

Visual Basic 6.0 (VII)

丙檢試題第二站第二題車輛管理統計

資科系
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第二站試題BASIC應用程式設計

- 編號 試題名稱
- 119-890306 身分證號碼檢查
- **119-890307 高速公路車輛統計**
- 119-890308 分數加、減、乘、除運算
- →三選一 (80分鐘)

第二站第二題高速公路車輛統計VB6

- 由循序檔讀入多筆記錄
- Frame物件 → 母件
- 單一物件 V.S. 物件陣列
- 標題及文字方塊物件如何設定為不見
- 條狀圖量化數據
- 物件陣列指標編號
- 運算結果以條狀圖量化數據輸出 (2個按鈕)
 - 以車型大小排序輸出
 - 以星期次序依序輸出

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第二站第二題高速公路車輛統計VB.NET

- 由循序檔讀入多筆記錄
- GroupBox物件 → 母件
- 物件陣列，Label及linkLabel
- 物件陣列指標編號
- 標題及文字方塊物件如何設定為不見
- 條狀圖量化數據
- 運算結果以條狀圖量化數據輸出 (2個按鈕)
 - 以車型大小排序輸出
 - 以星期次序依序輸出

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標題及文字方塊物件如何設定為不見VB6

- T1(I).Text = ""
- T1(I).BorderStyle = 0 ' 沒有框線
- T1(I) 屬性設定
 - bgcolor → 按鈕表面

- L1(I) = ""
- L1(I).BorderStyle = 0 ' 沒有框線

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標籤物件如何設定為不見VB.NET

- L1(I).text = "" (標籤內容不見)
- L1(I).width = 0 (標籤大小不見)

- L1(I).BorderStyle = BorderStyle.FixedSingle
' 有框線
- L1(I).BorderStyle = BorderStyle.None ' 沒有框線

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條狀圖量化數據(VB6)

- Sh1(I).FillStyle = 1 ' 透明
- Sh1(I).BorderStyle = 0 ' 透明

- Sh1(I - 1).FillStyle = 0 ' 實心
- Sh1(I - 1).FillColor = QBColor(2)

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QBColor顏色(VB6)

- 0→黑色，1→藍色，2→綠色
- 3→青色，4→紅色，5→紫色
- 6→棕色，7→淺灰色，8→深灰色
- 9→淺藍，10→淺綠色，11→淺青色
- 12→淺紅色，13→淺紫色，14→黃色
- 15→白色

- 另一種顏色函數 rgb(red, green, blue)

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顏色(VB.NET之COLOR物件)

- Color.Black , Color.Blue , Color.Green
- Color.Cyan , Color.Red , Color.Brown , Color.Gray , Color.Purple , Color.Blue
- Color.Yellow , Color.White
- 顏色函數 Color.fromArgb(red, green, blue)

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條狀圖量化數據(VB.NET)

- 比例條狀圖計算方法
 - 算出總和 (total)
 - 個別數量 / 總和 * 調整大小(wk_s(i) / total * 300)
 - 算出的結果設定成其大小
 - 範例： $v2(i).Width = 300 * wk_s(i) / total$

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物件陣列指標編號

- 物件陣列指標編號由0開始
- 一般陣列編號也是由0開始，但程式中是由1開始使用

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運算結果以條狀圖量化數據輸出

- 以車型大小排序輸出
- 以星期次序依序輸出

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以車型大小排序輸出(VB6)

- Frame母件之顯示標籤隨按鈕不同而改變
 - Fr1.Caption = C1.Caption
- 為與**星期次序**共用標籤及文字方塊物件，故**放置結果之物件指標需調整**
- 統計圖的寬度，可由下面公式計算出：假設最寬為 3000 Pixel，則某類型車的長條圖寬度公式為：
 $3000 * \text{某類型車總計數量} / \text{所有車輛的加總}$

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以車型大小排序輸出(VB6)

- 文字方塊有格式輸出
For i = 1 To 7
wk = wk + wksum(i)
T1(i - 1).Text = Format(wksum(i),
"###,###")
Next
- 文字方塊顯示位置
T1(I + 1).Left = Sh1(I + 1).Width + Sh1(I + 1).Left
+ 100

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以星期次序依序輸出(VB6)

