

五專資工三甲

# 視窗程式設計

---

SB060024

莊鈞凱

ZHUANG JUN KAI

## 題目

- 首先確認使用者要【內用】或【外帶】（使用 GroupBox, RadioButton）
- 飲料品項價格如下(大杯與小杯)，每種品項均可點不同杯數，使用 CheckBox, Slider 與 Label 等控制項。
- 訂購滿 200 元以上者 9 折，300 元以上者 85 折，500 元以上者 8 折。將顧客所點的品項內容包含內用外帶呈現於 TextBlock，並顯示此次訂購的總價與折價金額。對於訂單內容，請依照不同的折扣，自行設計不同的格式顯示方式(粗體，斜體，字體顏色或背景顏色等)。
- 使用 OpenFileDialog 讀取 csv 檔案中以動態產生飲料品項。(請自行製作 csv 檔案，並產生至少 6 項飲料品項)
- 將訂購清單寫入以自行命名之 txt 文字檔案內。
- 請將你的程式碼與程式執行畫面，輸出並彙整成一個 pdf 檔案來繳交，pdf 檔名請以學號+作業編號方式命名，列如第一個作業檔名為 A123456789ex1.pdf。請注意作業繳交要求、日期與格式。

- 1 紅茶大杯,60
- 2 紅茶小杯,40
- 3 綠茶大杯,60
- 4 綠茶小杯,40
- 5 咖啡大杯,70
- 6 咖啡小杯,60
- 7 可樂大杯,40
- 8 可樂小杯,20

```
1 // 解題步驟
2 // 將飲料清單匯入
3 // 顯示飲料清單
4 // 按下按鈕 將訂購的飲料加入清單 顯示訂單內容
5 using Microsoft.Win32;
6 using System;
7 using System.Collections.Generic;
8 using System.IO;
9 using System.Windows;
10 using System.Windows.Controls;
11 using System.Windows.Data;
12 using System.Windows.Documents;
13 using System.Windows.Media;
14
15 namespace _20231005
16 {
17     /// <summary>
18     /// Interaction logic for MainWindow.xaml
19     /// </summary>
20     public partial class MainWindow : Window
21     {
22         Dictionary<string,int> drinks = new Dictionary<string,int>();
23         Dictionary<string,int> orders = new Dictionary<string,int>();
24         string takeout = "";
25         public MainWindow()
26         {
27             InitializeComponent();
28
29             AddNewDrink(drinks);
30
31             DisplayDrinkMenu(drinks);
32         }
33
34         private void DisplayDrinkMenu(Dictionary<string, int> myDrinks)
35         {
36             foreach(var drink in myDrinks)
37             {
38                 var sp = new StackPanel
39                 {
40                     Orientation = Orientation.Horizontal
41                 };
42
43                 var cb = new CheckBox
44                 {
45                     Content = $"{drink.Key} : {drink.Value}元",
46                     Width = 200,
47                     FontFamily = new FontFamily("Consolas"),
48                     FontSize = 18,
49                     Foreground = Brushes.Blue,
50                     Margin = new Thickness(5)
51                 };
52
53                 var sl = new Slider
```

```
54         {
55             Width = 100,
56             Value = 0,
57             Minimum = 0,
58             Maximum = 10,
59             VerticalAlignment = VerticalAlignment.Center,
60         };
61
62         var lb = new Label
63         {
64             Width = 50,
65             Content = "0",
66             FontFamily = new FontFamily("Consolas"),
67             FontSize = 18,
68             Foreground = Brushes.Red
69         };
70
71         // 資料繫結
72         Binding myBinding = new Binding("Value");
73         myBinding.Source = sl;
74         lb.SetBinding(ContentProperty, myBinding);
75
76         sp.Children.Add(cb);
77         sp.Children.Add(sl);
78         sp.Children.Add(lb);
79
80         stackpanel_DrinkMenu.Children.Add(sp);
81     }
82 }
83
84 private void AddNewDrink(Dictionary<string, int> myDrinks)
85 {
86     OpenFileDialog openFileDialog = new OpenFileDialog();
87     openFileDialog.Filter = "CSV檔案|*.csv|文字檔案|*.txt|全部檔案|*.*";
88     if(openFileDialog.ShowDialog() == true)
89     {
90         string filename = openFileDialog.FileName;
91         string[] lines = File.ReadAllLines(filename);
92         foreach (var line in lines)
93         {
94             string[] tokens = line.Split(',');
95             string drinkName = tokens[0];
96             int price = Convert.ToInt32(tokens[1]);
97             myDrinks.Add(drinkName, price);
98         }
99     }
100 }
101
102
103 private void DisplayOrder(Dictionary<string, int> myOrders)
104 {
105     displayTextBlock.Inlines.Clear();
```

```
106         Run titleString = new Run
107         {
108             Text = "您所訂購的訂單為",
109             FontSize = 16,
110             Foreground = Brushes.Blue
111         };
112
113         Run takeoutString = new Run
114         {
115             Text = $"{takeout}",
116             FontSize = 16,
117             FontWeight = FontWeights.Bold
118         };
119
120         displayTextBlock.Inlines.Add(titleString);
121         displayTextBlock.Inlines.Add(takeoutString);
122         displayTextBlock.Inlines.Add(new Run() { Text = "· 訂購名單如下:\n", FontSize = 16 });
123
124         double total = 0.0;
125         double sellPrice = 0.0;
126         string discountString = "";
127
128         int i = 1;
