

五專資工三甲

# 視窗程式設計

---

SB060024

莊鈞凱

ZHUANG JUN KAI

## 題目

請設計一個 Console 程式，讓顧客可以點飲料。

- 定義兩個新的類別 Drink(飲料)和 OrderItem(訂單項目)；Drink 是飲料品項，OrderItem 是每一筆訂單之個別項目，都使用 List 類別來呈現。
- 飲料品項價格如下(大杯與中杯)，每種品項均可點不同杯數，要驗證使用者是否輸入錯誤。

咖啡 60 50

紅茶 30 20

綠茶 25 20

- 訂購滿 200 元以上者 9 折，300 元以上者 85 折，500 元以上者 8 折。
- 訂購完成後顯示顧客所點的品項內容，以及此次訂購的總價與折價金額。

請將你的作業以你的學號為檔名的 pdf 上傳，作業需有封面，內容包含你的程式執行畫面。執行畫面。

```
1 using Microsoft.Win32;
2 using System;
3 using System.Collections.Generic;
4 using System.IO;
5 using System.Threading;
6 using System.Windows;
7 using System.Windows.Controls;
8 using System.Windows.Data;
9 using System.Windows.Documents;
10 using System.Windows.Media;
11
12 namespace WpfApp2
13 {
14     /// <summary>
15     /// Interaction logic for MainWindow.xaml
16     /// </summary>
17     public partial class MainWindow : Window
18     {
19         Dictionary<string, int> drinks = new Dictionary<string, int>();
20         Dictionary<string, int> orders = new Dictionary<string, int>();
21         string takeout = "";
22         public MainWindow()
23         {
24             InitializeComponent();
25
26             //新增所有飲料品項
27             AddNewDrink(drinks);
28
29             //顯示飲料品項菜單
30             DisplayDrinkMenu(drinks);
31         }
32
33         private void DisplayDrinkMenu(Dictionary<string, int> myDrinks)
34         {
35             foreach (var drink in myDrinks)
36             {
37                 var sp = new StackPanel
38                 {
39                     Orientation = Orientation.Horizontal
40                 };
41
42                 var cb = new CheckBox
43                 {
44                     Content = $"{drink.Key} : {drink.Value}元",
45                     Width = 200,
46                     FontFamily = new FontFamily("Consolas"),
47                     FontSize = 18,
48                     Foreground = Brushes.Blue,
49                     Margin = new Thickness(5)
50                 };
51
52                 var sl = new Slider
53                 {
```

```
54         Width = 100,
55         Value = 0,
56         Minimum = 0,
57         Maximum = 10,
58         VerticalAlignment = VerticalAlignment.Center,
59         IsSnapToTickEnabled = true
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     sp.Children.Add(cb);
72     sp.Children.Add(sl);
73     sp.Children.Add(lb);
74
75     //資料繫結
76     Binding myBinding = new Binding("Value");
77     myBinding.Source = sl;
78     lb.SetBinding(ContentProperty, myBinding);
79
80     stackpanel_DrinkMenu.Children.Add(sp);
81     }
82 }
83
84 private void AddNewDrink(Dictionary<string, int> myDrinks)
85 {
86     //myDrinks.Add("紅茶大杯", 60);
87     //myDrinks.Add("紅茶小杯", 40);
88     //myDrinks.Add("綠茶大杯", 60);
89     //myDrinks.Add("綠茶小杯", 40);
90     //myDrinks.Add("咖啡大杯", 80);
91     //myDrinks.Add("咖啡小杯", 50);
92     //myDrinks.Add("可樂大杯", 40);
93     //myDrinks.Add("可樂小杯", 20);
94
95     OpenFileDialog openFileDialog = new OpenFileDialog();
96     openFileDialog.Filter = "CSV檔案|*.csv|文字檔案|*.txt|全部檔案|*.*";
97     if (openFileDialog.ShowDialog() == true)
98     {
99         string filename = openFileDialog.FileName;
100         //string alltext = File.ReadAllText(filename);
101         string[] lines = File.ReadAllLines(filename);
102         foreach (var line in lines)
103         {
104             string[] tokens = line.Split(',');
105             string drinkName = tokens[0];
```

```
106         int price = Convert.ToInt32(tokens[1]);
107         myDrinks.Add(drinkName, price);
108     }
109 }
110 }
111
112 private void OrderButton_Click(object sender, RoutedEventArgs e)
113 {
114     // 將訂購的飲料加入訂單
115     PlaceOrder(orders);
116
117     // 顯示訂單內容
118     DisplayOrder(orders);
119
120     // 生成唯一的檔案名稱，例如使用日期和時間
121     string timestamp = DateTime.Now.ToString("yyyyMMddHHmm");
122     string folderPath = "D:\\Study_Kai\\五專三上\\zhuang-c-sharp\\WpfApp2"; // 請將 "YourFolderPath" 替換為目標資料夾的路徑
123     string orderFileName = Path.Combine(folderPath, "Order_" + timestamp + ".txt");
124
125     // 儲存訂單到新的 txt 檔案
126     SaveOrderToFile(orders, orderFileName);
127 }
128
129 private void SaveOrderToFile(Dictionary<string, int> myOrders, string fileName)
130 {
131     try
132     {
133         using (StreamWriter writer = new StreamWriter(fileName))
134         {
135             writer.WriteLine("訂單內容：");
136             foreach (var item in myOrders)
137             {
138                 string drinkName = item.Key;
139                 int quantity = myOrders[drinkName];
140                 writer.WriteLine($"{drinkName} X {quantity}杯");
141             }
142             writer.Close();
143         }
144         MessageBox.Show("訂單已成功儲存到 " + fileName, "儲存成功");
145     }
146     catch (Exception ex)
147     {
148         MessageBox.Show("儲存訂單時發生錯誤：" + ex.Message, "錯誤");
149     }
150 }
151
```

```
152
153
