A211 SESSION 2021/2022

STIA1113 PROGRAMMING I GROUP C

GROUP PROJECT

TOPIC: FOOD

LECTURE'S NAME:

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Prepared by:

MATRIC NUMBER	**NAME**	**SUBTOPIC**
287102	HO JUN HAN	BREAD
287148	DANIEL FIKREY BIN HAIRULRIZAL	CAKE
287156	HO WAI KIAT	RICE
287194	KOR JUN XIANG	DESSERTS
287438	NURLAILATUL AQILAH BINTI NASIR	FRUITS

TABLE OF CONTENTS

1.0 Background of the project

Food is a substance made up mostly of protein, carbohydrates, fat, and other nutrients that are used in the body of an organism to fuel development and important operations. Digestion aids in the absorption and utilization of food by the body, which is essential for nutrition. Food can be classified into many categories, which are bread, cake, rice, desserts and fruits.

1.1 Background for bread

- Definition of bread

The most common product that is sold in the bakery which is bread. Bread is a staple food prepared from a dough of flour (usually wheat) and water, usually by baking. Throughout recorded history and around the world, it has been an important part of many cultures' diet. It is one of the oldest human-made foods, having been of significance since the dawn of agriculture, and plays an essential role in both religious rituals and secular culture.

The most common source of leavening was to retain a piece of dough from the previous day to use as a form of sourdough starter. The Chorleywood bread process was developed in 1961; it uses the intense mechanical working of dough to dramatically reduce the fermentation period and the time taken to produce a loaf. The process, whose high-energy mixing allows for the use of grain with a lower protein content, is now widely used around the world in large factories. As a result, bread can be produced very quickly and at low costs to the manufacturer and the consumer.

- Problem

TK Bakery bakers are required to buy ingredients from the market for making breads whenever the ingredients are inadequate. The bakers have the responsibility for preparing and measuring the quantity of ingredients that are needed for respective breads properly. The price of the ingredients is changing periodically because the price of the ingredients is based on the market price. The cost of the ingredients will affect the price of breads that will be sold in the bakery. Thus, a price calculation system is utilized. The system also can be used as a cashier system to make bill payment.

1.2 Background for cake

The history of cake begins from the word of Viking origin, which is ‘kaka’. But for ancient Greeks, the way they call a cake is flat. The ingredients that they use to make a flat is using flour mixed with eggs, milk, nuts and honey. Then during the Roman period, the name of cake become a placenta. The ways to bake a placenta in this period is a bit different which is a placenta was bake on a pastry base or inside a pastry case. In England, cake is essentially with bread but what make it different is the round, flat shape of the cakes and the cooking method. Cake is form of sweet food made from flour, sugar and other ingredients. Cake is very popular food among the people around the world. There are many people who like a cake. Cake also frequently use in many events such as birthday party, weddings, anniversaries and many more. So, many people who open bakery to try make money by selling a cake. There are many types of cake which is pandan cake, red velvet cake, vanilla cake, chocolate cake and many more.

The problem is Sarah bakery had trouble getting the ingredients to make cake every day and they had to buy the ingredients every day. The problem is sometimes the ingredients that they looking for is sufficient but there’s a times when they not getting enough ingredients to make the number of cake that they target on that day and it really disturb their business. Then is she want to buy all at once it will be difficult because she don’t know the right mass of each ingredient.

1.3 Background for rice

- Definition of rice

Rice is the seed of the grass species Oryza sativa (Asian rice) or less commonly Oryza glaberrima (African rice). The name wild rice is usually used for species of the genera Zizania and Porteresia, both wild and domesticated, although the term may also be used for primitive or uncultivated varieties of Oryza.

As a cereal grain, domesticated rice is the most widely consumed staple food for over half of the world's human population,especially in Asia and Africa. It is the agricultural commodity with the third-highest worldwide production, after sugarcane and maize.Since sizable portions of sugarcane and maize crops are used for purposes other than human consumption, rice is the most important food crop with regard to human nutrition and caloric

intake, providing more than one-fifth of the calories consumed worldwide by humans.There are many varieties of rice and culinary preferences tend to vary regionally.

The traditional method for cultivating rice is flooding the fields while, or after, setting the young seedlings. This simple method requires sound irrigation planning but reduces the growth of less robust weed and pest plants that have no submerged growth state, and deters vermin. While flooding is not mandatory for the cultivation of rice, all other methods of irrigation require higher effort in weed and pest control during growth periods and a different approach for fertilizing the soil.

Rice, a monocot, is normally grown as an annual plant, although in tropical areas it can survive as a perennial and can produce a ratoon crop for up to 30 years.Rice cultivation is well-suited to countries and regions with low labor costs and high rainfall, as it is labor-intensive to cultivate and requires ample water. However, rice can be grown practically anywhere, even on a steep hill or mountain area with the use of water-controlling terrace systems. Although its parent species are native to Asia and certain parts of Africa, centuries of trade and exportation have made it commonplace in many cultures worldwide. Production and consumption of rice is estimated to have been responsible for 4% of global greenhouse gas emissions in 2010.

- Problem

H & H Food Corp Sdn Bhd is a rice company. They have to ensure that the yield of the rice can always meet market demand every time. Therefore, the yield of each type of rice needs to be calculated strictly to ensure that it does not inefficient supply. However, market demand is often affected by many factors, and yield of the rice will also change. H & H Food Corp Sdn Bhd has a large arable land, and it would take a long time to calculate the yield by manpower. So, H & H Food Corp Sdn Bhd needs to make calculations based on the area of the farm to planning the sales and the inventory. After this, market demand is often affected by many factors, and yield of the rice will also change. H & H Food Corp Sdn Bhd needs to be well calculated in next harvest amount of the rice to facilitate future farming plans.At last, the quantity of each type of rice is huge, so calculating the inventory needs to be careful and fast. Each type of rice has a different grade, which complicates the calculation. H & H Food Corp Sdn Bhd needs to ensure that the inventory is accurate to ensure normal daily sales.

1.4 Background for desserts

Dessert is a course that concludes a meal. The course consists of sweet foods, such as confections, and possibly a beverage such as dessert wine and liqueur. There is no tradition of a dessert course to conclude a meal in some parts of the world such as much of Central Africa,West Africa and most parts of China. The word dessert can be applied to many types of confections, such as cakes, biscuits, cookies, puddings, custards, macarons, pastries, etc. Fruits is also commonly found in dessert courses because of its naturally occurring sweetness.

The market for dessert has grown over the last few decades, which was greatly increased by the commercialism of baking desserts and the rise of food productions. There is many different types of desserts shop has been established now in Malaysia such as Mykori Dessert Cafe, Dessert-Hunting, Joslyn Cakes, llao llao, Dáo Desserts and others. There all have their unique desserts and design of the shop to attract customers. Katey has open a dessert shop and she faced the problem that her shop can be operated or not which mean the dessert shop can be able to bring profits to her or not.

The problem that Katey faced is that the dessert shop she opened was able to bring profits or loss to her. As we see the problem, when a person opens a shop, he or she will need to know the profit or loss after a month of the shop operated, this is important because it mean that your shop can be operated in long term or short term. If the shop brings profits to you, you can operate it in long time as you have the money to operated it. If the shop incapable to bring profits to you, as the time go, when you spend all the money into the shop and then you may face bankrupt of the shop. So, we need to know how to calculate the net profits of the shop gain as the net income earned by Katey.

1.5 Background for fruits

A fruit is seed-bearing structure in flowering plants that is formed from the ovary after flowering. Fruits are the means by which flowering plants disseminate their seeds. Following the three main modes of fruit development, scientist have classified fruits according to their various groups which are composite fruits, simple fruits, and aggregates.

Sin Seng Huat (SSH) is one of the pioneer crop production companies in Malaysia. Sin Seng Huat manufactures and distributes a wide range of high-quality products ranging from vegetables seeds, agrochemicals, agriculture implements and fertilizers. Their products are getting diverse to satisfy the agriculture business which is getting more challenging, modern,

and growing demand annually. One of SSH seeds' strengths is that they have their own R&C department, and they are partnering with 45 seed-breeders around the world.

A contracted farmer who is working with Sin Seng Huat wants to build a greenhouse containing various types of fruits for a project that the company already planned for. They do not want to extend their budget because building the greenhouse took a lot of money. The problem is the farmer does not know the whole cost that they need to use to buy the seeds to fill up the greenhouse with various types of fruits. Currently, the farmer is searching for sellers that sell a whole bundle of seeds with a reasonable price and having a good quality of seeds.

2.0 Program descriptions

1. First, after running this program, it will display a greeting to you and ask for your name.

2. After entering your name, it displays the main menu of the application.

```
Good Morning!
How could we call you?
Alan Tan
Hi! Alan Tan Welcome to GROUP6 COMPANY!!!
Which following of service do you like?
1.Bread
Price Calculation for Bread
Bill Payment

2.Cake
Calculation for mass of ingredients to make cake for 1 month

3.Rice
Calculate the yield.
Calculate the next harvest amount.
Arranging the inventory.

4.Dessert
Finance calculation and statement of dessert shop

5.Fruits
Purchasing seeds application

0.Exit
Please enter a number :
```

3. Customers just need to enter the number of services that they want to proceed.

4. After that, customers just need to follow the instructions inside the service to use it.

5. After done using one of the services, the program will ask customers that do you want to continue to other services.

```
Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number:
```

6. If customer choose 1 for yes, the program will display again the main menu and ask the number of services they want to proceed.

```
Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number: 1
Which following of service do you like?
1.Bread
Price Calculation for Bread
Bill Payment

2.Cake
Calculation for mass of ingredients to make cake for 1 month

3.Rice
Calculate the yield.
Calculate the next harvest amount.
Arranging the inventory.

4.Dessert
Finance calculation and statement of dessert shop

5.Fruits
Purchasing seeds application

0.Exit
Please enter a number:
```

7. Customers also can enter 0 to exit the program.

```
Please enter a number: 0
Are you sure?

Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number: 2
OK,thank you for using our service,please come again!!!
```

8. At last, if the customer do not want to continue to other services, enter 2 for no and the program display OK, thank you for using our service, please come again!!! and the program end.