129         foreach(var item in myOrders)
130         {
131             string drinkName = item.Key;
132             int quantity = myOrders[drinkName];
133             int price = drinks[drinkName];
134             total += price * quantity;
135             displayTextBlock.Inlines.Add(new Run() { Text = $"飲料品
136                 項{i}:{drinkName} X {quantity}杯·每杯{price}元·總共
137                 {price * quantity}元\n" });
138             i++;
139         }
140
141         if (total >= 500)
142         {
143             discountString = "訂購滿500元以上者打8折";
144             sellPrice = total * 0.8;
145         }
146         else if (total >= 300)
147         {
148             discountString = "訂購滿300元以上者打85折";
149             sellPrice = total * 0.85;
150         }
151         else if (total >= 200)
152         {
153             discountString = "訂購滿200元以上者打9折";
154             sellPrice = total * 0.9;
155         }
156         else
157         {
158             discountString = "無折扣";
159             sellPrice = total;
160         }
161     }
162 }
```

```
156         discountString = "訂購未滿200元以上者不打折";
157         sellPrice = total;
158     }
159
160     Italic summaryString = new Italic(new Run
161     {
162         Text = $"本次訂購總共{myOrders.Count}項 · {discountString} · 售價{sellPrice}元。",
163         FontSize = 16,
164         FontWeight = FontWeights.Bold,
165         Foreground = Brushes.Red
166     });
167     displayTextBlock.Inlines.Add(summaryString);
168 }
169
170 private void PlaceOrder(Dictionary<string, int> myOrders)
171 {
172     myOrders.Clear();
173     for(int i = 0; i < stackpanel_DrinkMenu.Children.Count;i++)
174     {
175         var sp = stackpanel_DrinkMenu.Children[i] as StackPanel; // 不是本來就StackPanel?
176         var cb = sp.Children[0] as CheckBox;
177         var sl = sp.Children[1] as Slider;
178         string drinkName = cb.Content.ToString().Substring(0,4);
179         int quantity = Convert.ToInt32(sl.Value);
180
181         if(cb.IsChecked == true && quantity != 0)
182         {
183             myOrders.Add(drinkName, quantity);
184         }
185     }
186 }
187
188 private void RadioButton_Checked(object sender, RoutedEventArgs e)
189 {
190     var rb = sender as RadioButton;
191     if (rb.IsChecked == true) takeout = rb.Content.ToString();
192 }
193 private void OrderButton_Click(object sender, RoutedEventArgs e)
194 {
195     // 將訂購的飲料加入清單
196     PlaceOrder(orders);
197     // 顯示訂單內容
198     DisplayOrder(orders);
199 }
200 }
201 }
202
```

```

<Window x:Class="_20231005.MainWindow"
    xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
    xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
    xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
    xmlns:mc="http://schemas.openxmlformats.org/markup-
        compatibility/2006"
    xmlns:local="clr-namespace:_20231005"
    mc:Ignorable="d"
    Title="MainWindow" Height="450" Width="800">
    <Grid>
        <GroupBox Width="617" Margin="10,0,0,361"
            Background="{DynamicResource {x:Static
                SystemColors.GradientInactiveCaptionBrushKey}}" Header="內用/外帶"
            HorizontalAlignment="Left">
            <StackPanel Orientation="Horizontal" VerticalAlignment="Center">
                <RadioButton Content="內用" IsChecked="True" FontSize="18"
                    VerticalAlignment="Center" Width="100" Height="30"
                    Checked="RadioButton_Checked"/>
                <RadioButton Content="外帶" FontSize="18"
                    VerticalAlignment="Center" Width="100" Height="30"
                    Checked="RadioButton_Checked"/>
            </StackPanel>
        </GroupBox>

        <Button x:Name="OrderButton" Content="訂購" Margin="664,184,41,214"
            Click="OrderButton_Click" />

        <ScrollViewer Margin="10,79,173,108">
            <StackPanel x:Name="stackpanel_DrinkMenu"
                Background="■" #FFE7E3FF" VerticalAlignment="Top" />
        </ScrollViewer>

        <ScrollViewer Margin="10,341,173,10">
            <TextBlock x:Name="displayTextBlock" Background="■" #FFE8E8E8"
                TextWrapping="Wrap" />
        </ScrollViewer>

    </Grid>
</Window>

```



輸出結果：

MainWindow

內用/外帶

內用

外帶

☒紅茶大杯

： 60元

2

☒紅茶小杯

： 40元

2

☐綠茶大杯

： 60元

0

☐綠茶小杯

： 40元

0

☐咖啡大杯

： 70元

0

☐咖啡小杯

： 60元

0

☐可樂大杯

： 40元

0

☐可樂小杯

： 20元

0

訂購

您所訂購的訂單為內用，訂購名單如下：

飲料品項1:紅茶大杯 X 2杯，每杯60元，總共120元

飲料品項2:紅茶小杯 X 2杯，每杯40元，總共80元

本次訂購總共2項，訂購滿200元以上者打9折，售價180元。