter the system that you want to use : 4

-----The end. Thank you for your service today. See you tomorrow <3-----