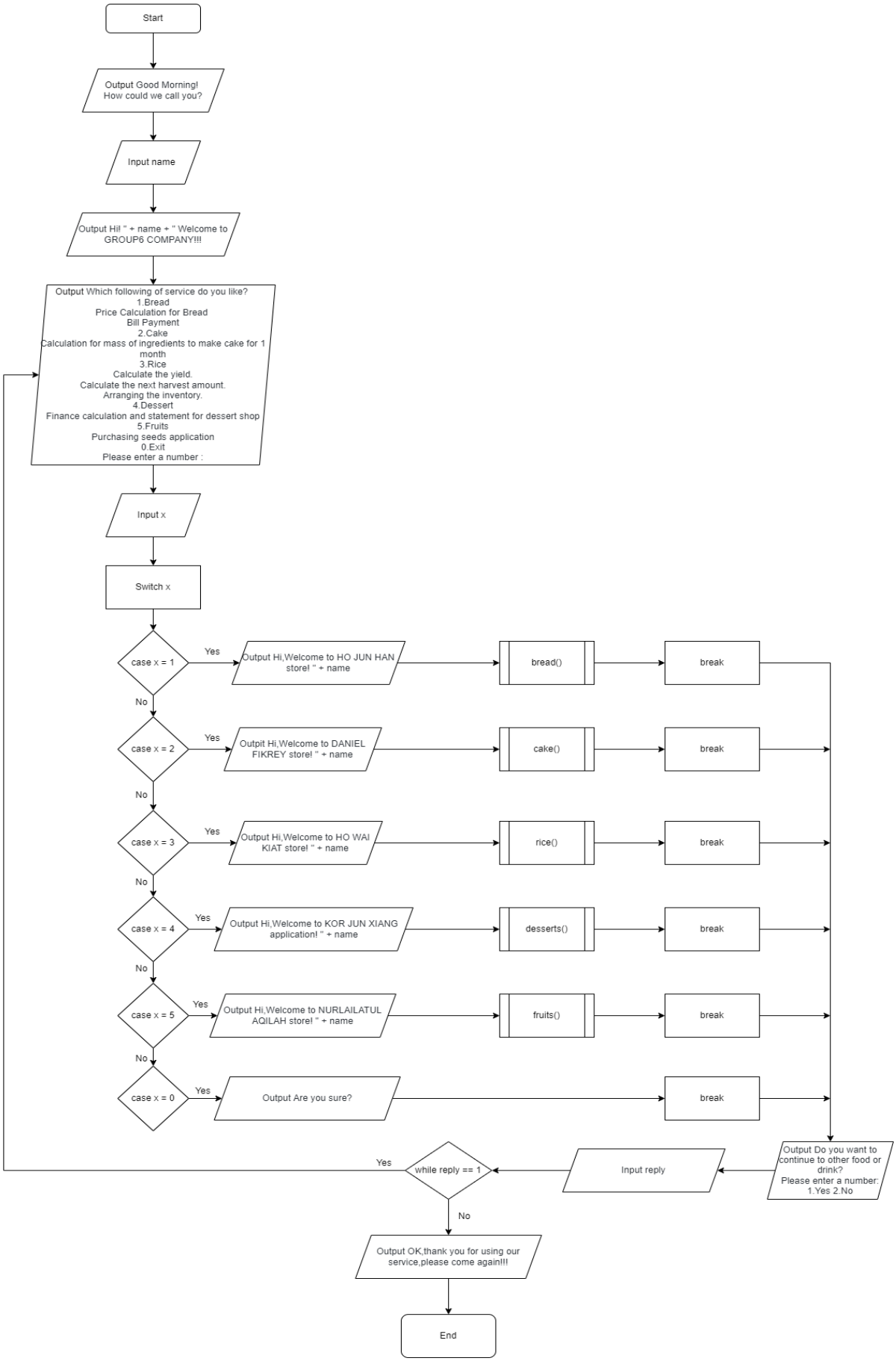
3.0 Algorithm

3.1 Pseudocode

```
Start
        Output “Good Morning!”
        Output “How could we call you?”
        Input name
        Output “Hi! " + name + " Welcome to GROUP6 COMPANY!!!”

        do{
                Output “Which following of service do you like? ”
                Output “1. Bread”
                Output “Price Calculation for Bread”
                Output “Bill Payment”
                Output “2. Cake”
                Output “Calculation for mass of ingredients to make cake for 1 month”
                Output “Bill Payment”
                Output “3. Rice”
                Output “Calculate the yield.”
                Output “Calculate the next harvest amount.”
                Output “Arranging the inventory.”
                Output “4. Dessert”
                Output “Finance calculation and statement of dessert shop”
                Output “5. Fruits”
                Output “Purchasing seeds application”
                Output “0. Exit”
                Output “Please enter a number: ”
                Input x

                switch (x) {

                case 1:
                        Output “Hi,Welcome to HO JUN HAN store! " + name”
                        BREAD bread = new BREAD();
                case 2:
                        Output “Hi,Welcome to DANIEL FIKREY store! " + name”
                        CAKE cake = new CAKE();
                case 3:
                        Output “Hi,Welcome to HO WAI KIAT store! " + name”
                        RICE rice = new RICE();
                case 4:
                        Output “Hi,Welcome to KOR JUN XIANG application! " + name”
                        DESSERTS desserts = new DESSERTS();
                case 5:
                        Output “Hi,Welcome to NURLAILATUL AQILAH store! " + name”
                        FRUITS fruits = new FRUITS();
```

```
            case 0:
                Output "Are you sure?"
            }
            Output "Do you want to continue to other food or drink?"
            Output "1.Yes 2.No"
            Output "Please enter a number :"
            Input reply

        }while (reply == 1)

        Output "OK,thank you for using our service,please come again!!!"
End
```

3.2 Flowchart



4.0 Coding

4.1 Main Menu

```java
package project1;
import java.util.Scanner;
public class Project1 {

    public String name;

    public Project1() {
        // TODO Auto-generated constructor stub
    }

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int x;
        int reply;
        String name;
        Scanner sc = new Scanner (System.in);

        System.out.println("Good Morning!");
        System.out.println("How could we call you?");
        name = sc.nextLine();
        System.out.println("Hi! " + name + " Welcome to GROUP6 COMPANY!!!");

        do{

            System.out.println("Which following of service do you like?");
            System.out.println("1.Bread");
            System.out.println("Price Calculation for Bread");
            System.out.println("Bill Payment");
            System.out.println();

            System.out.println("2.Cake");
            System.out.println("Calculation for mass of ingredients to make cake for 1 month");
            System.out.println();

            System.out.println("3.Rice");
            System.out.println("Calculate the yield.");
            System.out.println("Calculate the next harvest amount.");
            System.out.println("Arranging the inventory.");
            System.out.println();

            System.out.println("4.Dessert");
            System.out.println("Finance calculation and statement of dessert shop ");
            System.out.println();

            System.out.println("5.Fruits");
            System.out.println("Purchasing seeds application");
            System.out.println();

            System.out.println("0.Exit");

            System.out.println("Please enter a number : ");
            x = sc.nextInt();

            switch(x) {

        case 1:
            System.out.println("Hi,Welcome to HO JUN HAN store! " + name);
            BREAD bread = new BREAD();
            System.out.println();
            break;

        case 2:
            System.out.println("Hi,Welcome to DANIEL FIKREY store! " + name);
            CAKE cake = new CAKE();
            System.out.println();
            break;

        case 3:
            System.out.println("Hi,Welcome to HO WAI KIAT store! " + name);
            RICE rice = new RICE();
            System.out.println();
            break;

        case 4:
            System.out.println("Hi,Welcome to KOR JUN XIANG application! " + name);
            DESSERTS desserts = new DESSERTS();
            System.out.println();
            break;

        case 5:
            System.out.println("Hi,Welcome to NURLAILATUL AQILAH store! " + name);
            FRUITS fruits = new FRUITS();
            System.out.println();
            break;
```

```
        case 0:
            System.out.println("Are you sure?");
            System.out.println();
            break;

        }
            System.out.println("Do you want to continue to other food or drink?");
            System.out.println("1.Yes 2.No");
            System.out.print("Please enter a number: ");
            reply = sc.nextInt();

    }while (reply == 1);

        System.out.println("OK,thank you for using our service,please come again!!!");
    }

}
```