- Frame母件之顯示標籤隨按鈕不同而改變
 - Fr1.Caption = C2.Caption
- 統計圖的寬度，可由下面公式計算出：假設最寬為 3000 Pixel，則某星期別的長條圖寬度公式為：
 $3000 * \text{某星期別總計數量} / \text{所有車輛的加總}$

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一開始執行的畫面

Form1

應檢人資料

姓名	<input type="text" value="張維維"/>	准考證號碼	<input type="text" value="D9719128"/>
座號	<input type="text" value="5"/>	日期	<input type="text" value="97/11/10"/>

程式讀資料進行星期、車輛統計

```
Dim a1 As String, a2 As Integer, i As Integer
Dim a3 As Integer, a4 As Integer, a5 As Integer
Dim l1(7) As Label, l2(7) As Label, lk_1(7) As LinkLabel
Dim wk(7) As Integer, car(4) As Integer
FileOpen(1, "d:\940307.sm", OpenMode.Input)
For i = 1 To 7 : wk(i) = 0 : Next
For i = 1 To 4 : car(i) = 0 : Next
Do While Not EOF(1)
  Input(1, a1) : Input(1, a2)
  Input(1, a3) : Input(1, a4) : Input(1, a5)
```

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程式讀資料進行星期、車輛統計

```
If a1 = "MONDAY" Then wk(1) = wk(1) + a2 + a3 + a4 + a5
If a1 = "TUESDAY" Then wk(2) = wk(2) + a2 + a3 + a4 + a5
If a1 = "WEDNESDAY" Then wk(3) = wk(3) + a2 + a3 + a4 + a5
If a1 = "THURSDAY" Then wk(4) = wk(4) + a2 + a3 + a4 + a5
If a1 = "FRIDAY" Then wk(5) = wk(5) + a2 + a3 + a4 + a5
If a1 = "SATURDAY" Then wk(6) = wk(6) + a2 + a3 + a4 + a5
If a1 = "SUNDAY" Then wk(7) = wk(7) + a2 + a3 + a4 + a5
car(1) = car(1) + a2 '大型車
car(2) = car(2) + a3 '中型車
car(3) = car(3) + a4 '小型車
car(4) = car(4) + a5 '公務車
Loop
FileClose(1)
```

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將物件加入groupbox 中

```
y = 30
For i = 1 To 7
  l1(i) = New Label() : l2(i) = New Label()
  lk_1(i) = New LinkLabel()
  l1(i).Width = 70 : l2(i).Width = 70 : lk_1(i).Width = 100
  l1(i).Height = 20 : l2(i).Height = 20 : lk_1(i).Height = 20
  l1(i).Left = 50 : lk_1(i).Left = 150 : l2(i).Left = 300
  l1(i).Top = y : l2(i).Top = y : lk_1(i).Top = y
  y = y + 30
  GroupBox2.Controls.Add(l1(i))
  GroupBox2.Controls.Add(lk_1(i))
  GroupBox2.Controls.Add(l2(i))
Next
```

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顯示畫面

The screenshot shows a Windows application window titled "Form1". The window contains a form with the following fields:

- 應檢人資料 (Applicant Information)
- 姓名 (Name): 蔡耀鐘
- 准考證號碼 (Admission Number): D9719128
- 座號 (Seat Number): 5
- 日期 (Date): 97/11/10

Below the form, there are two buttons: "依車量種類" (By Vehicle Type) and "依星期別" (By Day of Week). The "依星期別" button is selected, and a bar chart is displayed below it, showing the number of vehicles for each day of the week.

星期	數量
星期一	377,602
星期二	160,081
星期三	71,541
星期四	279,289
星期五	190,735
星期六	68,714
星期日	182,447

按下星期別按鈕

```
GroupBox2.Text = Button1.Text
l1(1).Text = "星期一" : l1(2).Text = "星期二" : l1(3).Text = "星期三"
l1(4).Text = "星期四" : l1(5).Text = "星期五" : l1(6).Text = "星期六"
l1(7).Text = "星期日"
Dim sum As Integer = 0
For i = 1 To 7 : sum = sum + wk(i) : Next
For i = 1 To 7
    l2(i).Text = Format(wk(i), "###,###")
    lk_l(i).Width = 300 * wk(i) / sum
    lk_l(i).BackColor = Color.FromArgb(255, 0, 0)
    l2(i).Left = lk_l(i).Left + lk_l(i).Width + 5
Next
```

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顯示畫面

The screenshot shows a Windows application window titled "Form1". The window contains a form with the following fields:

- 應檢人資料 (Applicant Information):
 - 姓名 (Name): 蔡濯瑾
 - 准考證號碼 (Exam ID): D9719128
 - 座號 (Seat No): 5
 - 日期 (Date): 97/11/10
- 依車量種類 (By Vehicle Type): A bar chart showing the number of vehicles for each type.

