



**UNIVERSITI UTARA MALAYSIA**

**FIRST SEMESTER SESSION 2021/2022 (A211)**

**STIA1113 PROGRAMMING 1**

**KUMPULAN C**

**GROUP ASSIGNMENT**

**ASSIGNMENT 1**

**TOPIC: BEAUTY**

**SUB TOPIC: MAKEUP**

**LECTURER NAME:**

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**PREPARED BY:**

**ANG KAI ZI**

**MATRIC NUMBER: 286043**

## **IDENTIFY THE PROBLEM:**

“Princess” is a new cosmetic shop. In some Western countries, cosmetics are commonly taken to mean only makeup products. The FDA defines a cosmetic as a product (excluding pure soap) intended to be applied to the human body for cleansing, beautifying, promoting attractiveness, or altering the appearance without affecting the body’s structure or functions. “Princess” are specialty retailers that sell cosmetics, hair care products and beauty tools primarily to salons, licensed professionals and consumers. There are a wide range of beauty products that you can sell some of them include makeup products such as eye shadow, mascara, foundation, lipstick, hair care products such as shampoo, hair oils, hair relaxer, hair treatment, skincare product such as soaps, creams and perfumes, personal care items like body lotions, bath oils, hair products like wigs, weaves and braids, hair accessories like headbands and wraps, nail care kits such as buffer, nail file and nail polish, kids accessories such as beads and hair clips and fragrances such as perfumes and colognes. “Princess” as a new cosmetic should have a complete inventory management to manage all the product information. The inventory management system should be fast, effortless and time saving. It can bring convenient to the shopper. “Princess” need a solution to count the quantity of the product in stock correctly.

## **UNDERSTAND THE PROBLEM:**

Inventory is the raw materials used to produce goods as well as the goods that are available for sale. Inventory management is the function of understanding the stock mix of a company and the different demands on that stock. The demands are influenced by both external and internal factors and are balanced by the creation of purchase order requests to keep supplies at a reasonable or prescribed level. Inventory management is important for every other business enterprise. Now, we should find a solution to count the quantity of the product in stock correctly and precisely. The solution should be fast, effortless and time saving.

## **IDENTIFY THE ALTERNATIVE WAYS:**

1. Storekeeper should count the quantity in stock one-by-one and write it in book.
2. Use a stock control system

## **THE BEST WAY:**

First alternative will waste a lot of time to count the quantity. The information also should be written in a book. It is also difficult for the workers to check the stock in history of such a product. Books are easily damaged. If the worker wants to record the information such as Good Received Note and Purchase Return, they should use the different books to record it.

Second alternative is the best solution to count the quantity. The information can be kept in the system and will not be lost. Worker can check information of the product easily and the system can show the information clearly such as Item Code, Item Name, Category, Supplier, Unit of Measurement (UOM), Unit Cost, Unit Price, Balance Quantity of the product and more information. Worker can update the quantity in the system manually when a product new arrived in Good Received Note part in the system. It will record the latest quantity when

the worker keys in how many quantities of the product come into the shop and show the total quantity of the product they have now automatically. The workers also can check stock in shop of a product. Other than that, worker also can do the purchase return in Purchase Return part by using the system.

### INSTRUCTION:

1. When the worker enters the system, it will show “WELCOME TO FAST COUNT”
2. Worker can check the product information by inserting the barcode of the product in Item part.
3. After enter the barcode, system will automatically show the information such as Item Code, Item Name, Category, Supplier, Unit of Measurement (UOM), Unit Cost, Unit Price, Balance Quantity of the product and more information.
4. Worker should update the information in the system manually when a product new arrived.
5. Worker should key in information of the supplier such as document number, supplier code and name, date, barcode of the product and quantity of the product that is new coming to shop in Good Received Note part.
6. To return the product which had problem, worker also need to key in the information in Purchase Return part.
7. At the same time, system will show “THE INFORMATION WAS RECORDED SUCCESSFULLY”.
8. To return the product, also should key in the information in return part.
9. Then, the quantity will be deducted automatically by system.
10. After the worker finishes to key in the quantity and save the information, system will automatically count the latest quantity of the product and show the report to them and latest current quantity of the product to the worker in Item part.

### Example:

100 lipsticks and 50 toners just arrived in the store.

Product	Current stock	New coming	Calculation	New Current Stock
Lipstick	20	100	$20 + 100 = 120$	120
Toner	10	50	$10 + 50 = 60$	60

### Item information:

Item code: 10010100 Item Name: Perfume Lipstick Colour: Neon Red Category: Lipstick Supplier: Princess Production	Item code: 10020150 Item Name: Perfume Toner Category: Toner Supplier: Princess Production UOM: BTL
---	---

UOM: PCS Unit Cost: Unit Price: Balance Quantity: 20	Unit Cost: Unit Price: Balance Quantity: 10
---	---

### Stock in:

Document Number: **DO100124**

Supplier code: **PP5566**

Supplier: **Princess Production**

Date: **12/12/2021**

Barcode	Name	Quantity	Unit cost
<b>10010100</b>	Perfume Lipstick	<b>100</b>	
<b>10020150</b>	Perfume Toner	<b>50</b>	

Press Enter, the information will be saved.

### Purchase Return:

Document Number: **PR100056**

Supplier code: **PP5566**

Supplier: **Princess Production**

Date: **12/12/2021**

Barcode	Name	Quantity	Reason
<b>10010100</b>	Perfume Lipstick	<b>8</b>	<b>Damaged Packaging</b>
<b>10020150</b>	Perfume Toner	<b>2</b>	<b>Broken Bottle</b>

Press Enter, the information will be saved.

**Green** – Key in

### Latest Item Information:

Item code: 10010100 Item Name: Perfume Lipstick Colour: Neon Red Category: Lipstick Supplier: Princess Production UOM: PCS Unit Cost: Unit Price: Balance Quantity: <b>112</b>	Item code: 10020150 Item Name: Perfume Toner Category: Toner Supplier: Princess Production UOM: BTL Unit Cost: Unit Price: Balance Quantity: <b>55</b>
--	---

## ALGORITHM

### Pseudocode:

Start

Input username, date1, date2, suppliername1, suppliername2, suppliercode1, suppliercode2, documentnumber, documentnumber2, reason, password, quantity1, quantity2, barcode1, barcode2, barcode3, barcode4, barcode5, bq1 = 20

Output "~WELCOME TO FAST COUNT~"

Output "Please enter your username and password."

Output "Username: "

Input Username

Output "Password: "

Input Password

Output "Login Successfully"

Output "Username: ", username

Output "Item"

Output "Item Barcode: "

Input barcode1

Output "Item Name: Perfume Lipstick"

Output "Category: Lipstick"

Output "Colour: Neon Red"

Output "Supplier: Princess Production"

Output "UOM: PCS"

Output "Unit Cost:"

Output "Unit Price: RM120"

Output "Balance Quantity: 20"

Output "Good Received Note"

Output "Document Number"

Input documentnumber1

Output "Supplier Code"

Input suppliercode1

Output "Supplier Name: "

Input suppliername1

Output "Date: "

Input date1

Output "Item Barcode: "

Input barcode2

Output "Item Name: Perfume Lipstick"

Output "Quantity: "

Input quantity1

Output "Information has been saved. Here is your report."

Output "Document Number", documentnumber

Output "Supplier Code", suppliercode1

Output "Supplier Name: ", suppliername1

Output "Date: ", date1

Output "Item Barcode: ", barcode2

Output "Item Name: Perfume Lipstick"

Output "Quantity: ", quantity1

Output "Purchase Return"

Output "Document Number: "

Input documentnumber2

Output "Supplier Code: "

Input suppliercode2

Output "Supplier Name: "

Input suppliername2

Output "Date: "

Input date2

Output "Item Barcode: "

Input barcode3

Output "Item Name: Perfume Lipstick"

Output "Quantity: "

Input quantity2

Output "Reason: "

Input reason

Output "Information has been saved. Here is your report."

Output "Document Number: ", documentnumber2

Output "Supplier Code: ", suppliercode2

Output "Supplier Name: ", suppliername2

Output "Date: ", date2

Output "Item Barcode: ", barcode3

Output "Item Name: Perfume Lipstick"

Output "Quantity: ", quantity2

Output "Reason: ", reason

Calculate CurrentQuantity = bq1 + q1 - q2

Output "Item"

Output "Item Barcode: "

Input barcode4

Output "Item Name: Perfume Lipstick"

Output "Category: Lipstick"

Output "Colour: Neon Red"

Output "Supplier: Princess Production"

Output "UOM: PCS"

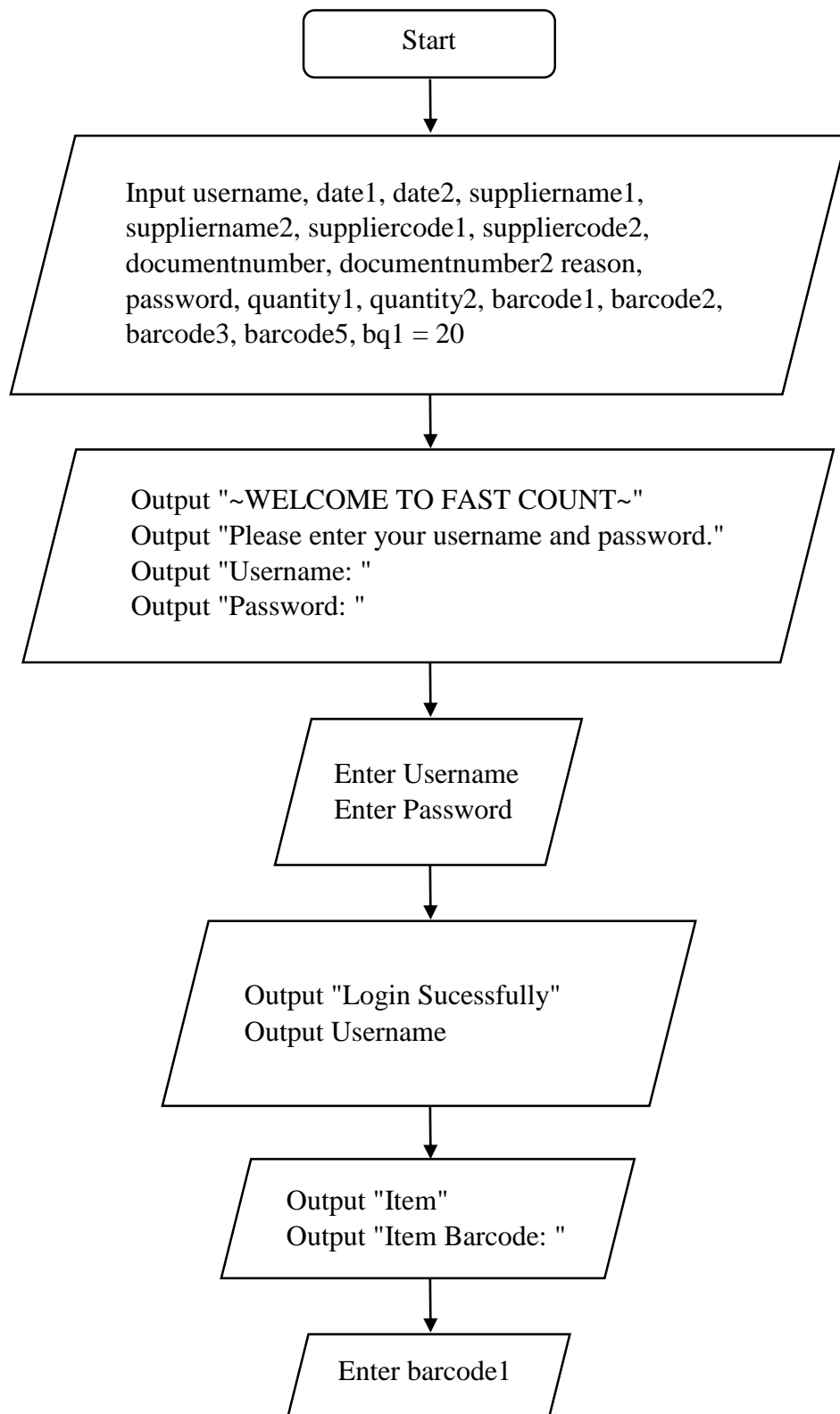
Output "Unit Cost:"