4.2 Bread

```
package assignment3;
import java.util.Scanner;

public class Bread {

    private static Scanner sc;
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        inputPassword();
    }

    public static void inputPassword() {
        sc = new Scanner(System.in);

        for(int i=2;i>=0;i--) {
            System.out.print("Enter your password: ");
            int type = sc.nextInt();
            int pass = 12345;
            if(type==pass) {
            System.out.println("Your password is correct.");
            break;
            }else
            System.out.print("Your password is wrong! You have "+i+" chance to try again. ");
            System.out.println();
            if(i==0) {
            System.out.print("Sorry, you need to wait for 5 minutes to key in your password again!");
            return;
            }
        }
        String option[] = {"Options to access:","1)Price Calculation for Bread","2)Bill Payment"};
        display(option);}

    public static void display(String[] option) {
        for(int k = 0; k < option.length; k++ ) {
            System.out.println(option[k]);
        }
        System.out.print("Enter the option that want to access: ");
        int options = sc.nextInt();

        if(options == 1) {
            priceCalculation();
        }
        if(options == 2) {
            billPayment();
        }
    }

    public static int[] priceCalculation() {
        double flour, sugar, yeast, egg;
        double garlic, chocolate, milk, butter;
        double buttermilk, redbean;
        System.out.print("\nEnter price of 1kg flour for one packet: RM");
        flour = sc.nextDouble();
```

```
        System.out.print("Enter price of 1kg sugar for one packet: RM");
        sugar = sc.nextDouble();
        System.out.print("Enter price of egg for one dozen: RM");
        egg = sc.nextDouble();
        System.out.print("Enter price of 11g yeast for one packet: RM");
        yeast = sc.nextDouble();
        System.out.print("Enter price of 1Litre milk for one carton: RM");
        milk = sc.nextDouble();
        System.out.print("Enter price of 250g butter for one packet: RM");
        butter = sc.nextDouble();
        System.out.print("Enter price of chocolate for one bar: RM");
        chocolate = sc.nextDouble();
        System.out.print("Enter price of 500g garlic for one bag: RM");
        garlic = sc.nextDouble();
        System.out.print("Enter price of 325g buttermilk for one carton: RM");
        buttermilk = sc.nextDouble();
        System.out.print("Enter price of 300g red bean for one bag: RM");
        redbean = sc.nextDouble();

        double costCB = 0.125*chocolate + 0.115*flour + 0.0125*sugar + 0.5*egg + 0.19*yeast + 0.045*milk + 0.115*butter;
        double costGB = 0.1*garlic + 0.10575*flour + 0.0095*sugar + 0.25*egg + 0.17*yeast + 0.0125*milk + 0.112*butter;
        double costBSB = 0.035*buttermilk + 0.1125*flour + 0.01875*sugar + 0.25*egg + 0.185*yeast + 0.14*butter;
        double costRBB = 0.1675*redbean + 0.11*flour + 0.015*sugar + 0.25*egg + 0.19*yeast + 0.025*milk + 0.08*butter;

        System.out.printf("\nCost of chocolate breads is: RM%.2f" , costCB);
        System.out.println();
        System.out.printf("Cost of garlic bread is: RM%.2f" , costGB);
        System.out.println();
        System.out.printf("Cost of butter sugar bread is: RM%.2f" , costBSB);
        System.out.println();
        System.out.printf("Cost of red bean bread is: RM%.2f" , costRBB);
        System.out.println();

        double priceCB = (costCB*1.2);
        double priceGB = (costGB*1.35);
        double priceBSB = (costBSB*1.35);
        double priceRBB = (costRBB*1.3);

        System.out.printf("\nPrice of chocolate bread is: RM%.2f" , priceCB);
        System.out.println();
        System.out.printf("Price of garlic bread is: RM%.2f" , priceGB);
        System.out.println();
        System.out.printf("Price of butter sugar bread is: RM%.2f" , priceBSB);
        System.out.println();
        System.out.printf("Price of red bean bread is: RM%.2f" , priceRBB);
        return null;
        }

    public static int[] billPayment() {
        int card, member;
        double ChocolateBread = 6.12;
        double GarlicBread = 4.11;
        double ButterSugarBread = 4.12;
        double RedBeanBread = 4.52;
        int a,b,c,d;
        double total; double totalprice = 0;
        double price[] = {6.12,4.11,4.12,4.52};
        String bread[] = {"Chocolate bread","Garlic bread","Butter sugar bread","Red bean bread"};

        System.out.println();
        System.out.println(bread[0] + ": RM" + price[0]);
        System.out.println(bread[1] + ": RM" + price[1]);
        System.out.println(bread[2] + ": RM" + price[2]);
        System.out.println(bread[3] + ": RM" + price[3]);

        System.out.println("\nDo you have membership card?");
        System.out.println("0 = NO");
        System.out.println("1 = YES");
        System.out.print("Enter number: ");
        card = sc.nextInt();

        if(card == 1) {
            System.out.print("Enter the membership card number: ");
            member = sc.nextInt();
        }
        System.out.print("\nQuantity of chocolate bread: " );
        a = sc.nextInt();
        System.out.print("Quantity of garlic bread: ");
```

```
        b = sc.nextInt();
        System.out.print("Quantity of butter sugar bread: ");
        c = sc.nextInt();
        System.out.print("Quantity of red bean bread: ");
        d = sc.nextInt();
        total = a*ChocolateBread + b*GarlicBread + c*ButterSugarBread + d*RedBeanBread;

        if(card == 0) {
            totalprice = a*ChocolateBread + b*GarlicBread + c*ButterSugarBread + d*RedBeanBread;
            System.out.printf("\nPrice to be paid: RM%.2f%n" , totalprice);
        }

        if(card == 1) {
            double discountreceived = (total*0.1);
            totalprice = total - discountreceived;
            System.out.println();
            System.out.printf("Total price      : RM%.2f%n" , total);
            System.out.printf("Discount received: RM%.2f%n" , discountreceived);
            System.out.printf("Price to be paid : RM%.2f%n" , totalprice);
        }
        System.out.print("\nAmount received: RM");
        double amount = sc.nextDouble();
        double change = amount - totalprice;
        System.out.printf("Change           : RM%.2f" , change);
        return null;
        }
    }
```

4.3 Cake

```
package Assignment_3;
import java.util.Scanner;
public class cake3 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("*    *    *   * * *  *        * *       *       * * * * *   * * *   ");
        System.out.println("*    *    *   *      *      *        *     *    *   *   *   *       ");
        System.out.println("*   * *   *   * *    *     *       *         *  *   *   *   * *     ");
        System.out.println(" * *   * *    *      *     *        *     *    *   *   *   *       ");
        System.out.println("  *     *     * * *  * * *    * *       *       *   *   *   * * *   ");

        System.out.println();

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

        System.out.println();

        showMessage();
        System.out.println();

        int num, i = 0, total = 0, average;
        int num_ingre, num_s;
        int receive, stay;
        double sum, cake_m;
        String month;


        int [] sale = new int [7];

        showMessage2();
        total = sumSales(sale);

```

```
44          System.out.println();
45          System.out.println("*************************************************");
46          System.out.println("*                                               *");
47          System.out.println("*     The total of cake sale for one week is " + total + "    *");
48          average = total /7;
49          System.out.println("* The average of number cake sale for one day is " + average + " *");
50          System.out.println("*                                               *");
51          System.out.println("*************************************************");
52
53          System.out.println();
54
55          System.out.print("Please enter the number of your ingredients : ");
56          num_ingre = sc.nextInt();
57          System.out.println();
58          System.out.println("*************************************************");
59
60          String [] ingredient = new String[num_ingre];
61          double [] mass = new double [num_ingre];
62          double [] stock = new double [num_ingre];
63          double [] total_ing = new double [num_ingre];
64          double [] last = new double [num_ingre];
65          double [] new_mass = new double [num_ingre];
66
67
68          System.out.println();
69
70          System.out.println("Please enter your ingredients :");
71
72          for(int j = 0; j < num_ingre; j++) {
73
74              System.out.print("* ");
75              ingredient[j] = sc.next();
76          }
77
78          System.out.println();
79
80          System.out.println("*************************************************");
81          System.out.println();
82          showMessage3();
83
84          for(int k = 0; k < num_ingre; k++) {
85              System.out.print(ingredient[k] + " : ");
86              mass[k] = sc.nextDouble();
87          }
88
89          System.out.println();
90
91          System.out.println("*************************************************");
92          System.out.println();
93          showMessage4();
94
95          for(int l = 0; l < num_ingre; l++) {
96              System.out.print(ingredient[l] + " : ");
97              stock[l] = sc.nextDouble();
98          }
99
100         cake_m = average * 30;
101
102         for(int m = 0; m < num_ingre; m++) {
103
104             total_ing[m] = mass[m] * cake_m;
105         }
106
107         for(int n = 0; n < num_ingre; n++) {
108             last[n] = total_ing[n] - stock[n];
109         }
110
111         System.out.println();
112
```

```
113         System.out.println("*************************");
114
115         System.out.println("      The results       ");;
116
117         for(int o = 0; o < num_ingre; o++) {
118             System.out.println(" " + ingredient[o] + " : " + last[o] + " kg ");
119         }
120         System.out.println("*************************");
121         System.out.println();
122
123         showMessage5();
124         num_s = sc.nextInt();
125
126         System.out.println();
127
128         if(num_s > 0) {
129             for(int p = 0; p < num_ingre; p++) {
130                 System.out.println(ingredient[p] + " : " + last[p] + " kg");
131                 System.out.print("Enter new mass or number of " + ingredient[p] + " in kg = ");
132                 new_mass[p] = sc.nextDouble();
133
134                 System.out.println();
135             }
136
137             System.out.println();
138             System.out.println("*************************");
139             System.out.println("The new mass of ingredients : ");
140             for(int q = 0; q < num_ingre; q++ ) {
141                System.out.println(ingredient[q] + " = " + new_mass[q] + " kg");
142             }
143         }
144         else {
145             System.out.println("*************************");
146             for(int r = 0; r < num_ingre; r++) {
147                 System.out.println(ingredient[r] + " : " + last[r]);
148             }
149         }

150
151         System.out.println();
152         System.out.println("*************************");
153         System.out.println();
154         System.out.println("Thank you for using our service");
155     }
156     public static int sumSales(int[] cake) {
157         int total = 0;
158         for(int z = 0; z < cake.length; z++ ) {
159             Scanner sc = new Scanner(System.in);
160             System.out.print("Sales : ");
161             cake[z] = sc .nextInt();
162             total = total + cake[z];}
163
164         return total;
165     }
166     public static void showMessage() {
167         System.out.println("This Programme Will Calculate The Mass or Number of Ingredients for 1 Month");
168     }
169     public static void showMessage2() {
170         System.out.println("Please enter the number of sale of the cake day by day in one week :");
171
172     }
173     public static void showMessage3() {
174         System.out.println("Please enter the mass of each ingredient to make one cake : ");
175     }
176     public static void showMessage4() {
177         System.out.println("Please enter the mass of remaining stock of each ingredients :");
178     }
179     public static void showMessage5() {
180         System.out.println("Do you want to add more the ingredient???");
181         System.out.println("If you want to add more the amount of the ingredient , please enter 1");
182         System.out.println("If you want to stay with the amount of the ingredient, please enter 0");
183     }
184
185 }
```