依車量種類	數量
大型車	102,362
小型車	260,173
中型車	289,163
公務車	678,711

按下車輛種類按鈕

```
GroupBox2.Text = Button2.Text
Dim sum As Integer = 0, j As Integer
For i = 1 To 4 : sum = sum + car(i) : Next
For i = 1 To 3
    For j = i + 1 To 4
        If car(i) > car(j) Then
            Dim t As String
            t = cartype(i) : cartype(i) = cartype(j) : cartype(j) = t
            Dim t1 As Integer
            t1 = car(i) : car(i) = car(j) : car(j) = t1
        End If
    Next
Next
Next
```

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按下車輛種類按鈕

```
For i = 1 To 4
    l1(i).Text = cartype(i)
    l2(i).Text = Format(car(i), "###,###")
    lk_1(i).Width = 300 * car(i) / sum
    lk_1(i).BackColor = Color.FromArgb(0, 0, 255)
    l2(i).Left = lk_1(i).Left + lk_1(i).Width + 5
Next
For i = 5 To 7
    l1(i).Text = "" : l2(i).Text = "" : lk_1(i).Width = 0
Next
```

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第二站第二題高速公路車輛統計完整程式VB6

```
Private Sub Form_Load()  
Open "d:\bingdata\title.txt" For Input As #1  
Input #1, a, b, c, d  
t2(0).Text = a  
t2(1).Text = b  
t2(2).Text = c  
t2(3).Text = d  
Close #1
```

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第二站第二題高速公路車輛統計完整程式VB6

```
Open "d:\bingdata\890307.sm1" For Input As #1  
While Not EOF(1)  
Input #1, a, b, c, d, e  
  
carsum(1) = carsum(1) + b '大型車數量總合  
carsum(2) = carsum(2) + c '中型車數量總合  
carsum(3) = carsum(3) + d '小型車數量總合  
carsum(4) = carsum(4) + e '公務車數量總合
```

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第二站第二題高速公路車輛統計完整程式VB6

```
ss = b + c + d + e
If a = "MONDAY" Then wksum(1) = wksum(1) + ss
If a = "TUESDAY" Then wksum(2) = wksum(2) + ss
If a = "WEDNESDAY" Then wksum(3) = wksum(3) + ss
If a = "THURSDAY" Then wksum(4) = wksum(4) + ss
If a = "FRIDAY" Then wksum(5) = wksum(5) + ss
If a = "SATURDAY" Then wksum(6) = wksum(6) + ss
If a = "SUNDAY" Then wksum(7) = wksum(7) + ss
Wend
Close #1
```

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第二站第二題高速公路車輛統計完整程式VB6

```
Dim wksum(7), carsum(4) 'wksum 紀錄星期別累
加
Private Sub C1_Click()
For I = 0 To 6
T1(I).Text = ""
T1(I).BorderStyle = 0 ' 沒有框線
L1(I) = ""
L1(I).BorderStyle = 0 ' 沒有框線
Sh1(I).FillStyle = 1 ' 透明
Sh1(I).BorderStyle = 0 ' 透明
Next I
```

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第二站第二題高速公路車輛統計完整程式VB6

```
Fr1.Caption = C1.Caption
```

```
Dim cs(4)
```

```
For i = 1 To 4
```

```
cs(i) = carsum(i)
```

```
Next
```

```
ss = cs(1) + cs(2) + cs(3) + cs(4)
```

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第二站第二題高速公路車輛統計完整程式VB6

```
Dim cart(4)
```

```
cart(1) = "大型車"
```

```
cart(2) = "中型車"
```

```
cart(3) = "小型車"
```

```
cart(4) = "公務車"
```

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第二站第二題高速公路車輛統計完整程式VB6

```
For i = 1 To 3
For j = i + 1 To 4
  If cs(i) > cs(j) Then
    Dim t
    t = cs(i) : cs(i) = cs(j) : cs(j) = t
    t = cart(i) : cart(i) = cart(j) : cart(j) = t
  End If
Next
Next
```