Output "Unit Price: RM120"

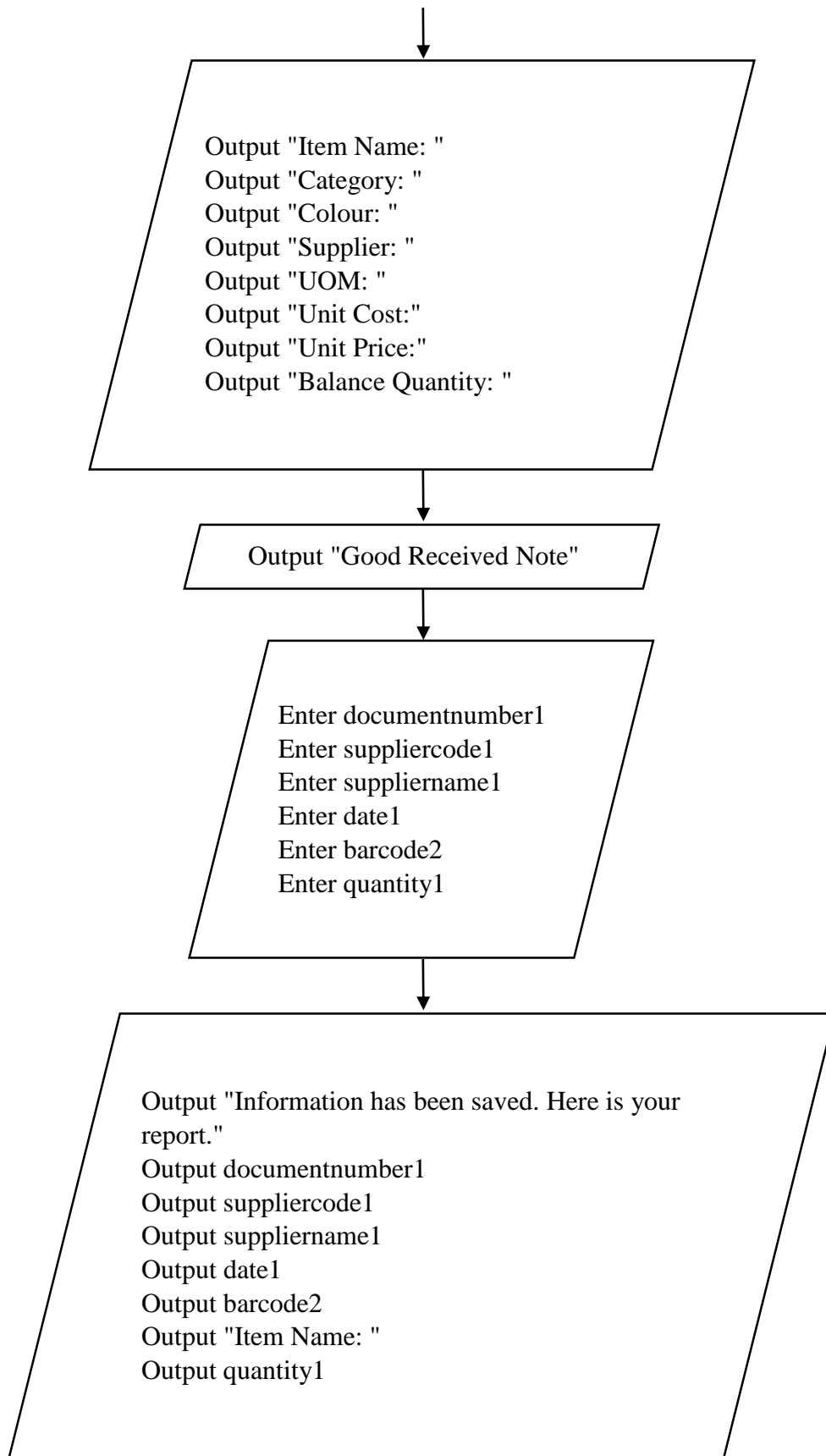
Output "Balance Quantity: "

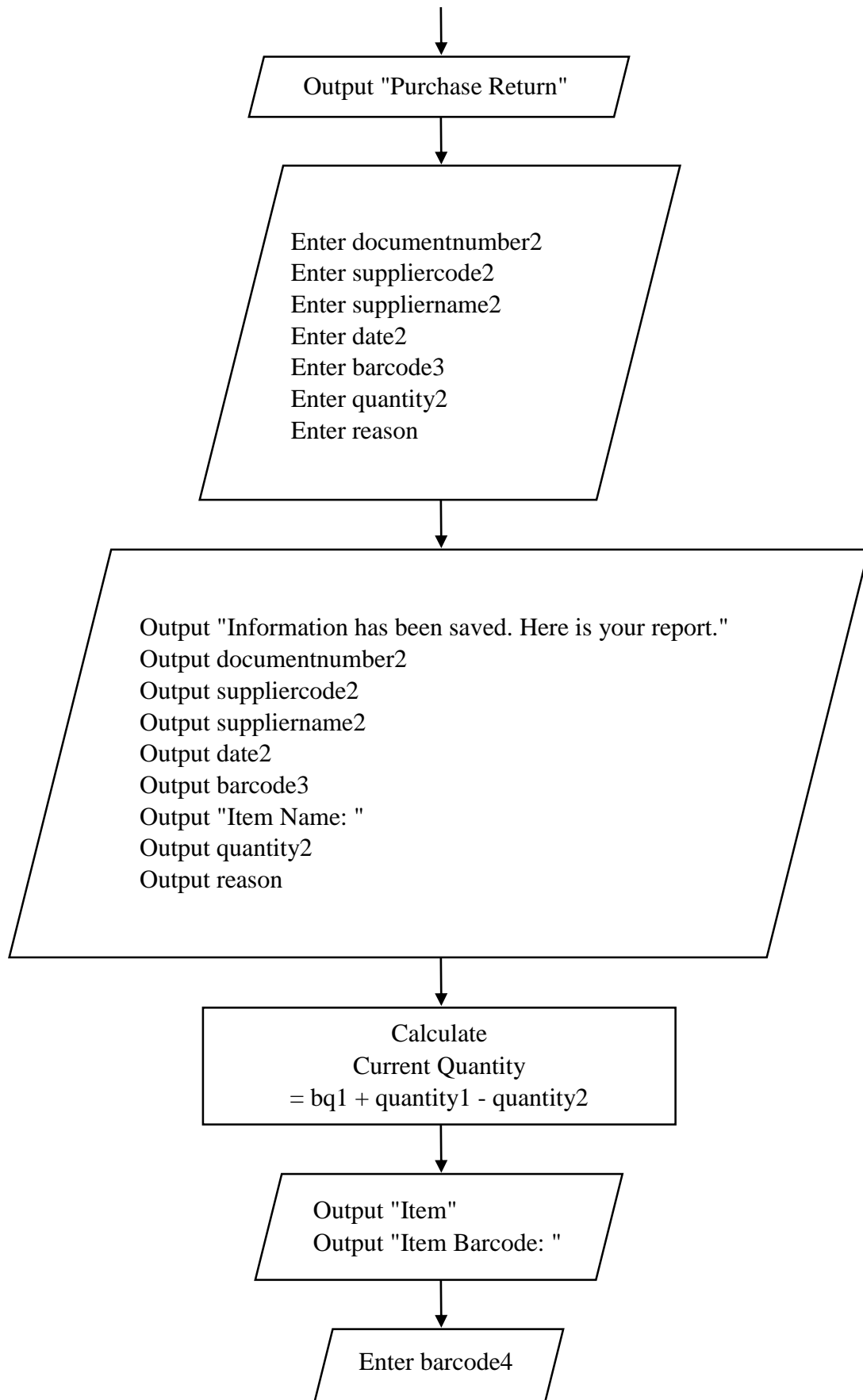
Stop

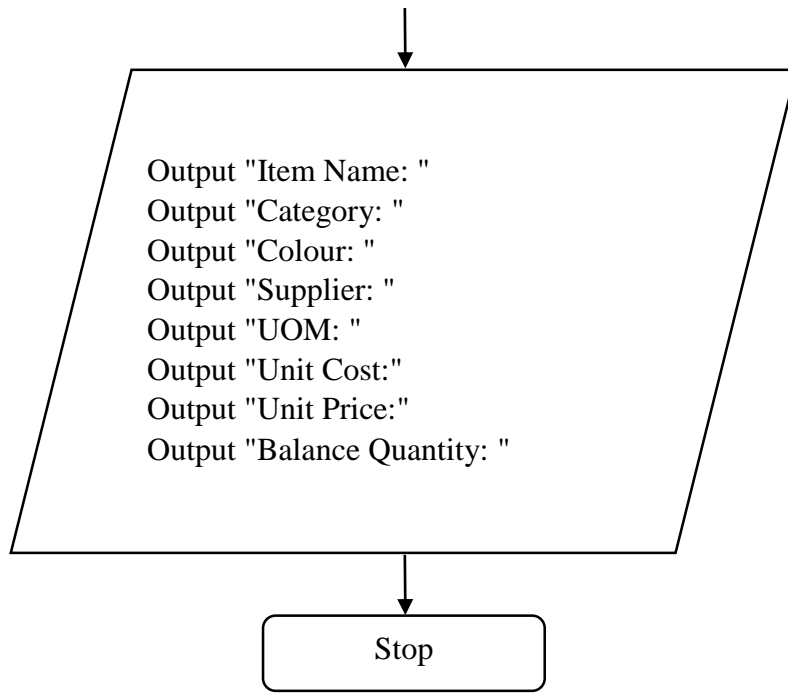
### Flowchart:











## CODING:

```
package assignment1;
import java.util.Scanner;
public class Assignment1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String un, date1, date2, suppliername1, suppliername2,
suppliercode1, suppliercode2, dn, dn2, reason;
        int pw, q1, q2, barcode1, barcode2, barcode3, barcode4;
        Scanner scan = new Scanner (System.in);

        int bq1 = 20;
        q2 = 10;

        System.out.println("~WELCOME TO FAST COUNT~");
        System.out.println("Please enter your username and password.");
        System.out.println("Username: ");
        un = scan.nextLine();
        System.out.println("Password: ");
        pw = scan.nextInt();
        System.out.println("Login Sucessfully");

        System.out.println("User: " + un);

        System.out.println("\n\"Item\"");
        System.out.println("Item Barcode: ");
        barcode1 = scan.nextInt();

        System.out.println("Item Name: Perfume Lipstick");
        // barcode = 20020200
        System.out.println("Category: Lipstick");
        System.out.println("Colour: Neon Red");
        System.out.println("Supplier: Princess Production");
        System.out.println("UOM: PCS");
        System.out.println("Unit Cost:");
        System.out.println("Unit Price: RM120");
        System.out.println("Balance Quantity: 20"); //bq1

        System.out.println("\n\"Good Received Note\"");
        System.out.println("Document Number: "); //dn
        dn = scan.next();
        System.out.println("Supplier Code: ");
        suppliercode1 = scan.next();
        System.out.println("Supplier Name: ");
        suppliername1 = scan.next();
        System.out.println("Date: ");
        date1 = scan.next();
        System.out.println("Item Barcode: ");
        barcode2 = scan.nextInt();
        System.out.println("Item Name: Perfume Lipstick");
        System.out.println("Quantity: ");
        q1 = scan.nextInt();

        System.out.println("\nInformation has been saved. Here is your
report.");
```

```

System.out.println("\nDocument Number: " + dn); //dn
System.out.println("Supplier Code: " + suppliercode1);
System.out.println("Supplier Name: " + suppliername1);
System.out.println("Date: " + date1);
System.out.println("Item Barcode: " + barcode2);
System.out.println("Item Name: Perfume Lipstick");
System.out.println("Quantity: " + q1);

System.out.println("\nPurchase Return");
System.out.println("Document Number: "); //dn2
dn2 = scan.next();
System.out.println("Supplier Code: ");
suppliercode2 = scan.next();
System.out.println("Supplier Name: ");
suppliername2 = scan.next();
System.out.println("Date: ");
date2 = scan.next();
System.out.println("Item Barcode: ");
barcode3 = scan.nextInt();
System.out.println("Item Name: Perfume Lipstick");
System.out.println("Quantity: ");
q2 = scan.nextInt();
System.out.println("Reason: ");
reason = scan.next();

System.out.println("\nInformation has been saved. Here is your
report.");

System.out.println("\nDocument Number: " + dn2); //dn2
System.out.println("Supplier Code: " + suppliercode2);
System.out.println("Supplier Name: " + suppliername2);
System.out.println("Date: " + date2);
System.out.println("Item Barcode: " + barcode3);
System.out.println("Item Name: Perfume Lipstick");
System.out.println("Quantity: " + q2);
System.out.println("Reason: " + reason);

int CurrentQuantity = bq1 + q1 - q2;

//Current stock
System.out.println("\nItem");
System.out.println("Item Barcode: ");
barcode4 = scan.nextInt();

System.out.println("Item Name: Perfume Lipstick"); // barcode =
20020200

System.out.println("Category: Lipstick");
System.out.println("Colour: Neon Red");
System.out.println("Supplier: Princess Production");
System.out.println("UOM: PCS");
System.out.println("Unit Cost:");
System.out.println("Unit Price: RM120");
System.out.println("Balance Quantity: " + CurrentQuantity);
}
}

```

## OUTPUT:

~WELCOME TO FAST COUNT~

Please enter your username and password.

Username:

Ang

Password:

123456

Login Sucessfully

User: Ang

"Item"

Item Barcode:

20020200

Item Name: Perfume Lipstick

Category: Lipstick

Colour: Neon Red

Supplier: Princess Production

UOM: PCS

Unit Cost:

Unit Price: RM120

Balance Quantity: 20

"Good Received Note"

Document Number:

D0100124

Supplier Code:

PP5566

Supplier Name:

PrincessProduction

Date:

12/12/2001

Item Barcode:

20020200

Item Name: Perfume Lipstick

Quantity:

100

Information has been saved. Here is your report.

Document Number: D0100124

Supplier Code: PP5566

Supplier Name: PrincessProduction

Date: 12/12/2001

Item Barcode: 20020200

Item Name: Perfume Lipstick

Quantity: 100

"Purchase Return"

Document Number:

PR100056

Supplier Code:

PP5566

Supplier Name:

PrincessProduction

Date:

12/12/2021

Item Barcode:

20020200

Item Name: Perfume Lipstick

Quantity:

8

Reason:

PackagingDamaged

Information has been saved. Here is your report.

Document Number: PR100056

Supplier Code: PP5566

Supplier Name: PrincessProduction

Date: 12/12/2021

Item Barcode: 20020200

Item Name: Perfume Lipstick

Quantity: 8

Reason: PackagingDamaged

"Item"

Item Barcode:

20020200

Item Name: Perfume Lipstick

Category: Lipstick

Colour: Neon Red

Supplier: Princess Production

UOM: PCS

Unit Cost:

Unit Price: 120

Balance Quantity: 112



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**STIA1113 PROGRAMMING 1**

**KUMPULAN C**

**GROUP ASSIGNMENT**

**ASSIGNMENT 1**

**TOPIC: BEAUTY**

**SUB TOPIC: JEWELLERY**

**LECTURER NAME:**

**PROF. MADYA DR. AZMAN B YASIN**

**PREPARED BY:**

**SERA AFIQAH BINTI MUHAMAD YAHYA**

**MATRIC NUMBER: 286197**



**Identify the Problem:**

Expensive gold price that include wage and how to buy it in pandemic.

**Understand the Problem:**

Gold is a human asset for their future but the price always keep changing for time to time. All customer that what to collect a gold jewellery have a different background for example from their financial. It is hard for them to collect some of their favourite design if the prices will keep increasing also because of the wage cost from the shop. Nowadays, because of the pandemic people also need to stay at home as a precautions and cannot easily go out for just buy a gold at the shop.

**Alternative Ways to Solve the Problem:**

1. Customer can still go to gold jewellery shop for getting their favourite design and the shop can give a service without any wages to the customer.
2. Make a website for the customer to buy a gold jewellery easily without any wages when they buy over the gram limit but still on their budget and they can still stay at home.

**Select the Best Way to Solve the Problem for the Alternative Solutions List:**

I will select the second alternative because I think nowadays it is more reasonable and easily for customer to buy a gold jewellery via website. This is because of the pandemic so they can still shopping even from home. When they buy from the website, shop not going to be crowded and become a new cluster also they not spend a long time in the shop to find a jewellery. From the website they can select their own budgets and also choose how much gram they want. If they buy over the gram limit they also do not to pay the wage but they need to pay for the delivery, packaging and insurance cost. It is shows that if they buy online from the website they also can get a reasonable prices and time to pick and add to their cart before pay.

**Instructions that Enable to Solve the Problem Using Selected Solution:**

1. Customer need to go to the shop website for choosing and buying their selected items.
2. They need to fill in their data like name, e-mail, address, phone number and bank.
3. They can select their own budget and choose how much gram they want at filter section.
4. After they choose their budget and gram, they can start to find the jewellery for example a necklace, bracelet, ring or ear ring that suit their budget.
5. Then they can add to cart the item they choose.
5. If they buy more than 5 gram gold jewellery they just pay for the gold without any wages.
6. After the payment successful, the shop will e-mail their customer the invoice and they will send **"Thank you for your order"**.

### Evaluate the Solution:

Regarding from this solution, gold jewellery shop should build a website to make it easier for customers to shop. They also need to put a filter at the upper of the website to help their customers to custom their own budget and gram that they want. Other than that, customers also do not have to pay a wage if they buy more than 5 gram from gold jewellery shop official website.

Example:

Gold price:	RM240/g
Wage cost:	RM250
Delivery cost:	RM30
Packaging cost:	RM15
Insurance:	RM50

Formula:

Type of purchasing	Formula	Total Payment
1. Buy less than 5 gram	$\text{Ring } 1.82\text{g} + \text{Ear ring } 1.2\text{g} = 3.02\text{g}$ $\text{Gold price} * \text{gold gram}$ $(\text{RM}240 * 1.82\text{g}) + (\text{RM}240 * 1.2\text{g})$ $\text{RM } 436.8 + \text{RM } 288 = \text{RM } 724.8$ Wage: RM 250 Delivery: RM 30 Packaging: RM 15 Insurance: RM50 $\text{Total gold jewellery} + \text{wage} + \text{delivery} + \text{packaging} + \text{insurance}$ $\text{RM } 724.8 + \text{RM } 250 + \text{RM } 30 + \text{RM } 15 + \text{RM } 50 = \text{RM } 1069.8$	RM 1069.8

2. Buy more than 5 gram	<p>Necklace 3.67g + Locket 2.87g + Bracelet 2.7g = 9.24g</p> <p>Gold price * gold gram</p> <p>(RM 240 * 3.67g) + (RM 240 * 2.87g) + (RM 240 * 2.7g)</p> <p>RM 880.8 + RM 688.8 + RM 648 = RM 2217.6</p> <p>No wage</p> <p>Delivery: RM 30</p> <p>Packaging: RM 15</p> <p>Insurance: RM 50</p> <p>Total gold jewellery + delivery + packaging + insurance</p> <p>RM 2217.6 + RM 30 + RM 15 + RM 50 = RM 2312.6</p>	RM 2312.6
-------------------------	---	-----------

### Algorithm:

1. Input your name, e-mail, address, phone number
2. Display your budget range and gram
3. Output gold jewellery list
4. Calculate gold jewellery
5. Gold price \* gold gram
6. Calculate total payment for buy less than 5 gram
7. Total gold jewellery + wage + delivery + packaging + insurance
8. Gold price \* gold gram
9. Calculate total payment for buy more than 5 gram
10. Total gold jewellery + delivery + packaging + insurance
11. Display wage, delivery, packaging and insurance
12. Output total payment

### Pseudocode:

Start

Read your name, e-mail, address and phone number

Read your budget range and gram

Print gold jewellery list

Calculate gold jewellery

$\text{Gold price} * \text{gold gram}$

Calculate total payment for buy less than 5 gram

$\text{Total gold jewellery} + \text{wage} + \text{delivery} + \text{packaging} + \text{insurance}$