4.4 Rice

```
package rice;

import java.util.Scanner;

public class RICE3 {

    public RICE3() {
        // TODO Auto-generated constructor stub
    }

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int x,y;
        double a,b,c,d,e,f;
        int p,q,r,s;
        int percentage;
        int i = 1;

        double a1,b1,c1,d1,e1,f1;

        double sum1,sum2,sum3,sum4,sum5,sum6,sum7,sum8,sum9,sum10,sum11,sum12;


        double[][]rice = new double[6][3];
        double[][]rice1 = new double[6][3];
        double[][]sum = new double[6][3];

        int service;
        Scanner sc = new Scanner (System.in);
        do {
        System.out.println("Hi,what service do you need?");
        System.out.println("1:Calculate the yield.");
        System.out.println("2:Calculate the next harvest amount.");
        System.out.println("3:Arranging the inventory.");
System.out.println("0:Exit.");
System.out.print("Please enter the number : ");
x = sc.nextInt();
System.out.println();

if(x == 1) {
System.out.println("Please enter the weight in sample unit(kg/10m2)");
System.out.println("Enter the weight of Black rice:");
a = sc.nextDouble();

System.out.println("Enter the weight of Jasmine rice:");
b = sc.nextDouble();

System.out.println("Enter the weight of Brown rice:");
c = sc.nextDouble();

System.out.println("Enter the weight of Red Cargo rice:");
d = sc.nextDouble();

System.out.println("Enter the weight of Sticky rice:");
e = sc.nextDouble();

System.out.println("Enter the weight of Long grain white rice:");
f = sc.nextDouble();


System.out.println("Please enter the area of the farm of each type of rice (hectare)");
System.out.println("Enter the area of Black rice farm:");
a1 = sc.nextDouble();

System.out.println("Enter the area of Jasmine rice farm:");
b1 = sc.nextDouble();

System.out.println("Enter the area of Brown rice farm:");
```

```
c1 = sc.nextDouble();

System.out.println("Enter the area of Red Cargo rice farm:");
d1 = sc.nextDouble();

System.out.println("Enter the area of Sticky rice farm:");
e1 = sc.nextDouble();

System.out.println("Enter the area of Long grain white rice farm:");
f1 = sc.nextDouble();


System.out.println();



sum1 = (a*1000) * a1;
sum2 = (b*1000) * b1;
sum3 = (c*1000) * c1;
sum4 = (d*1000) * d1;
sum5 = (e*1000) * e1;
sum6 = (f*1000) * f1;

System.out.println("***********************************************");
System.out.println("*The formula of kg/ha is kg/10m2 x 1000 = kg/ha*");
System.out.println("*The formula of kg is kg/ha x hectare = kg     *");
System.out.println("*The yield of each type of rice in kg          *");
System.out.println("***********************************************");

System.out.println();

System.out.printf("%-7s%3.2f%2s%n","Black rice :" , sum1 , "kg");
System.out.printf("%-7s%3.2f%2s%n","Jasmine rice :" , sum2 , "kg");
System.out.printf("%-7s%3.2f%2s%n","Brown rice :" , sum3 , "kg");
System.out.printf("%-7s%3.2f%2s%n","Red Cargo rice :" , sum4 , "kg");
System.out.printf("%-7s%3.2f%2s%n","Sticky rice :" , sum5 , "kg");
System.out.printf("%-7s%3.2f%2s%n","Long grain white rice :" , sum6 , "kg");

System.out.println();

sum7 = sum1 * 2.2;
sum8 = sum2 * 2.2;
sum9 = sum3 * 2.2;
sum10 = sum4 * 2.2;
sum11 = sum5 * 2.2;
sum12 = sum6 * 2.2;
System.out.println("***********************************************");
System.out.println("*The formula of 1 kg/ha is 2.2lbs/ha          *");
System.out.println("*The formula of lbs is lbs/ha x hectare = lbs*");
System.out.println("*The yield of each type of rice in lbs        *");
System.out.println("***********************************************");

System.out.println();

System.out.printf("%-7s%3.2f%2s%n","Black rice :" , sum7 , "lbs");
System.out.printf("%-7s%3.2f%2s%n","Jasmine rice :" , sum8 , "lbs");
System.out.printf("%-7s%3.2f%2s%n","Brown rice :" , sum9 , "lbs");
System.out.printf("%-7s%3.2f%2s%n","Red Cargo rice :" , sum10 , "lbs");
System.out.printf("%-7s%3.2f%2s%n","Sticky rice :" , sum11 , "lbs");
System.out.printf("%-7s%3.2f%2s%n","Long grain white rice :" , sum12 , "lbs");}



else if(x == 2) {
System.out.println("Please enter the current yield of Black rice(kg/ha)");
a = sc.nextDouble();
```

```
    System.out.println("Please enter the current yield of Jasmine rice(kg/ha)");
    b = sc.nextDouble();


    System.out.println("Please enter the current yield of Brown rice(kg/ha)");
    c = sc.nextDouble();


    System.out.println("Please enter the current yield of Red Cargo rice(kg/ha)");
    d = sc.nextDouble();


    System.out.println("Please enter the current yield of Sticky rice(kg/ha)");
    e = sc.nextDouble();


    System.out.println("Please enter the current yield of Long grain white rice(kg/ha)");
    f = sc.nextDouble();

        System.out.println("Please select the percentage by following type of factors");
        System.out.println("Climate");
        System.out.println("Spring: +10%");
        System.out.println("Summer: +10%");
        System.out.println("Autumn: -10%");
        System.out.println("Winter: +5%");
        System.out.println("Enter the percentage(%)");
        p = sc.nextInt();;

        System.out.println("Government policy");
        System.out.println("Tax: -5%");
        System.out.println("Allowance: +10%");
        System.out.println("Enter the percentage(%)");
        q = sc.nextInt();
```

```
    System.out.println("Human Resources");
    System.out.println("Enough: +10%");
    System.out.println("Lack: -10%");
    System.out.println("Enter the percentage(%)");
    r = sc.nextInt();

    System.out.println("Cost of production");
    System.out.println("Increase: -5%");
    System.out.println("Decrease: +5%");
    System.out.println("Enter the percentage(%)");
    s = sc.nextInt();

percentage = p+q+r+s;

switch(percentage) {
case 5 : System.out.println("The next harvest amount of each of the rice");
         System.out.printf("%-7s%3.2f%2s%n","The amount of the black rice:",(a * 1.05),"kg/ha") ;
         System.out.printf("%-7s%3.2f%2s%n","The amount of the Jasmine rice:",(b * 1.05) ,"kg/ha") ;
         System.out.printf("%-7s%3.2f%2s%n","The amount of the Brown rice:",(c * 1.05),"kg/ha") ;
         System.out.printf("%-7s%3.2f%2s%n","The amount of the Red Cargo rice:",(d * 1.05),"kg/ha") ;
         System.out.printf("%-7s%3.2f%2s%n","The amount of the Sticky rice:",(e * 1.05),"kg/ha") ;
         System.out.printf("%-7s%3.2f%2s%n","The amount of the Long grain white rice:",(f * 1.05),"kg/ha") ;
break;

case 10 : System.out.println("The next harvest amount of each of the rice");
          System.out.printf("%-7s%3.2f%2s%n","The amount of the black rice:",(a * 1.10),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Jasmine rice:",(b * 1.10) ,"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Brown rice:",(c * 1.10),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Red Cargo rice:",(d * 1.10),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Sticky rice:",(e * 1.10),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Long grain white rice:",(f * 1.10),"kg/ha") ;
break;
```

```
case 15 : System.out.println("The next harvest amount of each of the rice");
          System.out.printf("%-7s%3.2f%2s%n","The amount of the black rice:",(a * 1.15),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Jasmine rice:",(b * 1.15) ,"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Brown rice:",(c * 1.15),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Red Cargo rice:",(d * 1.15),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Sticky rice:",(e * 1.15),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Long grain white rice:",(f * 1.15),"kg/ha") ;
break;

case 20 : System.out.println("The next harvest amount of each of the rice");
          System.out.printf("%-7s%3.2f%2s%n","The amount of the black rice:",(a * 1.20),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Jasmine rice:",(b * 1.20) ,"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Brown rice:",(c * 1.20),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Red Cargo rice:",(d * 1.20),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Sticky rice:",(e * 1.20),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Long grain white rice:",(f * 1.20),"kg/ha") ;
break;


case 25 : System.out.println("The next harvest amount of each of the rice");
          System.out.printf("%-7s%3.2f%2s%n","The amount of the black rice:",(a * 1.25),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Jasmine rice:",(b * 1.25) ,"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Brown rice:",(c * 1.25),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Red Cargo rice:",(d * 1.25),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Sticky rice:",(e * 1.25),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Long grain white rice:",(f * 1.25),"kg/ha") ;
break;

case 30 : System.out.println("The next harvest amount of each of the rice");
          System.out.printf("%-7s%3.2f%2s%n","The amount of the black rice:",(a * 1.30),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Jasmine rice:",(b * 1.30) ,"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Brown rice:",(c * 1.30),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Red Cargo rice:",(d * 1.30),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Sticky rice:",(e * 1.30),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Long grain white rice:",(f * 1.30),"kg/ha") ;
break;

case 35 : System.out.println("The next harvest amount of each of the rice");
          System.out.printf("%-7s%3.2f%2s%n","The amount of the black rice:",(a * 1.35),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Jasmine rice:",(b * 1.35) ,"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Brown rice:",(c * 1.35),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Red Cargo rice:",(d * 1.35),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Sticky rice:",(e * 1.35),"kg/ha") ;
          System.out.printf("%-7s%3.2f%2s%n","The amount of the Long grain white rice:",(f * 1.35),"kg/ha") ;
break;

default : System.out.println("You are something wrong.");}}


else if(x == 3) {
    do
    {

        System.out.println("Select an SERVICE : ");
        System.out.println("1. ENTER THE INITIAL INVENTORY.");
        System.out.println("2. ENTER THE CURRENT INVENTORY.");
        System.out.println("3. CALCULATE THE FINAL INVENTORY.");
        System.out.println("4. CHECKING THE INVENTORY OF THE RICE");
        System.out.println("0.BACK");
        System.out.print("Enter a number : ");
        service = sc.nextInt();
        System.out.println();

        switch (service)
        {
            case 0:
                System.out.println();
                break;
```

```
case 1:
    System.out.println("Please enter the initial inventory(kg/ha) in this order.");
    System.out.println("1.Black rice(GRADE A)");
    System.out.println("2.Black rice(GRADE B)");
    System.out.println("3.Black rice(GRADE C)");
    System.out.println("4.Jasmine rice(GRADE A)");
    System.out.println("5.Jasmine rice(GRADE B)");
    System.out.println("6.Jasmine rice(GRADE C)");
    System.out.println("7.Brown rice(GRADE A)");
    System.out.println("8.Brown rice(GRADE B)");
    System.out.println("9.Brown rice(GRADE C)");
    System.out.println("10.Red Cargo rice(GRADE A)");
    System.out.println("11.Red Cargo rice(GRADE B)");
    System.out.println("12.Red Cargo rice(GRADE C)");
    System.out.println("13.Sticky rice(GRADE A)");
    System.out.println("14.Sticky rice(GRADE B)");
    System.out.println("15.Sticky rice(GRADE C)");
    System.out.println("16.Long grain white rice(GRADE A)");
    System.out.println("17.Long grain white rice(GRADE B)");
    System.out.println("18.Long grain white rice(GRADE C)");

    inputArray(rice);
    System.out.println();
    break;

case 2:
    System.out.println("Please enter the current inventory(kg/ha) in this order.");
    System.out.println("1.Black rice(GRADE A)");
    System.out.println("2.Black rice(GRADE B)");
    System.out.println("3.Black rice(GRADE C)");
    System.out.println("4.Jasmine rice(GRADE A)");
    System.out.println("5.Jasmine rice(GRADE B)");
    System.out.println("6.Jasmine rice(GRADE C)");
    System.out.println("7.Brown rice(GRADE A)");
      System.out.println("8.Brown rice(GRADE B)");
      System.out.println("9.Brown rice(GRADE C)");
      System.out.println("10.Red Cargo rice(GRADE A)");
      System.out.println("11.Red Cargo rice(GRADE B)");
      System.out.println("12.Red Cargo rice(GRADE C)");
      System.out.println("13.Sticky rice(GRADE A)");
      System.out.println("14.Sticky rice(GRADE B)");
      System.out.println("15.Sticky rice(GRADE C)");
      System.out.println("16.Long grain white rice(GRADE A)");
      System.out.println("17.Long grain white rice(GRADE B)");
      System.out.println("18.Long grain white rice(GRADE C)");

      inputArray1(rice1);
      System.out.println();
      break;

  case 3:
       System.out.println("The final inventory(kg/ha). ");
       {for(int i1=0;i1<6;i1++){
       for(int j=0;j<3;j++){
           sum[i1][j]=rice[i1][j]+rice1[i1][j];
           }}}

      printArray(sum);
      System.out.println();
      break;

  case 4:
      System.out.println("Please enter the number of the rice you want to check.");
      System.out.println("1.Black rice(GRADE A)");
      System.out.println("2.Black rice(GRADE B)");
      System.out.println("3.Black rice(GRADE C)");
      System.out.println("4.Jasmine rice(GRADE A)");
      System.out.println("5.Jasmine rice(GRADE B)");
```

```
        System.out.println("6.Jasmine rice(GRADE C)");
        System.out.println("7.Brown rice(GRADE A)");
        System.out.println("8.Brown rice(GRADE B)");
        System.out.println("9.Brown rice(GRADE C)");
        System.out.println("10.Red Cargo rice(GRADE A)");
        System.out.println("11.Red Cargo rice(GRADE B)");
        System.out.println("12.Red Cargo rice(GRADE C)");
        System.out.println("13.Sticky rice(GRADE A)");
        System.out.println("14.Sticky rice(GRADE B)");
        System.out.println("15.Sticky rice(GRADE C)");
        System.out.println("16.Long grain white rice(GRADE A)");
        System.out.println("17.Long grain white rice(GRADE B)");
        System.out.println("18.Long grain white rice(GRADE C)");
        System.out.print("Enter integer between 1-18 : ");

        int z = sc.nextInt();
        System.out.println();
        switch (z) {

    case 1 :
        System.out.print("Black rice(GRADE A) : ");
        search(sum, 0,0);
        System.out.println();
        break;

    case 2 :
        System.out.print("Black rice(GRADE B) : ");
        search(sum, 0,1);
        System.out.println();
        break;

    case 3 :
        System.out.print("Black rice(GRADE C) : ");
        search(sum, 0,2);
            System.out.println();
            break;

        case 4 :
            System.out.print("Jasmine rice(GRADE A) : ");
            search(sum, 1,0);
            System.out.println();
            break;

        case 5 :
            System.out.print("Jasmine rice(GRADE B) : ");
            search(sum, 1,1);
            System.out.println();
            break;

        case 6 :
            System.out.print("Jasmine rice(GRADE C) : ");
            search(sum, 1,2);
            System.out.println();
            break;

        case 7 :
            System.out.print("Brown rice(GRADE A) : ");
            search(sum, 2,0);
            System.out.println();
            break;

        case 8 :
            System.out.print("Brown rice(GRADE B) : ");
            search(sum, 2,1);
            System.out.println();
            break;
```

```
    case 9 :
        System.out.print("Brown rice(GRADE C) : ");
        search(sum, 2,2);
        System.out.println();
        break;

    case 10 :
        System.out.print("Red Cargo rice(GRADE A) : ");
        search(sum, 3,0);
        System.out.println();
        break;

    case 11 :
        System.out.print("Red Cargo rice(GRADE B) : ");
        search(sum, 3,1);
        System.out.println();
        break;

    case 12 :
        System.out.print("Red Cargo rice(GRADE C) : ");
        search(sum, 3,2);
        System.out.println();
        break;

    case 13 :
        System.out.print("Sticky rice(GRADE A) : ");
        search(sum, 4,0);
        System.out.println();
        break;

    case 14 :
        System.out.print("Sticky rice(GRADE B) : ");
        search(sum, 4,1);
        System.out.println();
        break;

case 15 :
    System.out.print("Sticky rice(GRADE C) : ");
    search(sum, 4,2);
    System.out.println();
    break;

case 16 :
    System.out.print("Long grain white rice(GRADE A) : ");
    search(sum, 5,0);
    System.out.println();
    break;

case 17 :
    System.out.print("Long grain white rice(GRADE B) : ");
    search(sum, 5,1);
    System.out.println();
    break;

case 18 :
    System.out.print("Long grain white rice(GRADE C) : ");
    search(sum, 5,2);
    System.out.println();
    break;

    }
    break;


default:
    System.out.println("What'wrong with you?Enter a proper number!");
    System.out.println();
    break;
```

```
        }

    } while (service == 1|| service == 2|| service == 3|| service == 4);

}

else if((x != 1) && (x != 2) && (x != 3) && (x != 0)) {
    System.out.println("Enter a proper number!");
}



else {//exit
    for (y=1; y<4; y++) {
      if (y == 1) {
          System.out.println("ok,you're exit.");

      }else if (y==2) {
          System.out.println("Thank you by using our service.");

      }else {
          System.out.println("Goodbye!");

      }i++;

      }

}
System.out.println();


}while(i<3);    }
```

```
public static void inputArray(double[][] number){
      int row;
      int col;
      Scanner input = new Scanner (System.in);
      for (row = 0; row < number.length; row++)
          for (col = 0; col < number[row].length; col++)
           number[row][col] = input.nextInt();


public static void inputArray1(double[][] number){
      int row;
      int col;
      Scanner input = new Scanner (System.in);
      for (row = 0; row < number.length; row++)
          for (col = 0; col < number[row].length; col++)
           number[row][col] = input.nextInt();


public static void printArray(double[][] number){
    System.out.println("1.Black rice(GRADE A) : " + number[0][0] + " kg/ha");
    System.out.println("2.Black rice(GRADE B) : " + number[0][1] + " kg/ha");
    System.out.println("3.Black rice(GRADE C) : " + number[0][2] + " kg/ha");
    System.out.println("4.Jasmine rice(GRADE A) : " + number[1][0] + " kg/ha");
    System.out.println("5.Jasmine rice(GRADE B) : " + number[1][1] + " kg/ha");
    System.out.println("6.Jasmine rice(GRADE C) : " + number[1][2] + " kg/ha");
    System.out.println("7.Brown rice(GRADE A) : " + number[2][0] + " kg/ha");
    System.out.println("8.Brown rice(GRADE B) : " + number[2][1] + " kg/ha");
    System.out.println("9.Brown rice(GRADE C) : " + number[2][2] + " kg/ha");
    System.out.println("10.Red Cargo rice(GRADE A) : " + number[3][0] + " kg/ha");
    System.out.println("11.Red Cargo rice(GRADE B) : " + number[3][1] + " kg/ha");
    System.out.println("12.Red Cargo rice(GRADE C) : " + number[3][2] + " kg/ha");
    System.out.println("13.Sticky rice(GRADE A) : " + number[4][0] + " kg/ha");
    System.out.println("14.Sticky rice(GRADE B) : " + number[4][1] + " kg/ha");
    System.out.println("15.Sticky rice(GRADE C) : " + number[4][2] + " kg/ha");
```

```
            System.out.println("16.Long grain white rice(GRADE A) : " + number[5][0] + " kg/ha");
            System.out.println("17.Long grain white rice(GRADE B) : " + number[5][1] + " kg/ha");
            System.out.println("18.Long grain white rice(GRADE C) : " + number[5][2] + " kg/ha");

        }



         static int search(double[][] num, int searchValue,int searchValue1){
             for (int i=0; i < num.length; i++) {
                 if( i == searchValue)  {
                     for (int j=0; j < num.length; j++)
                         if( j == searchValue1) {
                          System.out.println(num[i][j] + " kg/ha");}

                 }
             }

            return searchValue;
    }

}
```