154     private void DisplayOrder(Dictionary<string, int> myOrders)
155     {
156         displayTextBlock.Inlines.Clear();
157         Run titleString = new Run
158         {
159             Text = "您所訂購的飲品為 ",
160             FontSize = 16,
161             Foreground = Brushes.Blue
162         };
163
164         Run takeoutString = new Run
165         {
166             Text = $"{takeout}",
167             FontSize = 16,
168             FontWeight = FontWeights.Bold
169         };
170
171         displayTextBlock.Inlines.Add(titleString);
172         displayTextBlock.Inlines.Add(takeoutString);
173         displayTextBlock.Inlines.Add(new Run() { Text = " · 訂購明細 ↗",
174             如下: \n", FontSize = 16 });
175
176         double total = 0.0;
177         double sellPrice = 0.0;
178         //string displayString = $"本次訂購為{takeout} · 清單如下: \n";
179         string discountString = "";
180
181         int i = 1;
182         foreach (var item in myOrders)
183         {
184             string drinkName = item.Key;
185             int quantity = myOrders[drinkName];
186             int price = drinks[drinkName];
187             total += price * quantity;
188             displayTextBlock.Inlines.Add(new Run() { Text = $"飲料品 ↗",
189                 項{i}: {drinkName} X {quantity}杯 · 每杯{price}元 · 總共 ↗",
190                 {price * quantity}元\n" });
191             i++;
192         }
193
194         if (total >= 500)
195         {
196             discountString = "訂購滿500元以上者打8折";
197             sellPrice = total * 0.8;
198         }
199         else if (total >= 300)
200         {
201             discountString = "訂購滿300元以上者打85折";
202             sellPrice = total * 0.85;
203         }
204         else if (total >= 200)
```

```
202         {
203             discountString = "訂購滿200元以上者打9折";
204             sellPrice = total * 0.9;
205         }
206         else
207         {
208             discountString = "訂購未滿200元以上者不打折";
209             sellPrice = total;
210         }
211
212         Italic summaryString = new Italic(new Run
213         {
214             Text = $"本次訂購總共{myOrders.Count}項 ·
215                 {discountString} · 售價{sellPrice}元",
216             FontSize = 16,
217             FontWeight = FontWeights.Bold,
218             Foreground = Brushes.Red
219         });
220         displayTextBlock.Inlines.Add(summaryString);
221     }
222     private void PlaceOrder(Dictionary<string, int> myOrders)
223     {
224         myOrders.Clear();
225         for (int i = 0; i < stackpanel_DrinkMenu.Children.Count; i+
226             +)
227         {
228             var sp = stackpanel_DrinkMenu.Children[i] as
229                 StackPanel;
230             var cb = sp.Children[0] as CheckBox;
231             var sl = sp.Children[1] as Slider;
232             string drinkName = cb.Content.ToString().Substring(0,
233                 4);
234             int quantity = Convert.ToInt32(sl.Value);
235
236             if (cb.IsChecked == true && quantity != 0)
237             {
238                 myOrders.Add(drinkName, quantity);
239             }
240         }
241     }
242     private void RadioButton_Checked(object sender, RoutedEventArgs
243         e)
244     {
245         var rb = sender as RadioButton;
246         if (rb.IsChecked == true) takeout = rb.Content.ToString();
247         //MessageBox.Show(takeout);
248     }
249 }
```

```
<Window x:Class="WpfApp2.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:WpfApp2"
    mc:Ignorable="d"
    Title="MainWindow" Height="624" Width="800">
    <Grid>
        <GroupBox Header="內用/外帶" Margin="0,2,0,540"
            HorizontalAlignment="Left" Width="615" BorderBrush="■" #FF898989"
            Background=■" #FFF7F7E6">
            <StackPanel Orientation="Horizontal">
                <RadioButton Content="內用" IsChecked="True" FontSize="18"
                    VerticalContentAlignment="Center"
                    Checked="RadioButton_Checked" Width="100" Height="30"/>
                <RadioButton Content="外帶" FontSize="18"
                    VerticalContentAlignment="Center"
                    Checked="RadioButton_Checked" Width="100" Height="30"/>
            </StackPanel>
        </GroupBox>
        <StackPanel x:Name="stackpanel_DrinkMenu" Background=■" #FFF7E9E9"
            Margin="15,106,185,0" VerticalAlignment="Top"/>
        <Button x:Name="OrderButton" Content="訂購"
            HorizontalAlignment="Left" Margin="663,130,0,0"
            VerticalAlignment="Top" Height="56" Width="127" FontSize="16"
            Click="OrderButton_Click" />
        <ScrollViewer VerticalScrollBarVisibility="Auto"
            Margin="10,386,10,10">
            <TextBlock x:Name="displayTextBlock" Background=■" #FFDFF0FF"
                FontSize="16" TextWrapping="Wrap"/>
        </ScrollViewer>
    </Grid>
</Window>
```



輸出結果：