Calculate total payment for buy more than 5 gram

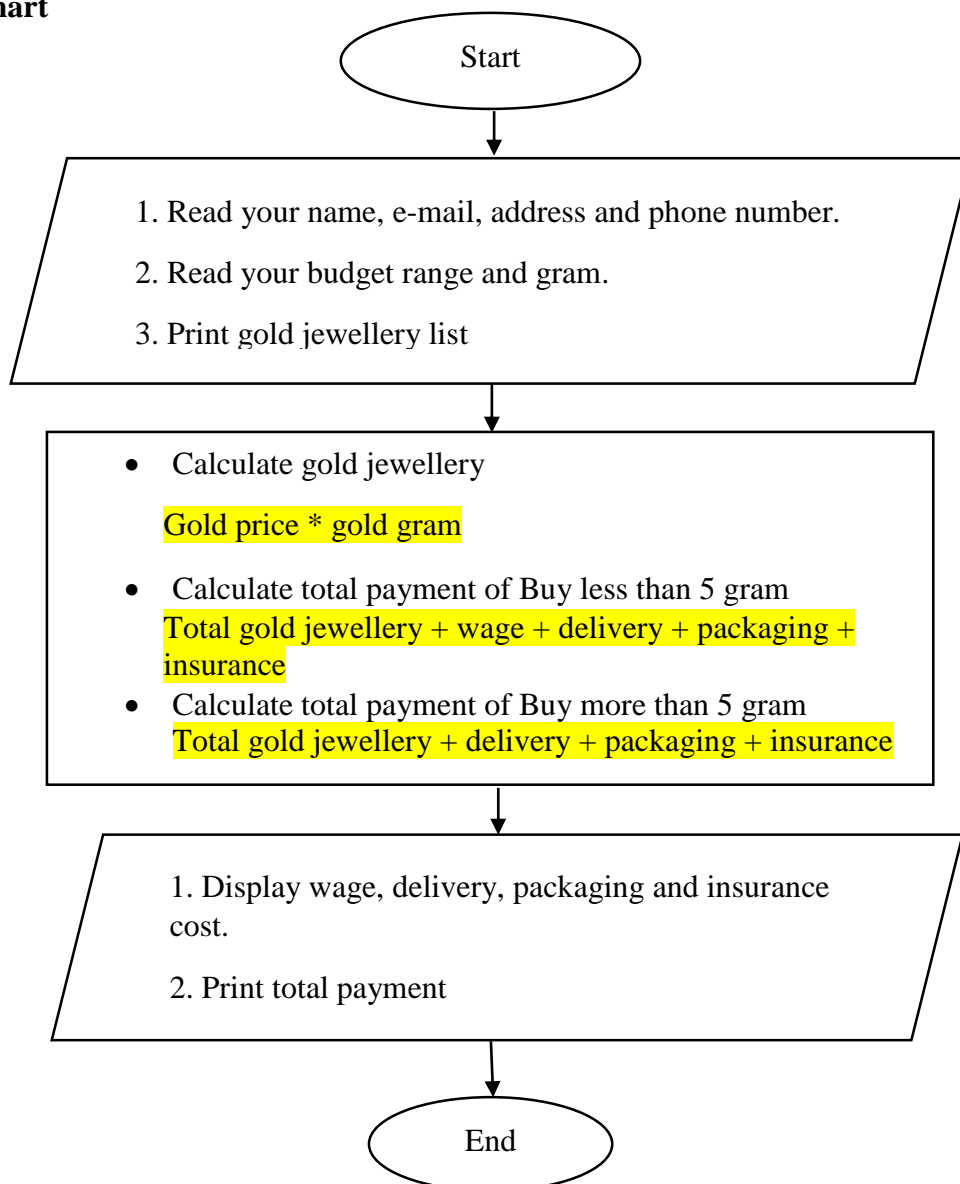
$\text{Total gold jewellery} + \text{delivery} + \text{packaging} + \text{insurance}$

Display wage, delivery, packaging and insurance cost

Print total payment

End

### Flow Chart



**Coding:**

```
package Beauty;
```

```
import java.util.Scanner;
```

```
public class Jewellery {
```

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

```
        // TODO Auto-generated method stub
```

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

```
        int gold = 240;
```

```
        int budget;
```

```
        int wage = 250;
```

```
        int delivery = 30;
```

```
        int packaging = 15;
```

```
        int insurance = 50;
```

```
        double gram;
```

```
        double ring = 1.82;
```

```
        double earring = 1.2;
```

```
        double necklace = 3.67;
```

```
        double locket = 2.87;
```

```
        double bracelet = 2.7;
```

```
        double total;
```

```
        double total2;
```

```
        double total3;
```

```
        double total4;
```

```
        System.out.println("==WELCOME TO GOLD JEWELLERY SHOP==\n");
```

```
System.out.println("Enter your name: ");
```

```
String name = sc.nextLine();
```

```
System.out.println("Enter your e-mail: ");
```

```
String email = sc.nextLine();
```

```
System.out.println("Enter your address: ");
```

```
String address = sc.nextLine();
```

```
System.out.println("Enter your phone number: ");
```

```
String number = sc.nextLine();
```

```
System.out.println("Payment via bank: ");
```

```
String bank = sc.nextLine();
```

```
System.out.println("\n");
```

```
System.out.println("Ring: 1.82g\n" + "Ear Ring: 1.2g\n" + "Necklace: 3.67g\n" + "Locket:  
2.87g\n" + "Bracelet: 2.7g\n");
```

```
System.out.println("Please choose your budget range and gram.");
```

```
System.out.println("Note: Less than 5g need to pay wage cost");
```

```
System.out.println("\n");
```

```
System.out.println("Your budget range: ");
```

```
budget =sc.nextInt();
```

```
System.out.println("Your gram: ");
```

```
gram = sc.nextDouble();
```

```
System.out.println("\n");
```

```
System.out.println("Ring= 1.82g\n" + "Ear Ring= 1.2g\n");
```

```
total = (240 * 1.82) + (240 * 1.2);
```

```
System.out.println("Total gold price is RM " + total);
```

```
System.out.println("Wage:RM250\n" + "Delivery:RM30\n" + "Packaging:RM15\n" +  
"Insurance:RM50");
```

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

```
total2 = total + 250 + 30 + 15 + 50;
```

```
System.out.println("TOTAL PAYMENT: RM" + total2);
```

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

```
System.out.println("\n");
```

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

```
System.out.println("\n");
```

```
System.out.println("Your budget range: ");
```

```
budget =sc.nextInt();
```

```
System.out.println("Your gram: ");
```

```
gram = sc.nextDouble();
```

```
System.out.println("\n");
```

```
System.out.println("Necklace= 3.67g\n" + "Locket= 2.87g\n" + "Bracelet= 2.7g\n");
```

```
total3 = (240 * 3.67) + (240 * 2.87) + (240 * 2.7);
```

```
System.out.println("Total gold price is RM" + total3);
```

```
System.out.println("Delivery:RM30\n" + "Packaging:RM15\n" + "Insurance:RM50");
```

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

```
total4 = total3 + 30 + 15 + 50;
```

```
System.out.println("TOTAL PAYMENT: RM" + total4);  
System.out.println("-----");  
System.out.println("\n");  
  
System.out.println("THANK YOU FOR YOUR ORDER!");
```

```
}
```

```
}
```

**Output:**

==WELCOME TO GOLD JEWELLERY SHOP==

Enter your name:

Sera

Enter your e-mail:

sera@gmail.com

Enter your address:

205 jln molek 1

Enter your phone number:

0197320295

Payment via bank:

Maybank

Ring: 1.82g

Ear Ring: 1.2g



Necklace: 3.67g

Locket: 2.87g

Bracelet: 2.7g

Please choose your budget range and gram.

Note: Less than 5g need to pay wage cost

Your budget range:

1100

Your gram:

4

Ring= 1.82g

Ear Ring= 1.2g

Total gold price is RM 724.8

Wage:RM250

Delivery:RM30

Packaging:RM15

Insurance:RM50

-----

TOTAL PAYMENT: RM1069.8

-----

OR

Your budget range:

2500

Your gram:

10

Necklace= 3.67g

Locket= 2.87g

Bracelet= 2.7g

Total gold price is RM2217.6

Delivery:RM30

Packaging:RM15

Insurance:RM50

-----

TOTAL PAYMENT: RM2312.6

-----

THANK YOU FOR YOUR ORDER!



**UNIVERSITI UTARA MALAYSIA**

**FIRST SEMESTER SESSION 2021/2022 (A211)**

**STIA1113 PROGRAMMING 1**

**KUMPULAN C**

**GROUP ASSIGNMENT**

**ASSIGNMENT 1**

**TOPIC: BEAUTY**

**SUB TOPIC: PERFUMES**

**LECTURER NAME:**

**PROF. MADYA DR. AZMAN B YASIN**

**PREPARED BY:**

**NUR AZZYATI ADLIN BINTI MOHD NASIR**

**MATRIC NUMBER: 286330**

## 1. Identify the problem

Perfume is a mixture of fragrant essential oils or aroma compounds, fixatives and solvents, used to give the human body, animals, food, objects, and living-spaces an agreeable scent. It is usually in liquid form and used to give a pleasant scent to a person's body. The word perfume derives from the Latin *perfumare*, meaning "to smoke through". Perfumery, as the art of making perfumes, began in ancient Mesopotamia and Egypt, and was further refined by the Romans and the Arabs.

Typically, there are 5 common types of perfumes. These include *parfum*, *eau de parfum* (EDP), *eau de toilette* (EDT), *eau de cologne*, and *eau de fraiche*. The main difference between these five perfume types is their fragrance oil concentration. In general, *Eau de parfum* works great for the colder season because it is stronger in scent, heavier and oilier. Yet, you have to ensure you pick winter-friendly fragrance notes. *Eau de toilette* is ideal for the warmer seasons because of its lighter scent. However, the same as *eau de parfum*, you want to pick the right fragrance note combination. As a hack, purchase similarly scented *eau de parfum* or *eau de toilette* with an *eau de fraiche* so you can have a cheaper fragrance refreshing alternative throughout the day.

Among all the famous perfume shops, SugarBomb is included in one of them. SugarBomb conceptualized in 2015 in the United Kingdom when the founders met, where idea and direction of the company was discussed. The origin of 'SugarBomb' is derived from two different words, 'Sugar' and 'Bomb' representing the best in the perfumery. Together it signifies 'sweet fragrance that will blast the perfume industry'. SugarBomb planned to make categories of all the perfumes into men, women in EDP or EDT category, and also to other types of perfume which is *Parfum*, *Scarlet Edition* and also *Fruities Series* categories.



## 2. Understand the problem

Nowadays perfumes are widely used by people from all over the world, from different age, gender and culture. Nevertheless, customers find it difficult to make a choice of perfume to buy because they have to choose what category of perfume that they want. So, the SugarBomb online shop system needs to set up the category of perfume such as women, men, in EDT or EDP category, parfum category, scarlet edition category and fruities series category which is suitable for all people to choose.