4.5 Desserts

```
package project1;
import java.util.Scanner;
public class DESSERTS {

    public DESSERTS() {
        // TODO Auto-generated constructor stub
        Scanner sc = new Scanner(System.in);
        int range;
        System.out.print("Enter how many types of desserts you sell in your store: ");
        range = sc.nextInt();
        String [] dessert = new String [range];
        double [] price = new double [range];
        double [] cost = new double [range];
        int [] quantity = new int [range];
        double [] grossprft = new double [range];
        double totalcostingredients = 0;
        double totalgrossprft = 0;
        double totalsales = 0;
        display1(dessert, price, cost, quantity, grossprft, totalcostingredients, totalgrossprft, totalsales);
    }

        public static void display1(String[]dessert, double[]price, double[]cost, int[]quantity, double[]gross, double totalcts, double totalgrs, double totalsls) {
            Scanner sc = new Scanner(System.in);
            double income = 0;
            double totalothercosts = 0;
            totalcts = 0;
            totalgrs = 0;
            totalsls = 0;
            System.out.println("Enter the "+dessert.length+" type of desserts :");

            for(int x=0; x<dessert.length; x++) {
                dessert[x] = sc.nextLine();
            }
            System.out.println();

            for(int x=0; x<dessert.length; x++) {
                System.out.print("Price of the "+dessert[x]+" : RM");
                price[x] = sc.nextDouble();
                System.out.print("Cost of ingredients of the "+dessert[x]+" : RM");
                cost[x] = sc.nextDouble();
                System.out.print("Quantity of the "+dessert[x]+" sold : ");
                quantity[x] = sc.nextInt();
                System.out.println();
            }

            for(int x=0; x<dessert.length; x++) {
                gross[x] = price[x] - cost[x];
            }

            for(int x=0; x<dessert.length; x++) {
                totalcts += quantity[x] * cost[x];
                totalgrs += quantity[x] * gross[x];
                totalsls += quantity[x] * price[x];
            }
            totalothercosts = display2(totalothercosts);
            income = totalgrs-totalothercosts;
            displayDesserts(dessert, price, quantity, cost, gross);
            System.out.println();
            displayFinancialStatement(totalsls, totalcts, totalgrs, totalothercosts, income);
            System.out.println();
            display3(totalothercosts, income, totalgrs);
            System.out.println();
        }

        public static double display2(double totalotr) {
            Scanner sc = new Scanner(System.in);
            char reply;
            int numberemployee;
            double employeesalary, totalsalary, rent, utilities, transport;
            totalotr = 0;
            System.out.println("Have you hired staff? (Yes or No)");
            reply = sc.next().charAt(0);

            if(reply == 'Y' || reply == 'y') {
                System.out.print("Enter the number of employees you hired : ");
                numberemployee = sc.nextInt();
                System.out.print("Enter the employee salary : RM");
                employeesalary = sc.nextDouble();
                totalsalary = 0;

                for(int x=0 ; x<numberemployee ; x++) {
                    totalsalary += employeesalary;
                }
                System.out.print("Enter the rent payment per month : RM");
```

```
            rent = sc.nextDouble();
            System.out.print("Enter the utilities fee for this month : RM");
            utilities = sc.nextDouble();
            System.out.print("Enter the transport fee for this month : RM");
            transport = sc.nextDouble();
            System.out.println();
            totalotr = totalsalary + rent + utilities + transport;
        }
        else if(reply == 'N' || reply == 'n') {
            System.out.print("Enter the rent payment per month : RM");
            rent = sc.nextDouble();
            System.out.print("Enter the utilities fee for this month : RM");
            utilities = sc.nextDouble();
            System.out.print("Enter the transport fee for this month : RM");
            transport = sc.nextDouble();
            System.out.println();
            totalotr = rent + utilities + transport;
        }
        return totalotr;
    }

    public static void displayDesserts(String[]dessert, double[]price, int[]quantity, double[]cost, double[]gross) {
        System.out.println("Desserts detail:");
        for(int x=0; x<dessert.length; x++) {
            System.out.println(+(x+1)+". "+dessert[x]+" \tPrice: RM"+price[x]+" \tQuantity Sold: "+quantity[x]+" \tCost: RM"+cost[x]+" \tGross Profit: RM"+gross[x]);
        }
    }

    public static void displayFinancialStatement(double totalsls, double totalcts, double totalgrs, double totalothercosts, double income) {
        System.out.println("\t FINANCIAL STATEMENT");
        System.out.println("\t*********************************************************************************");
        System.out.println("\t TOTAL SALES    \t   = RM"+totalsls);
        System.out.println("\t TOTAL COST OF INGREDIENTS = RM"+totalcts);
        System.out.println("\t_____________________________________________");
        System.out.println("\t TOTAL GROSS PROFIT \t   = RM"+totalgrs);
        System.out.println("\t TOTAL OTHER COST \t= RM"+totalothercosts);
        System.out.println("\t_____________________________________________");
        System.out.println("\t NET INCOME \t\t= RM"+income);
        System.out.println("\t*********************************************************************************");
    }

    public static void display3(double totalothercosts, double income, double totalgrs) {
        if(totalgrs > totalothercosts) {
            if(income >= 5000) {
                System.out.println("\"You have a decent income and can keep your business going.\"");
            }
            else if(income < 5000) {
                System.out.println("\"Despite the low income, you can still keep your business going.\"");
            }
        }
        else {
                System.out.println("\"Your company is losing money, and if you continue to operate, you will face bankruptcy.\"");
        }
    }

}
```

