

DEPARTMENT OF ICT, CFS IIUM
SEMESTER 2, SESSION 2021/2022ICT0525 – INTRO. TO PROGRAMMING
ASSIGNMENT 2 (24 marks)

QUESTION:

A company called Cute Cookies sells six flavours of cookies, packed in three types of packages, 12 pieces, 24 pieces and 100 pieces. **Examples of cookies and prices are given below.**

Cookie Flavours	12 pcs	24 pcs	100 pcs
Walnut	3.50	5.00	25.00
Almond	3.50	5.00	24.50
Chocolate	1.50	4.00	14.00
Coffee	2.90	5.00	15.00
Oat	2.70	4.00	12.80
Lemon	2.00	3.00	11.00

For your assignment, list another six different flavours of cookies with same prices of the three types of packages.

1. The program should declare the following arrays:

`cookie_names[] []` – 2D array of six strings of cookie names

`cookie_price [] []` – 2D array of price of cookies for each flavour and for each package size

`package_types [] []` – 2D array of string for the three package types

`sales` - to store sales for each order

`total_sales` - to store **ALL** sales

`response` – to store response from user (to continue ordering or not)

2. The program must use the functions below:

- `main ()` – calls `ChooseCookies ()` to read choice of cookies flavour, call `GetPackage ()` to read chosen package type, and `GetQuantity ()` to get the number of packs to order, and pass these numbers to `ProcessOrder ()`. Function `main ()` will also calculate the total sales of all cookies ordered.
- `ChooseCookies ()` receive the `cookie_names[] []` array, reads a choice of cookie flavour (1 or 2 or 3 or 4 or 5 or 6) and returns to the calling module (will read repeatedly if not a valid choice)

- `GetPackage()` receive the `package_types [][]` array, reads the chosen package types, i.e. 1 for 12 pcs, 2 for 24 pcs or 3 for 100 pcs and returns to the calling module.
- `GetQuantity()` that reads the number of packs to order and returns number of packs.
- `ProcessOrder()` receive the `cookie_price [][]` array, receive the choice of cookie flavour, package type and quantity and returns the sales of each order.

Formula to calculate sales: Sales = quantity * price

Total sales are the sum of all sales.

The output must fulfil the sample output below:

```
***Welcome to Cute Cookies***

You may choose from the following flavours:
    Flavour
1. Walnut
2. Almond
3. Chocolate
4. Coffee
5. Oat
6. Lemon

Enter your choice:1
You have chosen Walnut cookies

Available packages:      1) 12 pcs          2) 24 pcs          3) 100 pcs
Choose which package (1 or 2 or 3): 1

Enter quantity:1

Confirmation of order:
1 pack(s) of 12 pcs package of Walnut cookies
Amount to pay is 3.50

Do you want to order another cookies: y

***Welcome to Cute Cookies***

You may choose from the following flavours:
    Flavour
1. Walnut
2. Almond
3. Chocolate
4. Coffee
5. Oat
6. Lemon
```

```
Enter your choice:8
Sorry, wrong choice! Try again

You may choose from the following flavours:
    Flavour
    1. Walnut
    2. Almond
    3. Chocolate
    4. Coffee
    5. Oat
    6. Lemon

Enter your choice:3
You have chosen Chocolate cookies

Available packages:      1) 12 pcs      2) 24 pcs      3) 100 pcs
Choose which package (1 or 2 or 3):1

Enter quantity:1

Confirmation of order:
1 pack(s) of 12 pcs package of Chocolate cookies
Amount to pay is 1.50

Do you want to order another cookies: n

Total amount to pay is RM5.00
-----
Process exited after 23.11 seconds with return value 0
Press any key to continue . . .
```

3. Draw the flowchart only for the main() function.