## 3. Identify alternative ways to solve the problem

- i. Make the same perfume that can be used by men and women.
- ii. Make the categories of all the perfumes in the online shop.

## 4. Select the best way to solve the problem from the list of alternative solutions

- i. First alternative is not the best way because men and women have their own taste of perfumes. So, the perfume has to be categories in men and women and also for other types of perfume.
- ii. Second alternative is the best way because customers can choose what type of perfumes, they want that will suit their tastes. They can also buy a lot in one time, as example, if the customer is a girl, they can choose perfume from women categories and she can also buy for her husband from men categories. And also, if the customer is fruits lover, they can buy from fruities series and so on.

## 5. List instructions that enable you to solve the problem using the selected solution

- i. The customer has to log in with username and password.
- ii. The system will show 'SUGARBOMB ONLINE SHOP'.
- iii. After that, the system will show the CATEGORY OR ACCOUNT, so the customer can insert CATEGORY.
- iv. In the category space, the system will show all the type of perfume in women and men from EDP or EDT perfume, scarlet edition, fruities series with the prices.

- v. After that, customer can choose any categories that she \ he wants.
- vi. The customer needs to insert name of perfume that she \ he chooses.
- vii. After that, the system will show add to cart the perfume that already choose by customer.
- viii. The system will ask how many quantities that customer want. So, the customer needs to insert the quantity.
- ix. The system will make calculation of total price.
- x. And the customer needs to pay of the perfume and customer's change will be calculated.
- xi. Lastly, the system will display "You have made the payment for this product. Thank you and come again".

## 6. Evaluate the solution

Categories of perfumes:

Categories
Women EDP / EDT
Men EDP / EDT
Parfum
Scarlet Edition
Fruity Series

Types of perfume in Women's Category:

Name	Price (EDP) for 30ml	Price (EDT) for 10 ml
Floral Blush	RM45.00	RM10.00
Floral Immortal	RM45.00	RM10.00
Fruity Rose	RM45.00	RM10.00
Fruity Selena	RM45.00	RM10.00
Fruity Sparkle	RM45.00	RM10.00
Sweet Bombshell	RM45.00	RM10.00
Sweet Coach	RM45.00	RM10.00
Sweet Fantasy	RM45.00	RM10.00
Vanillavie	RM45.00	RM10.00
Vanilla Poison	RM45.00	RM10.00

Types of perfume in Men's Category:

Name	Price (EDP) for 30ml	Price (EDT) for 10ml
Aromatic Adventurous	RM45.00	RM10.00
Aromatic Eros	RM45.00	RM10.00
Aromatic Legend	RM45.00	RM10.00
Citrus Code	RM45.00	RM10.00
Citrus Desire	RM45.00	RM10.00
Citrus Di Gio	RM45.00	RM10.00
Fruity Aventus	RM45.00	RM10.00
Spicy Million	RM45.00	RM10.00
Spicy Royalty	RM45.00	RM10.00
Spicy XS	RM45.00	RM10.00

Types of perfume in Parfum's Category:

Name	Price for 20ml
Intense	RM49.00
Blast	RM49.00
Julia	RM49.00
Isabelle	RM49.00
Elisa	RM49.00
Roselle	RM49.00
Layla	RM49.00

Types of perfume in Scarlet Edition's Category:

Name	Price for 30ml
Sakura	RM45.00
Vaila	RM45.00
Julia	RM45.00
Rare	RM45.00

Types of perfume in Fruity Series' Category:

Name	Price for 30ml
Mango Swirl	RM29.00
Baby Dew	RM29.00
Melon Moonlight	RM29.00
Apple Smoothie	RM29.00
Strawberry Crush	RM29.00

When customers add to cart the perfumes that they choose, they will make the payment and if the customer wants to buy more than one:

The calculation will be (price \* quantity)

When the customer pay for the perfumes:

The calculation for change will be (pay – price).

#### 7. Algorithm:

Declare username, password, choose, category, perfumeName, quantity, price, totalprice, pay, change.

Scan username, password, choose

Display category perfumes

Scan category, perfumeName, quantity, price, totalprice,

totalprice = price \* quantity

Print totalprice

Scan pay, change

change = pay – totalprice

Print change



## 8. Pseudocode:

Start

Output "Enter your username"

Input username

Output "Enter your password"

Input password

Output "CATEGORY"

Input category

Output "Choose your perfume"

Input perfumeName

Output "How many quantity that you want"

Input quantity

Output "Enter the price"

Input price

Calculate  $\text{totalprice} = \text{price} * \text{quantity}$

Output totalprice

Output "Pay the perfume"

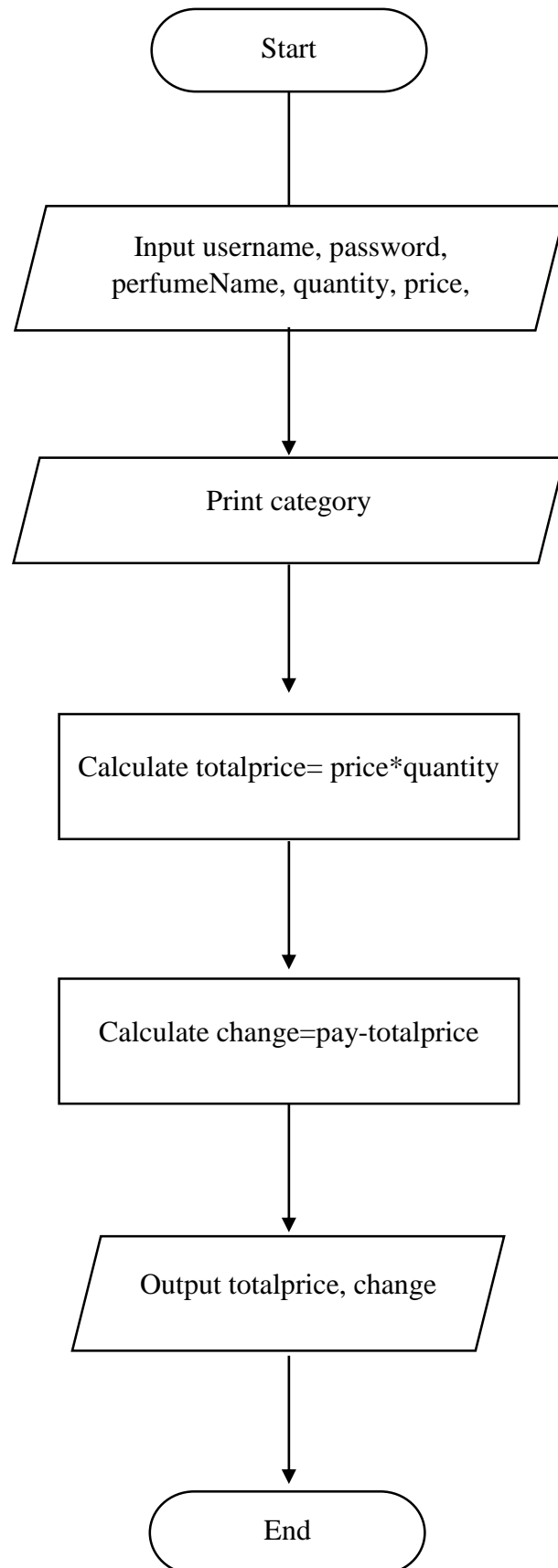
Input pay

Calculate  $\text{change} = \text{pay} - \text{totalprice}$

Output change

End

9. Flowchart:



## 10. Coding:

```
package AssignmentProject;

import java.util.Scanner;

public class Project1 {

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

        Scanner input = new Scanner(System.in);

        System.out.println("Log in");
        System.out.print("Enter your username : ");
        String username = input.next();
        System.out.print("Enter your password : ");
        int password = input.nextInt();

        System.out.println("-----");
        System.out.println("          SUGARBOMB ONLINE SHOP          ");
        System.out.println("-----");
        System.out.println("      CATEGORY          ACCOUNT      ");
        System.out.println("-----");
        String choose = input.next();

        System.out.println();
        System.out.println("          WOMEN"
            + "\r\n"
            + "          EDT 10ml   |   EDP 30ml"
            + "\r\n"
            + "          RM 10.00   |   RM 45.00");
        System.out.print("\r\n"
            + "          Name"
            + "\r\n");
```

```

+ "                Floral Blush"
+ "\r\n"
+ "                Floral Immortal"
+ "\r\n"
+ "                Fruity Rose"
+ "\r\n"
+ "                Fruity Selena"
+ "\r\n"
+ "                Fruity Sparkle"
+ "\r\n"
+ "                Sweet Bombshell"
+ "\r\n"
+ "                Sweet Coach"
+ "\r\n"
+ "                Sweet Fantasy"
+ "\r\n"
+ "                Vanillavie"
+ "\r\n"
+ "                Vanilla Poison"
+ "\r\n");
System.out.println();
System.out.println("                MEN                ")
+ "\r\n"
+ "                EDP 30ml    |    EDT 10ml    "
+ "\r\n"
+ "                RM 45.00    |    RM 10.00    ");
System.out.print("\r\n"
+ "                Name"
+ "\r\n"
+ "                Aromatic Adventurous"
+ "\r\n"
+ "                Aromatic Eros"
+ "\r\n"
+ "                Aromatic Legend"

```

```
+ "\r\n"
+ "          Citrus Code"
+ "\r\n"
+ "          Citrus Desire"
+ "\r\n"
+ "          Citrus Di Gio"
+ "\r\n"
+ "          Fruity Aventus"
+ "\r\n"
+ "          Spicy Million"
+ "\r\n"
+ "          Spicy Royalty"
+ "\r\n"
+ "          Spicy XS"
+ "\r\n");
System.out.println();
System.out.println("          PARFUM | PRICE (RM 49.00)");
System.out.print("\r\n"
+ "          Name"
+ "\r\n"
+ "          Intense"
+ "\r\n"
+ "          Blast"
+ "\r\n"
+ "          Julia"
+ "\r\n"
+ "          Isabelle"
+ "\r\n"
+ "          Elisa"
+ "\r\n"
+ "          Roselle"
+ "\r\n"
+ "          Layla"
+ "\r\n");
```

```
System.out.println();
System.out.println("          SCARLET EDITION | PRICE (RM 45.00)");
System.out.print("\r\n"
+ "          Name"
+ "\r\n"
+ "          Sakura"
+ "\r\n"
+ "          Vaila"
+ "\r\n"
+ "          Julia"
+ "\r\n"
+ "          Rare"
+ "\r\n");
System.out.println();
System.out.println("          FRUITIES SERIES | PRICE (RM 29.00)");
System.out.print("\r\n"
+ "          Name"
+ "\r\n"
+ "          Mango Swirl"
+ "\r\n"
+ "          Baby Dew"
+ "\r\n"
+ "          Melon Moonlight"
+ "\r\n"
+ "          Apple Smoothie"
+ "\r\n"
+ "          Strawberry Crush"
+ "\r\n");

System.out.println();
System.out.print("Choose categories : ");
String category = input.nextLine();
System.out.println();
```

```
System.out.print("Choose your perfume : ");
String perfumeName = input.nextLine();
System.out.println();
```

```
    System.out.print("How many quantity that you want : ");
    int quantity = input.nextInt();
    System.out.println();
```

```
    System.out.print("Add to cart : " +perfumeName);
    System.out.println();
```

```
    System.out.print("Enter the price :                RM ");
    double price = input.nextDouble();
    System.out.println();
```

```
double totalprice = (price * quantity );
System.out.print("Total Price                RM " + totalprice);
System.out.println();
```

```
System.out.print("Pay the perfume :                RM ");
double pay = input.nextDouble();
System.out.println();
```

```
double change = (pay - totalprice);
System.out.print("Your change                RM " + change);
System.out.println();
```

```
System.out.println("YOU HAVE MADE THE PAYMENT FOR THIS PERFUME. THANK
YOU AND COME AGAIN");
}

}
```