4.6 Fruits

```
package taskThree;
import java.util.Scanner;
public class FRUITS3 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

       Scanner scan = new Scanner (System.in);

        String name;
        String address;
        String gender;
        int age;
        String fruit, fruit2;
        int weight, weight2;
        int amount, amount2;
        int price1 , price2;
        int finalprice, finalprice2;
        int total;
        String member;
        char choice;
        int finaltotal;
        int discountreceived;
        int delivery;
        int method;

        System.out.print("Please enter your name : ");
        name = scan.nextLine();

        System.out.print("Please enter your state : ");
        address = scan.next();

        System.out.print("Please enter your gender : ");
        gender = scan.next();
```

```
36          System.out.print("Please enter your age : ");
37          age = scan.nextInt();
38
39          System.out.println();
40
41          System.out.print("Welcome to the Green Eagle Seed Application," + name );
42
43          System.out.println();
44          System.out.println();
45
46          System.out.println("You have a notification from the application !");
47          showNotification(name);
48
49          System.out.println("* * * * * * * * * * * *");
50
51          System.out.println("MENU");
52
53          System.out.println("Type of seed      *" + " Price (200g) " + "*" + " Price (500g) ");
54          System.out.println("************************************************************" );
55          System.out.println("Apple             *" + "    RM60      " + "*" + "   RM110      ");
56          System.out.println("Premium.Apple     *" + "    RM70      " + "*" + "   RM120      ");
57          System.out.println("Strawberry        *" + "    RM80      " + "*" + "   RM150      ");
58          System.out.println("Premium.Strawberry*" + "    RM90      " + "*" + "   RM160      ");
59          System.out.println("Grape             *" + "    RM50      " + "*" + "   RM100      ");
60          System.out.println("Premium.Grape     *" + "    RM60      " + "*" + "   RM110      ");
61          System.out.println("Orange            *" + "    RM45      " + "*" + "    RM90      ");
62          System.out.println("Premium.Orange    *" + "    RM55      " + "*" + "   RM100      ");
63          System.out.println("************************************************************" );
64
65          System.out.println();
66
67          System.out.print("Please enter the type of seed you want to buy : ");
68          fruit = scan.next();
```

```
70              System.out.print("Choose either 200g or 500g : " );
71              weight = scan.nextInt();
72
73              System.out.print("Enter the price of seed you want to buy : RM");
74              price1 = scan.nextInt();
75
76              System.out.print("How many bag of seed you want to buy ? : ");
77              amount = scan.nextInt();
78
79              finalprice = price1 * amount;
80
81              System.out.println("* * * * * * * * ");
82
83              System.out.print("Please enter the second type of seed you want : ");
84              fruit2 = scan.next();
85
86              System.out.print("Choose either 200g or 500g : ");
87              weight2 = scan.nextInt();
88
89              System.out.print("Enter the price of seed you want to buy : RM");
90              price2 = scan.nextInt();
91
92              System.out.print("How many bag of seed you want to buy ? : ");
93              amount2 = scan.nextInt();
94
95              finalprice2 = price2 * amount2;
96
97              total = finalprice + finalprice2;
98
99              System.out.println();
100             System.out.println("* * * * * * * * ");
101
```

```
        System.out.print("Enter the number of seed types you want to buy: ");
        int seed = scan.nextInt();
        String [] seedType = new String [seed];

        for ( int a = 0; a < seed; a++) {
            System.out.println ("Enter the " + (a + 1 ) + " name :");
            seedType[a] = scan.next();
        }

        System.out.println("The seeds you want to buy are : ");

        for ( String b : seedType) {
            System.out.println(b);
        }


        System.out.println("The total price of your products : RM" + total);

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

        System.out.println("These are only for users' information.");

        int [] list1 = {60,70,80,90,50,60,45,55};
        int sum, expensive;

        sum = sumArray(list1);
        System.out.println("The total price of 200g seeds are : RM" + sum);

        expensive = indexExpensive(list1);
        System.out.println("The most expensive seed's price is : RM" + list1[expensive]);
        System.out.println("* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");
```

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

    int [] list2 = {110,120,150,160,100,110,90,100};
    int sum2;
    int expensive2;

    sum2 = sumArray2 (list2);
    System.out.println("The total price of 500g seeds are : RM" + sum2);

    expensive2 = indexExpensive2(list2);
    System.out.println("The most expensive seed's price is : RM" + list2 [expensive]);
    System.out.println("* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");

    System.out.println("Are you a member ?");
    System.out.println("Enter 'Y' if you are a member. \nEnter 'N' if you are not a member.");
    member = scan.next();
    choice = member.charAt(0);

    if (choice == 'N') {
        System.out.println("Do you want to be a member ?");
        System.out.println("Enter 'A' if you want to be a member. \nEnter 'B' if you do not want to be a member.");
        member = scan.next();
        choice = member.charAt(0);
    }

    if (choice == 'A')
       System.out.println("Your member's name is " + name);

    else if (choice == 'B')
        System.out.println("You will not get any benefits.");

```

```
169
170         else 
171             System.out.println("You already a member. ");
172 
173 
174         System.out.println();
175         System.out.println("If you are a member, you will get benefits like down below :");
176         System.out.print("You will get a RM5 off voucher for next purchase for minimum spending RM100. \nIf you are spending
    RM300 and above, you will get a RM10 off for next purchase, a free tool and free delivery.");
177 
178         System.out.println();
179         System.out.println();
180 
181         System.out.println("You can choose the method of paying.");
182         System.out.println("Enter [1] for online banking. \nEnter [2] for cash on delivery.");
183         System.out.print("Please enter your choice : ");
184         method = scan.nextInt();
185 
186         while (method != 1 && method != 2 ) {
187             System.out.println("INVALID METHOD");
188             System.out.print("Please enter your choice again : ");
189             method = scan.nextInt();
190         }
191 
192         if (method == 1){
193             System.out.print("You are choosing online banking as a payment method.");
194         }
195 
196         else {
197             System.out.println("You are choosing cash on delivery as a payment method.");
198 
199         }
200 
201 
202         System.out.println();
203         System.out.println();
```

```
202         System.out.println();
203         System.out.println();
204 
205         if (choice == 'A') {
206             System.out.println("* * * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");
207              System.out.println("You will get 25% off as a new member.");
208              System.out.println("You have to pay RM50 per year to keep being a member.");
209             discountreceived = (total*25)/100;
210             System.out.println("You get RM" + discountreceived + " off.");
211             System.out.println("You have to pay RM5 for delivery cost.");
212             finaltotal = total - discountreceived + 50 ;
213             delivery = finaltotal +5;
214             System.out.println("The final amount you have to pay is RM" + delivery);
215             System.out.println("* * * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");
216         }
217 
218         else if (total <= 100) {
219             System.out.println("* * * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");
220             System.out.println("You get RM5 off voucher for next purchase.");
221             finaltotal = total + 50;
222             System.out.println("You have to pay RM5 for delivery cost.");
223             delivery = finaltotal + 5;
224             System.out.println("The final amount you have to pay is RM" + delivery);
225             System.out.println("* * * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");
226         }
227 
228         else if (total >= 300) {
229             System.out.println("* * * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");
230             System.out.println("You get RM10 off for next purchase, a free tool and and also free delivery.");
231             finaltotal = total + 50;
232             System.out.println("The final amount you have to pay is RM" + finaltotal);
233             System.out.println("* * * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * *");
234         }
235 
236 
```

```
236
237         else {
238             System.out.println("* * * * * * * * * * * * * * * * * * *  *  * *  * * ** * * * *");
239             System.out.println("You have to pay RM5 for delivery cost.");
240             delivery = total + 5;
241             System.out.println("The final amount you have to pay is RM" + delivery);
242             System.out.println("* * * * * * * * * * * * * * * * * * *  *  * *  * * ** * * * *");
243         }
244     }
245
246     public static int sumArray(int [] list) {
247         int x;
248         int sum = 0;
249         for ( x = 0; x <list.length; x++)
250             sum = sum + list[x];
251         return sum;
252
253     }
254
255     public static int indexExpensive (int [] list) {
256         int y;
257         int i = 0;
258         for (y = 1; y < list.length; y++)
259             if (list[i] < list[y])
260                 i = y;
261         return i;
262     }
263
264     public static int sumArray2 (int [] list) {
265         int m;
266         int sum2 = 0;
267         for ( m = 0; m < list.length; m++)
268             sum2 = sum2 + list[m];
269         return sum2;
270     }
271
```

```
271
272     public static int indexExpensive2(int [] list) {
273         int j;
274         int k = 0;
275         for (j = 1; j < list.length; j++)
276             if (list[k] < list[j])
277                 k = j;
278         return k;
279
280     }
281
282     public static void showNotification(String g) {
283         System.out.println("Hello " + g );
284         System.out.println("Feel free to check the seeds we offer !");
285     }
286         }
287
```

5.0 The sample run

```
Good Morning!
How could we call you?
Alan Tan
Hi! Alan Tan Welcome to GROUP6 COMPANY!!!
Which following of service do you like?
1.Bread
Price Calculation for Bread
Bill Payment

2.Cake
Calculation for mass of ingredients to make cake for 1 month

3.Rice
Calculate the yield.
Calculate the next harvest amount.
Arranging the inventory.

4.Dessert
Finance calculation and statement of dessert shop

5.Fruits
Purchasing seeds application

0.Exit
Please enter a number: 1
Hi,Welcome to HO JUN HAN store! Alan Tan
Enter your password: 12345
Your password is correct.
Options to access:
1)Price Calculation for Bread
2)Bill Payment
Enter the option that want to access: 2

Chocolate bread: RM6.12
Garlic bread: RM4.11
Butter sugar bread: RM4.12
Red bean bread: RM4.52

Do you have membership card?
0 = NO
1 = YES
Enter number: 0

Quantity of chocolate bread: 3
Quantity of garlic bread: 4
Quantity of butter sugar bread: 2
Quantity of red bean bread: 6

Price to be paid: RM70.16

Amount received: RM100
Change         : RM29.84
Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number: 1
Which following of service do you like?
1.Bread
Price Calculation for Bread
Bill Payment

2.Cake
Calculation for mass of ingredients to make cake for 1 month
```

```
3.Rice
Calculate the yield.
Calculate the next harvest amount.
Arranging the inventory.

4.Dessert
Finance calculation and statement of dessert shop

5.Fruits
Purchasing seeds application

0.Exit
Please enter a number: 2
Hi,Welcome to DANIEL FIKREY store! Alan Tan
*    *    *   * * *  *        * *       *       * * * * *   * * *
*    *    *   *      *      *        *     *    *   *   *   *
*   * *   *   * *    *     *       *         *  *   *   *   * *
 * *   * *    *      *      *       *     *    *   *   *   *
  *     *     * * *  * * *    * *       *       *   *   *   * * *

                     *         *        *
                    *   *     *   *    *   *
                ********************************
                *                              *
                *     *   *   *   *   *   *     *
                * * *   *   *   *   *   *   * * *
                *                              *
                ********************************
                * * * * * * * * * * * * * * * * *
                ********************************

This Programme Will Calculate The Mass or Number of Ingredients for 1 Month

Please enter the number of sale of the cake day by day in one week :
Sales : 9
Sales : 9
Sales : 9
Sales : 9
Sales : 9
Sales : 9
Sales : 9

**************************************************
*                                                *
*     The total of cake sale for one week is 63    *
* The average of number cake sale for one day is 9 *
*                                                *
**************************************************

Please enter the number of your ingredients : 5

**************************************************

Please enter your ingredients :
* sugar
* flour
* chocolate
* ovallete
* vanilla

**************************************************
```

```
Please enter the mass of each ingredient to make one cake :
sugar : 0.1
flour : 0.2
chocolate : 0.3
ovallete : 0.1
vanilla : 0.2

**************************************************

Please enter the mass of remaining stock of each ingredients :
sugar : 1
flour : 2
chocolate : 1
ovallete : 1
vanilla : 1

*************************
      The results
 sugar : 26.0 kg
 flour : 52.0 kg
 chocolate : 80.0 kg
 ovallete : 26.0 kg
 vanilla : 53.0 kg
*************************

Do you want to add more the ingredient???
If you want to add more the amount of the ingredient , please enter 1
If you want to stay with the amount of the ingredient, please enter 0
1

sugar : 26.0 kg
Enter new mass or number of sugar in kg = 25

flour : 52.0 kg
Enter new mass or number of flour in kg = 20

chocolate : 80.0 kg
Enter new mass or number of chocolate in kg = 30

ovallete : 26.0 kg
Enter new mass or number of ovallete in kg = 2

vanilla : 53.0 kg
Enter new mass or number of vanilla in kg = 10


*************************
The new mass of ingredients :
sugar = 25.0 kg
flour = 20.0 kg
chocolate = 30.0 kg
ovallete = 2.0 kg
vanilla = 10.0 kg

*************************

Thank you for using our service

Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number: 1
Which following of service do you like?
1.Bread
Price Calculation for Bread
Bill Payment
```

```
2.Cake
Calculation for mass of ingredients to make cake for 1 month

3.Rice
Calculate the yield.
Calculate the next harvest amount.
Arranging the inventory.