Output:

Log in

Enter your username : azyyati

Enter your password : 123456

-----  
SUGARBOMB ONLINE SHOP  
-----

CATEGORY

ACCOUNT

CATEGORY

|

WOMEN

EDT 10ml		EDP 30ml
RM 10.00		RM 45.00

Name

Floral Blush  
Floral Immortal  
Fruity Rose  
Fruity Selena  
Fruity Sparkle  
Sweet Bombshell  
Sweet Coach  
Sweet Fantasy  
Vanillavie  
Vanilla Poison

MEN

EDP 30ml		EDT 10ml
RM 45.00		RM 10.00

Name

Aromatic Adventurous  
Aromatic Eros  
Aromatic Legend  
Citrus Code  
Citrus Desire  
Citrus Di Gio  
Fruity Aventus  
Spicy Million  
Spicy Royalty  
Spicy XS



PARFUM | PRICE (RM 49.00)

Name  
Intense  
Blast  
Julia  
Isabelle  
Elisa  
Roselle  
Layla

SCARLET EDITION | PRICE (RM 45.00)

Name  
Sakura  
Vaila  
Julia  
Rare

FRUITIES SERIES | PRICE (RM 29.00)

Name  
Mango Swirl  
Baby Dew  
Melon Moonlight  
Apple Smoothie  
Strawberry Crush

Choose categories :

Choose your perfume : SCARLET EDITION : SAKURA

How many quantity that you want : 2

Add to cart : SCARLET EDITION : SAKURA

Enter the price : RM 45.00

Total Price RM 90.0

Pay the perfume : RM 100.00

|

Your change RM 10.0

YOU HAVE MADE THE PAYMENT FOR THIS PERFUME. THANK YOU AND COME AGAI



**UNIVERSITI UTARA MALAYSIA**

**FIRST SEMESTER SESSION 2021/2022 (A211)**

**STIA1113 PROGRAMMING 1**

**KUMPULAN C**

**GROUP ASSIGNMENT**

**ASSIGNMENT 1**

**TOPIC: BEAUTY**

**SUB TOPIC: SKIN CARE**

**LECTURER NAME:**

**PROF. MADYA DR. AZMAN B YASIN**

**PREPARED BY:**

**AINUL AMIRAH AFIQAH BINTI ABDUL TAIB**

**MATRIC NUMBER: 286535**

## **1. PROBLEM STATEMENTS:**

Deciem's newest skin care brand, The Ordinary is based in Canada. Deciem actually has a slew of other 'children' with a variety of targets and price ranges. The Ordinary, on the other side, piques the interest of beauty enthusiast particularly those who are 'crazy' for skin care product. This is due to the product high quality, which promises the users smooth and soft skin. The Ordinary also one of the skin care brands that used by many people and never disappoints the users. However, there is a feedback from users that wanted the owner of this brand to create a special product for users that have a sensitive skin because some ingredients in the product are not suitable for certain users that can cause a damage to user's face. Its hard for some users to find a good product for their skin because the content that suitable for their skin is already mixed with other content that affects their skin. Therefore, consumers feel that if there is a solution to this problem, it is easier for them to buy the right serum for their skin.

## **2. PROBLEM SOLUTION:**

Product owner's need to produce products that can give a satisfactions to the users to always be the choice of consumers in the same time they can have a variety of product compared to other brand.

## **3. WAYS:**

- a. Release a new product for a special users because they have a different type of skin
- b. Custom Skin Care which is users can request to add on or remove ingredients in their Serum by register and make account at the product brand's website. The customer can only mix 2 ingredient into their Serum. If the customers put more than one ingredient in their serum, they have to pay extra RM20.

#### **4. BEST WAY :**

a. First alternative is good but I do not recommend it because how would the brand owner know every user's skin type? Even if they knew, it will be detrimental to them because they have to produce many variations of new product according to the suitability of consumers and the problem will get even worse if there is wastage or the product is not well received by the customers.

b. The second Alternative is the best way because the users of the product can be able to create their own products (custom product) by increasing the amount of ingredients in the Serum according to the suitability of their skin or removing the ingredients that can damage their skin. This method does not involve wastage as it can be customized through the form provided by the product owner. But, they will pay extra amount because of the addition of ingredient used to create their special Serum and the product can be choose whether to pack it in a 60ml or 30ml bottle.

## **5. INSTRUCTION:**

1. Customers need to log in to the website and for new member, they must key in their personal information such as their full name, address and email in the skin care website.
2. The website will show them the list of the ingredient that can be add to their Serum with the price list.
3. The users need to choose in what bottle they wanted their Serum to be pack before they choose the ingredient and how much the amount of the ingredient that they wanted to add to their Serum
4. After they done choosing, the system will show the result of the ingredient they add and the total of price.
5. The users still can add on or remove some ingredient if they are not confirm or cancel buying.
6. After the users confirm to buy, and agree to the terms they can proceed to the payment method
7. The system will show how many points they have collected.
8. After done make a payment, the system will appear “Thank You for purchasing from us! We will send the receipt and the tracking number via email! You will get your order after 14days of working”

## **6. EVALUATE THE SOLUTION:**

Based on this solution, it is very effective because it gives consumers the opportunity to create their special Serum that suits their own skin. Apart from that, consumers can also enjoy

the product that really suit their skin. The owners also can avoid huge losses as there is no wastage by creating a product that do not suit the consumer's skin.

#### 7. CALCULATION TABLE:

INGREDIENTS	AMOUNT	PRICE for 30ml (RM)	PRICE for 60ml (RM)
Niancinamide 10%	1	30	45
Zinc 1%	1	25	40
Alpha Arbutin 2%	1	45	60
Beta Hydroxy Acid 2%	1	35	60
Hyalucronic Acid 2%	1	30	45
Alpha Hydroxy Acid 30%	1	35	60

Formula :

Ingredients	Amount	Bottle	Formula	Total
Niancinamide 10% + Zinc1%	2 + 2	30ml	(Niancinamide 10% price * 2) + (Zinc 1% price*2) (RM30* 2) +( RM25*2) RM60 + RM50	RM110
Alpha Arbutin 2% + Hyalucronic Acid 2% + Alpha Hydroxy Acid 30%	2 + 1+2	60ml	(Alpha Arbutin 2% price * 2) + Hyalucronic Acid 2% price + (Alpha Hydroxy Acid 30% price *2) + extra charge (RM60* 2) + RM45 + (RM60*2) + RM20 RM 120 + RM 45 + RM120 + 20	RM325
TOTAL SPEND				RM435

## **8. AIGORITHM**

## **9. PSEUDOCODE**

Start

Read your name, e-mail, address and phone number

Print ingredient with price list

Read your bottle selection

Read your ingredients selection

Read your ingredients amounts

Calculate price

Ingredient selection \* amounts added

Print total price

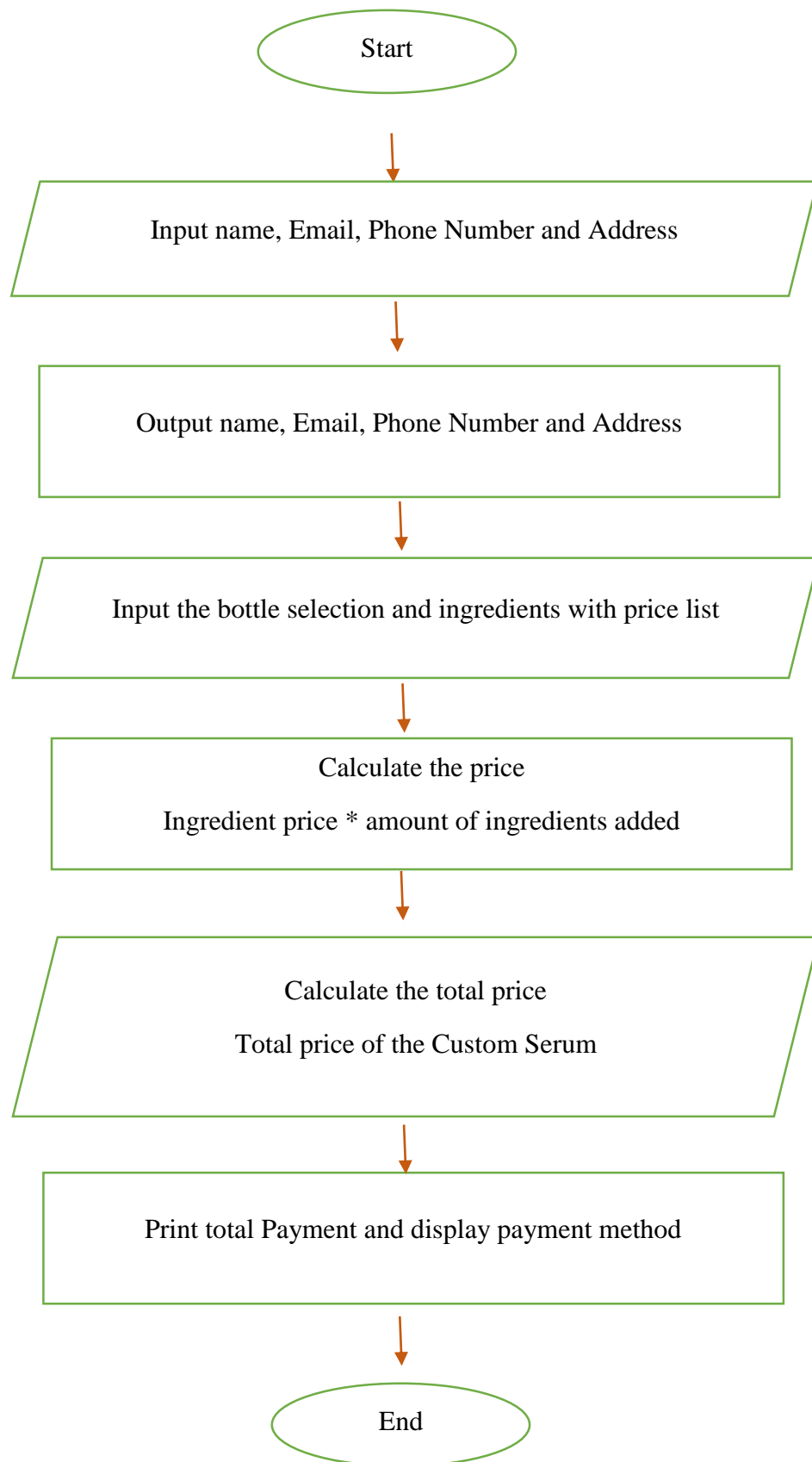
Display payment method

Print receipt

End



## 10. FLOW CHART



```

package Assignment1;

import java.util.Scanner;

public class saimen4 {

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

        double price_Niancinamide = 30;
        double price_Zinc = 25;
        double price_AHA = 35;
        double price_Alpha= 45;
        double price_Beta = 35;
        double price_charge = 20;
        double price_Niancinamide2 = 45;
        double price_Zinc2 = 40;
        double price_AHA2 = 60;
        double price_Alpha2= 60;
        double price_Beta2 = 60;
        double price_Hyalucronic2= 45;
        double amount, amount2, amount3, amount4, amount5;
        double price1 , price2, price3, price4;
        double finalprice, finalprice2;
        double total;
        double size, size2;

        System.out.println(" Welcome to The Ordinary website, Your House of
beauty!");

        System.out.println();

        System.out.print("Enter your name : ");
        String name = sc.nextLine();
        System.out.println();

        System.out.print("Enter your email : ");

```

```

String email = sc.nextLine();
System.out.println();

System.out.print("Enter your phone number : ");
String number = sc.nextLine();
System.out.println();

System.out.print("Enter your address : ");
String address = sc.nextLine();
System.out.println();

System.out.println("Welcome to The Ordinary House of Beauty, " +
name + "!");
System.out.println();

System.out.println("Before you proceed,");
System.out.println("We would like to inform that ");
System.out.println("You can add only two ingredient into your
Serum.");
System.out.println("You will be charge RM20 if you add more than two
ingredients into you Serum");
System.out.println();

System.out.println("Here is the ingredients that you can add into
your Serum and the price list");
System.out.println("Happy Shopping!");
System.out.println();

System.out.println();
System.out.println("Please select your order size : ");
size = sc.nextDouble();
System.out.println();
System.out.println("Great! Now choose your ingredients for your 30ml
Serum.");
System.out.println();
System.out.println("INGREDIENTS          QUANTITY    PRICE");

```

```

System.out.println("Niancinamide 10%      1      30");
System.out.println("Zinc 1%                1      25");
System.out.println("Alpha Arbutin 2%           1      45");
System.out.println("Beta Hydroxy 2%             1      35");
System.out.println("Hyalucronic Acid 2%        1      30");
System.out.println("Alpha Hydroxy Acid 30%    1      35");
System.out.println();
System.out.println("*****");
System.out.println();

add : ";

String ingredient = sc.next();
System.out.println("Enter the quantity of " + ingredient + " : " );
amount = sc.nextDouble();
System.out.println();
double niancinamide = amount*price_Niancinamide;
System.out.println("Price for 2 Niancinamide 10 % is RM" +
(niancinamide));

add : ";

String ingredient2 = sc.next();
System.out.println("Enter the quantity of " + ingredient2 + " : " );
amount2 = sc.nextDouble();
System.out.println();
double zinc = amount2*price_Zinc;
System.out.println("Price for 1 Zinc 1% is RM" + (zinc));

System.out.println("Do you want to add other ingredients? : " );
String No = sc.next();
System.out.println();
double total_price_30 = niancinamide + zinc;

```

```

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

        System.out.println();

        System.out.println("Your total price for your 30ml Serum is " +
(total_price_30));

        System.out.println();

        System.out.print("=====
=====");

        System.out.println();

        System.out.print("Do you want to add new order or proceed to
payment? : " );

        String Order= sc.next();

        System.out.println();

        System.out.println("Lets continue shopping! Please select your
second order size : ");

        size2 = sc.nextDouble();

        System.out.println();

        System.out.println("Great! Now choose your ingredients for your 60ml
Serum.");

        System.out.println();

        System.out.println("INGREDIENTS          QUANTITY    PRICE");

        System.out.println("Niancinamide 10%          1          45");

        System.out.println("Zinc 1%              1          40");

        System.out.println("Alpha Arbutin 2%      1          60");

        System.out.println("Beta Hydroxy 2%       1          60");

        System.out.println("Hyalucronic Acid 2%   1          45");

        System.out.println("Alpha Hydroxy Acid 30% 1          60");

        System.out.println();

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

        System.out.println();

```

```

add : ");
    System.out.println("Please enter the first ingredient you want to
    String ingredient3 = sc.next();
    System.out.println("Enter the quantity of " + ingredient3 + " : " );
    amount3 = sc.nextDouble();
    System.out.println();
    double alpha = amount3*price_Alpha2;
    System.out.println("Price for 2 Alpha Arbutin 2% is RM" + (alpha));

    System.out.println("Please enter the second ingredient you want to
add : ");
    String ingredient4 = sc.next();
    System.out.println("Enter the quantity of " + ingredient4 + " : " );
    amount4 = sc.nextDouble();
    System.out.println();
    double hyalucronic = amount4*price_Hyalucronic2;
    System.out.println("Price for 1 Hyalucronic Acid 2% is RM" +
(hyalucronic));

    System.out.println("Do you want to add other ingredients? : " );
    String Yes = sc.next();
    System.out.println();

    System.out.print("You will be charge RM20 for adding more than two
ingredients. Proceed? : ");
    String Yes2 = sc.next();
    System.out.println();

    System.out.println("Please enter the third ingredient you want to
add : ");
    String ingredient5 = sc.next();
    System.out.println("Enter the quantity of " + ingredient5 + " : " );
    amount5 = sc.nextDouble();
    System.out.println();

```

```

        double aha = amount5*price_AHA2;

        System.out.println("Price for 1 Alpha Hydroxy Acid 30% is RM" +
(aha));

        double total_price_60 = alpha+hyalucronic+aha+price_charge;

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

        System.out.println();

        System.out.println("Your total price for your 60ml Serum is RM" +
(total_price_60));

        System.out.println();

        System.out.print("=====
=====");

        System.out.println();

        System.out.print("Do you want to add new order or proceed to
payment? : " );

        String payment= sc.next();

        System.out.println();

        double total_price = total_price_30 + total_price_60 + price_charge;

        System.out.print("Your total price for your 2 bottles of Custom
Serum is RM" + (total_price));

        System.out.println();

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

        System.out.println();

        System.out.print("Choose your payment methtod : " );

        String Maybank= sc.next();

        System.out.println("Delivery : Free Delivery " );

        System.out.println();

        System.out.println("Thank You for purchasing from us!");

```

```
        System.out.println("We will send the receipt and the tracking number  
via email!");
```

```
        System.out.println("You will get your order after 14days of  
working");
```

```
    }
```

```
}
```



Output....

Welcome to The Ordinary website, Your House of beauty!

Enter your name : Mira

Enter your email : qnamiyaa88@gamil.com

Enter your phone number : 0138689142

Enter your address : NO 20 Tman Berlian Loeong 1 94300 Kapit Sarawak.

Welcome to The Ordinary House of Beauty, Mira!

Before you proceed,

We would like to inform that

You can add only two ingredient into your Serum.

You will be charge RM20 if you add more than two ingredients into you Serum

Here is the ingredients that you can add into your Serum and the price list

Happy Shopping!

Please select your order size :

30

Great! Now choose your ingredients for your 30ml Serum.

INGREDIENTS	QUANTITY	PRICE
Niancinamide 10%	1	30
Zinc 1%	1	25
Alpha Arbutin 2%	1	45

Beta Hydroxy 2%	1	35
Hyalucronic Acid 2%	1	30
Alpha Hydroxy Acid 30%	1	35

\* \* \* \* \*

Please enter the first ingredient you want to add :

Niancinamide

Enter the quantity of Niancinamide :

2

Price for 2 Niancinamide 10 % is RM60.0

Please enter the second ingredient you want to add :

Zinc

Enter the quantity of Zinc :

1

Price for 1 Zinc 1% is RM25.0

Do you want to add other ingredients? :

No

=====

Your total price for your 30ml Serum is 85.0

=====

Do you want to add new order or proceed to payment? : Order

Lets continue shopping! Please select your second order size :

60

Great! Now choose your ingredients for your 60ml Serum.

INGREDIENTS	QUANTITY	PRICE
Niancinamide 10%	1	45
Zinc 1%	1	40
Alpha Arbutin 2%	1	60
Beta Hydroxy 2%	1	60
Hyalucronic Acid 2%	1	45
Alpha Hydroxy Acid 30%	1	60

\* \* \* \* \*

Please enter the first ingredient you want to add :

Arbutin

Enter the quantity of Arbutin :

2

Price for 2 Alpha Arbutin 2% is RM120.0

Please enter the second ingredient you want to add :

Hyalucronic

Enter the quantity of Hyalucronic :

1

Price for 1 Hyalucronic Acid 2% is RM45.0

Do you want to add other ingredients? :

Yes

You will be charge RM20 for adding more than two ingredients. Proceed? : Yes

Please enter the third ingredient you want to add :

AHA

Enter the quantity of AHA :

2

Price for 1 Alpha Hydroxy Acid 30% is RM120.0

=====

Your total price for your 60ml Serum is RM305.0

=====

Do you want to add new order or proceed to payment? : NO

Your total price for your 2 bottles of Custom Serum is RM410.0

\*\*\*\*\*

Choose your payment methtod : Online Transfer

Delivery : Free Delivery

Thank You for purchasing from us!

We will send the receipt and the tracking number via email!

You will get your order after 14days of working



**UNIVERSITI UTARA MALAYSIA**

**FIRST SEMESTER SESSION 2021/2022 (A211)**

**STIA1113 PROGRAMMING 1**

**KUMPULAN C**

**GROUP ASSIGNMENT**

**ASSIGNMENT 1**

**TOPIC: BEAUTY**

**SUB TOPIC: HAIR**

**LECTURER NAME:**

**PROF. MADYA DR. AZMAN B YASIN**

**PREPARED BY:**

**CHOONG QIAN YU**

**MATRIC NUMBER: 286623**

**Problem:**

The National Cancer Society Malaysia (NCSM) had organized a campaign to raise public awareness on the prevention, screening and early detection of cancer through education and raising funds for the patients. MINI salon planned to organize an event to support this campaign.

**Alternative:**

1. Help to distribute the brochure of NCSM to the public and their customer.
2. Held an event to give financial support to this campaign.
3. Held an event to encourage the public to donate their hair by supporting the campaign.

**Best way:**

-First alternative is good, but not suggested because many people will not read through the brochure in detail and end up just recycling the brochure. In the end, that's not much helping to support this campaign and help the patients.