4.Dessert
Finance calculation and statement of dessert shop

5.Fruits
Purchasing seeds application

0.Exit
Please enter a number: 3
Hi,Welcome to HO WAI KIAT store! Alan Tan
Hi,what service do you need?
1:Calculate the yield.
2:Calculate the next harvest amount.
3:Arranging the inventory.
0:Exit.
Please enter the number : 1

Please enter the weight in sample unit(kg/10m2)
Enter the weight of Black rice:
11
Enter the weight of Jasmine rice:
22
Enter the weight of Brown rice:
33
Enter the weight of Red Cargo rice:
44
Enter the weight of Sticky rice:
55
Enter the weight of Long grain white rice:
66
Please enter the area of the farm of each type of rice (hectare)
Enter the area of Black rice farm:
1
Enter the area of Jasmine rice farm:
2
Enter the area of Brown rice farm:
3
Enter the area of Red Cargo rice farm:
4
Enter the area of Sticky rice farm:
5
Enter the area of Long grain white rice farm:
6

***********************************************
*The formula of kg/ha is kg/10m2 x 1000 = kg/ha*
*The formula of kg is kg/ha x hectare = kg     *
*The yield of each type of rice in kg          *
***********************************************

Black rice :11000.00kg
Jasmine rice :44000.00kg
Brown rice :99000.00kg
Red Cargo rice :176000.00kg
Sticky rice :275000.00kg
Long grain white rice :396000.00kg
```

```
*********************************************
*The formula of 1 kg/ha is 2.2lbs/ha         *
*The formula of lbs is lbs/ha x hectare = lbs*
*The yield of each type of rice in lbs       *
*********************************************

Black rice :24200.00lbs
Jasmine rice :96800.00lbs
Brown rice :217800.00lbs
Red Cargo rice :387200.00lbs
Sticky rice :605000.00lbs
Long grain white rice :871200.00lbs

Hi,what service do you need?
1:Calculate the yield.
2:Calculate the next harvest amount.
3:Arranging the inventory.
0:Exit.
Please enter the number : 2

Please enter the current yield of Black rice(kg/ha)
11
Please enter the current yield of Jasmine rice(kg/ha)
22
Please enter the current yield of Brown rice(kg/ha)
33
Please enter the current yield of Red Cargo rice(kg/ha)
44
Please enter the current yield of Sticky rice(kg/ha)
55
Please enter the current yield of Long grain white rice(kg/ha)
66
Please select the percentage by following type of factors
Climate
Spring: +10%
Summer: +10%
Autumn: -10%
Winter: +5%
Enter the percentage(%)
10
Government policy
Tax: -5%
Allowance: +10%
Enter the percentage(%)
-10
Human Resources
Enough: +10%
Lack: -10%
Enter the percentage(%)
-10
Cost of production
Increase: -5%
Decrease: +5%
Enter the percentage(%)
5
You are something wrong.

Hi,what service do you need?
1:Calculate the yield.
2:Calculate the next harvest amount.
3:Arranging the inventory.
0:Exit.
Please enter the number : 0

ok,you're exit.
Thank you by using our service.
Goodbye!
```

```
Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number: 1
Which following of service do you like?
1.Bread
Price Calculation for Bread
Bill Payment

2.Cake
Calculation for mass of ingredients to make cake for 1 month

3.Rice
Calculate the yield.
Calculate the next harvest amount.
Arranging the inventory.

4.Dessert
Finance calculation and statement of dessert shop

5.Fruits
Purchasing seeds application

0.Exit
Please enter a number: 4
Hi,Welcome to KOR JUN XIANG application! Alan Tan
Enter how many types of desserts you sell in your store: 4
Enter the 4 type of desserts :
Chocolate cake
Lemon meringue pie
Rainbow macaron set
Raspberry puff

Price of the Chocolate cake : RM299
Cost of ingredients of the Chocolate cake : RM220
Quantity of the Chocolate cake sold : 85

Price of the Lemon meringue pie : RM30
Cost of ingredients of the Lemon meringue pie : RM22
Quantity of the Lemon meringue pie sold : 164

Price of the Rainbow macaron set : RM50
Cost of ingredients of the Rainbow macaron set : RM35
Quantity of the Rainbow macaron set sold : 129

Price of the Raspberry puff : RM14
Cost of ingredients of the Raspberry puff : RM7
Quantity of the Raspberry puff sold : 238

Have you hired staff? (Yes or No)
no
Enter the rent payment per month : RM900
Enter the utilities fee for this month : RM650
Enter the transport fee for this month : RM370
```

```
Desserts detail:
1. Chocolate cake       Price: RM299.0  Quantity Sold: 85       Cost: RM220.0   Gross Profit: RM79.0
2. Lemon meringue pie   Price: RM30.0   Quantity Sold: 164      Cost: RM22.0    Gross Profit: RM8.0
3. Rainbow macaron set  Price: RM50.0   Quantity Sold: 129      Cost: RM35.0    Gross Profit: RM15.0
4. Raspberry puff       Price: RM14.0   Quantity Sold: 238      Cost: RM7.0     Gross Profit: RM7.0

         FINANCIAL STATEMENT
        ************************************************************************
         TOTAL SALES               = RM40117.0
         TOTAL COST OF INGREDIENTS = RM28489.0
        ____________________________________________
         TOTAL GROSS PROFIT        = RM11628.0
         TOTAL OTHER COST       = RM1920.0
        ____________________________________________
         NET INCOME             = RM9708.0
        ************************************************************************

"You have a decent income and can keep your business going."


Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number: 1
Which following of service do you like?
1.Bread
Price Calculation for Bread
Bill Payment

2.Cake
Calculation for mass of ingredients to make cake for 1 month

3.Rice
Calculate the yield.
Calculate the next harvest amount.
Arranging the inventory.

4.Dessert
Finance calculation and statement of dessert shop

5.Fruits
Purchasing seeds application

0.Exit
Please enter a number: 5
Hi,Welcome to NURLAILATUL AQILAH store! Alan Tan
Please enter your name : Alan
Please enter your state : Selangor
Please enter your gender : Male
Please enter your age : 19

Welcome to the Green Eagle Seed Application,Alan

You have a notification from the application !
Hello Alan
Feel free to check the seeds we offer !
* * * * * * * * * * * *
MENU
Type of seed      * Price (200g) * Price (500g)
************************************************************
Apple             *    RM60      *   RM110
Premium Apple     *    RM70      *   RM120
Strawberry        *    RM80      *   RM150
Premium Strawberry*    RM90      *   RM160
Grape             *    RM50      *   RM100
Premium Grape     *    RM60      *   RM110
Orange            *    RM45      *    RM90
Premium Orange    *    RM55      *   RM100
************************************************************
```

```
Please enter the type of seed you want to buy : Apple
Choose either 200g or 500g : 500
Enter the price of seed you want to buy : RM80
How many bag of seed you want to buy ? : 2
* * * * * * * *
Please enter the second type of seed you want : Orange
Choose either 200g or 500g : 200
Enter the price of seed you want to buy : RM150
How many bag of seed you want to buy ? : 3

* * * * * * * *
Enter the number of seed types you want to buy: 2
Enter the 1 name :
Apple
Enter the 2 name :
Orange
The seeds you want to buy are :
Apple
Orange
The total price of your products : RM610
* * * * * * * *


* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * * *
These are only for users' information.
The total price of 200g seeds are : RM510
The most expensive seed's price is : RM90
* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * * *

* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * * *
The total price of 500g seeds are : RM940
The most expensive seed's price is : RM160
* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * * *
Are you a member ?
Enter 'Y' if you are a member.
Enter 'N' if you are not a member.
N
Do you want to be a member ?
Enter 'A' if you want to be a member.
Enter 'B' if you do not want to be a member.
A
Your member's name is Alan

If you are a member, you will get benefits like down below :
You will get a RM5 off voucher for next purchase for minimum spending RM100.
If you are spending RM300 and above, you will get a RM10 off for next purchase, a free tool and free delivery.

You can choose the method of paying.
Enter [1] for online banking.
Enter [2] for cash on delivery.
Please enter your choice : 3
INVALID METHOD
Please enter your choice again : 1
You are choosing online banking as a payment method.

* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * * *
You will get 25% off as a new member.
You have to pay RM50 per year to keep being a member.
You get RM152 off.
You have to pay RM5 for delivery cost.
The final amount you have to pay is RM513
* * * * * * * * * * * * * * * * * * *  *  * *  * * * * * * * * *
```

```
Do you want to continue to other food or drink?
1.Yes 2.No
Please enter a number: 2
OK,thank you for using our service,please come again!!!
```