-Second alternative is good and suggested because some patients had spent all of their savings to have chemotherapy and buy medicines, which is very expensive to cure their cancer. High expenses make it difficult for them to cope with daily expenses.

-Third alternative is good and also suggested because the patients that experienced chemotherapy may have a drastic hair loss due to the chemical reaction in their body to fight with the cancer cells. The hair donated by the public can be made as a wig and used by the patients.

**Instruction:**

1. Those who wish to donate their hair have to fill in the details in the registration form provided.
2. The donor is required to fill in their:
  - i) Name
  - ii) NRIC
  - iii) Contact No.
  - iv) Age
  - v) Gender
3. A small number of fees will be collected as donations to support the campaign.
4. The collection of the fees can be done via cash or online transfer.
4. Marcus's studio will donate RM5 for each donor through online transfer.
5. All the hair donations and money collected will give to NCSM.

**Fees listing:**

Female: RM10

Male: RM 7

Kid: RM5

**Formula:**

Number of female donor	$X$
Fees collected (A)	$X \times RM10$

Number of male donor	$Y$
Fees collected (B)	$Y \times RM7$

Number of kids donor	$Z$
Fees collected (C)	$Z \times RM5$

Donations from MINI salon (D)	$(X + Y + Z) \times RM5$
Total donations	$A + B + C + D$

Total collected fees via cash	$E$
Total collected fees via online transfer	$F$

**Pseudocode:**

START

Output "Enter your name"

Input name

Output "Enter your NRIC"

Input ic

Output "Enter your contact number"

Input num

Output "Enter your age"

Input age

Output "Enter your gender"

Input gender

Output name, ic, num, age, gender

Output "Please select your payment method"

Input pay

Output "How many female took part in this donation: "

Input female

Output "How many male took part in this donation: "

Input male

Output "How many kids took part in this donation: "

Input kids

Output "How much fees collected via cash: "

Input cash

Output "How much fees collected via online transfer: "

Input online

Input a, b, c d, total

Calculate the fees collected from female, male, kids and extra donation

Calculate the total donation

Output a, b, c, d, total

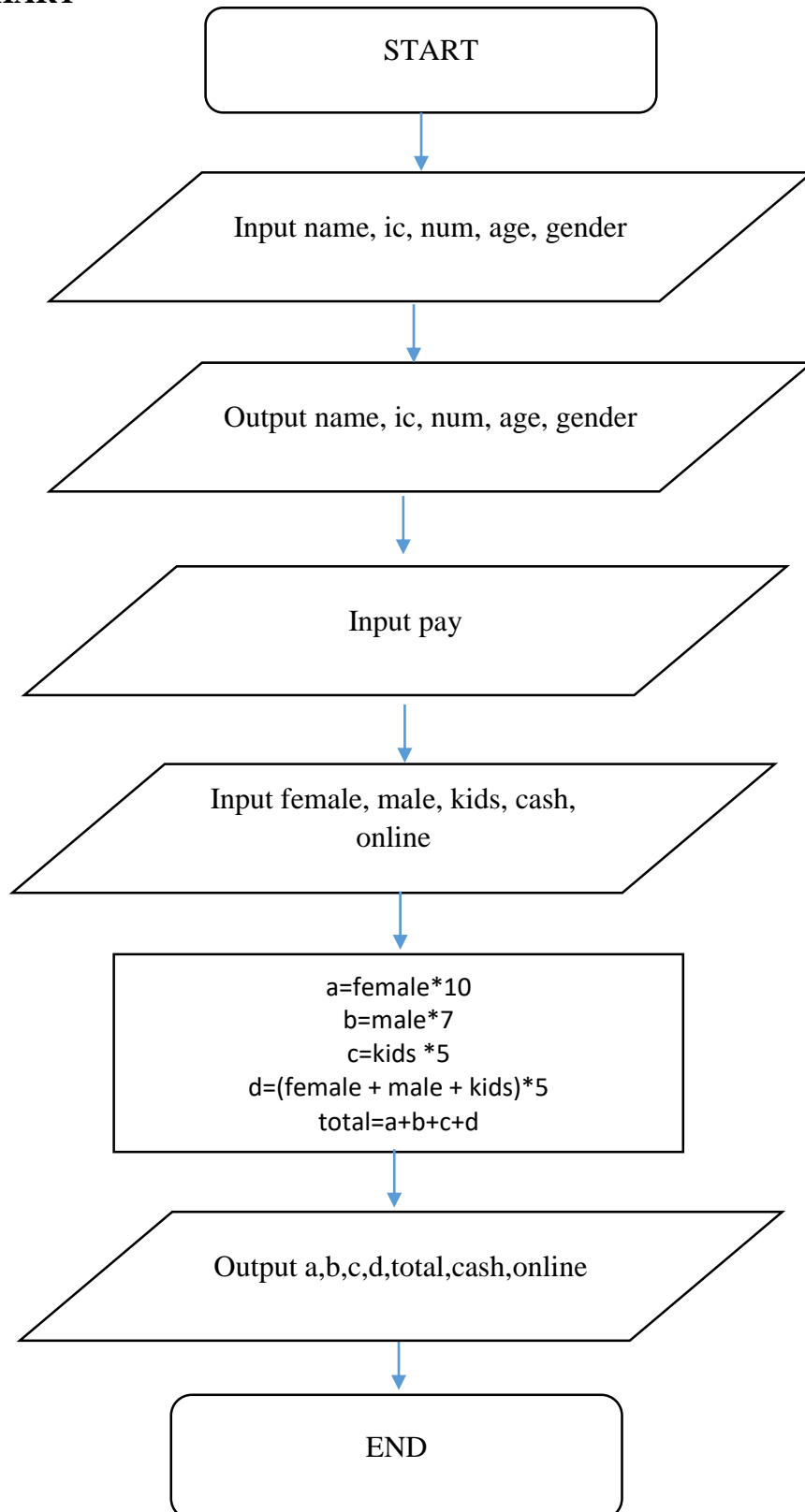
Output cash

Output online

END



## FLOW CHART



## **CODING**

```
package assignment1;

import java.util.Scanner;

public class Beauty_Hair {

    public static void main(String[] args) {

        // TODO Auto-generated method stub

        //hair donations to support campaign NCSM

        Scanner sc=new Scanner (System.in);

        System.out.println("Hi! Welcome to the hair donation event
organized by MINI salon to support the campaign of NCSM to help patients that are suffering from
cancer!");

        System.out.println("");

        System.out.println("The public is welcome to take part in this event
to show us your support!");

        System.out.println("");

        System.out.println("The participant who wishes to join, the fees
collected will be: ");

        System.out.println("Female : RM10");

        System.out.println("Male  : RM7 ");

        System.out.println("Kids  : RM5 ");

        System.out.println("");

        System.out.println("For every participant, the organizer, the MINI
salon will donate an extra RM5 to NCSM.");

        System.out.println("");

        System.out.println("The total fees collected and extra donation will
all give to NCSM to help the patient in need along with the donated hair.");

        System.out.println("");

        System.out.println("For those who are interested to join, you are
required to enter your details.");
```

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

```
System.out.println("Please enter your name:");
```

```
String name=sc.nextLine();
```

```
System.out.println("Please enter your NRIC:");
```

```
String ic=sc.nextLine();
```

```
System.out.println("Please enter your contact number:");
```

```
String num=sc.nextLine();
```

```
System.out.println("Please enter your age:");
```

```
String age=sc.nextLine();
```

```
System.out.println("Please enter your gender:");
```

```
String gender=sc.nextLine();
```

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

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

```
System.out.println("      PERSONAL DETAILS      ");
```

```
System.out.println("Name          : "+name);
```

```
System.out.println("NRIC          : "+ic);
```

```
System.out.println("Contact number : "+num);
```

```
System.out.println("Age           : "+age);
```

```
System.out.println("Gender        : "+gender);
```

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

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

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

```

transfer?");

        System.out.println("Do you wish to pay fees via cash or online

of the receiver bank account are:");

        System.out.println("Maybank");
        System.out.println("MINI salon");
        System.out.println("173678460739");
        System.out.println("Please type on the reference with \"Hair
Donation\"");

        System.out.println("Please select your payment method: ");
        String pay=sc.nextLine();

        System.out.println("Thank you for your support!!!");
        //calculation for the total donation
        System.out.println("-----");
        -----");

        System.out.println("How many female took part in this donation: ");
        int female=sc.nextInt();

        System.out.println("How many male took part in this donation: ");
        int male=sc.nextInt();

        System.out.println("How many kids took part in this donation: ");
        int kids=sc.nextInt();
        System.out.println("-----");
        -----");

        int a = female * 10;
        int b = male * 7;
        int c = kids * 5;
        int d = (female + male + kids) * 5; //the extra donation from MINI
salon

        int total = a + b + c + d;

```

```
System.out.println("Total fees collected from ");
System.out.println("Female : " + a);
System.out.println("Male : " + b);
System.out.println("Kids : " + c);
System.out.println("Extra donation from MINI salon : " + d);
System.out.println("The total donation that give to NCSM: RM
"+total);

System.out.println("");

System.out.println("How much fees collected via cash: ");
double cash=sc.nextDouble();

System.out.println("How much fees collected via online transfer: ");
double online=sc.nextDouble();

System.out.println("Total cash donations is RM"+cash);
System.out.println("Total online transfer donations is RM"+online);

sc.close();

}

}
```

## Output:

Hi! Welcome to the hair donation event organized by MINI salon to support the campaign of NCSM to help patients that are suffering from cancer!

The public is welcome to take part in this event to show us your support!

The participant who wishes to join, the fees collected will be:

Female : RM10

Male : RM7

Kids : RM5

For every participant, the organizer, the MINI salon will donate an extra RM5 to NCSM.

The total fees collected and extra donation will all give to NCSM to help the patient in need along with the donated hair.

For those who are interested to join, you are required to enter your details.

Please enter your name:

Choong Qian Yu

Please enter your NRIC:

010422-03-1234

Please enter your contact number:

011-3456199

Please enter your age:

20

Please enter your gender:

female

\*\*\*\*\*

### PERSONAL DETAILS

Name : Choong Qian Yu

NRIC : 010422-03-1234

Contact number : 011-3456199

Age : 20

Gender : female

\*\*\*\*\*

Do you wish to pay fees via cash or online transfer?

If you wish to pay via online transfer, the details of the receiver bank account are:

Maybank

MINI salon

173678460739

Please type on the reference with "Hair Donation"

Please select your payment method:

Cash

Thank you for your support!!!

-----  
How many female took part in this donation:

37

How many male took part in this donation:

25

How many kids took part in this donation:

-----  
Total fees collected from

Female : 370

Male : 175

Kids : 55

Extra donation from MINI salon : 365

The total donation that give to NCSM: RM 965

How much fees collected via cash:

650

How much fees collected via online transfer:

315

Total cash donations is RM650.0

Total online transfer donations is RM315.0