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第二站第二題高速公路車輛統計完整程式VB6

```
For i = 1 To 4
  L1(i).Caption = cart(i)
  Sh1(i).Width = 3000 * cs(i) / ss
  Sh1(i).FillStyle = 0
  Sh1(i).FillColor = RGB(0, 0, 255)
  T1(i).Left = Sh1(i).Left + Sh1(i).Width + 100
  T1(i).Text = Format(cs(i), "###,###")
Next
End Sub
```

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第二站第二題高速公路車輛統計完整程式VB6

```
Private Sub C2_Click()  
Fr1.Caption = C2.Caption  
L1(0).Caption = "星期一"  
L1(1).Caption = "星期二"  
L1(2).Caption = "星期三"
```

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第二站第二題高速公路車輛統計完整程式VB6

```
L1(3).Caption = "星期四"  
L1(4).Caption = "星期五"  
L1(5).Caption = "星期六"  
L1(6).Caption = "星期日"  
wk = 0
```

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第二站第二題高速公路車輛統計完整程式VB6

```
For i = 1 To 7
    wk = wk + wksum(i)
    T1(i - 1).Text = Format(wksum(i), "###,###")
Next
```

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第二站第二題高速公路車輛統計完整程式VB6

```
For i = 0 To 6
    Sh1(i).Width = 3000 * wksum(i + 1) / wk
    Sh1(i).FillStyle = 0
    Sh1(i).FillColor = RGB(255, 0, 0)
    T1(i).Left = Sh1(i).Left + Sh1(i).Width + 100
Next
End Sub
```

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第二站第二題完整程式(VB.NET)

```
Dim v1(7) As Label, v2(7) As LinkLabel, v3(7)
As Label
Dim cars(4) As Integer, wk_s(7) As Integer
Dim typ(4) As String, t As String
Private Sub Form1_Load(ByVal sender As
System.Object, ByVal e As System.EventArgs)
Handles MyBase.Load
```

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第二站第二題完整程式(VB.NET)

```
Dim i, j As Integer
j = 30
For i = 1 To 7
    v1(i) = New Label() : v3(i) = New Label()
    v2(i) = New LinkLabel() : v1(i).Height = 20
    v1(i).Width = 70 : v1(i).Top = j : v1(i).Left = 50
    v3(i).Height = 20 : v3(i).Top = j : v3(i).Left = 250
    v2(i).Height = 20 : v2(i).Top = j : v2(i).Left = 150 : j += 30
    GB2.Controls.Add(v1(i)) : GB2.Controls.Add(v3(i))
    GB2.Controls.Add(v2(i))
next
```

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第二站第二題完整程式(VB.NET)

```
FileOpen(1, "e:\940307.SM", OpenMode.Input)
Dim ww As String
Dim bi As Integer, mi As Integer
Dim sm As Integer, bu As Integer
cars(1) = 0 : cars(2) = 0 : cars(3) = 0 : cars(4) = 0
For i = 1 To 7
    wk_s(i) = 0
Next
```

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第二站第二題完整程式(VB.NET)

```
Do While Not EOF(1)
    Input(1, ww) : Input(1, bi) : Input(1, mi)
    Input(1, sm) : Input(1, bu)
    cars(1) = cars(1) + bi : cars(2) = cars(2) + mi
    cars(3) = cars(3) + sm : cars(4) = cars(4) + bu
    If wk = "MONDAY" Then wk_s(1) = wk_s(1) +
        bi + mi + sm + bu
    If wk = "TUESDAY" Then wk_s(2) = wk_s(2) +
        bi + mi + sm + bu
    If wk = "WEDNESDAY" Then wk_s(3) = wk_s(3)
        + bi + mi + sm + bu
```

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第二站第二題完整程式(VB.NET)

```
If wk = "THURSDAY" Then wk_s(4) = wk_s(4) + bi +  
mi + sm + bu  
If wk = "FRIDAY" Then wk_s(5) = wk_s(5) + bi + mi +  
sm + bu  
If wk = "SATURDAY" Then wk_s(6) = wk_s(6) + bi +  
mi + sm + bu  
If wk = "SUNDAY" Then wk_s(7) = wk_s(7) + bi + mi +  
sm + bu  
Loop  
FileClose(1)  
typ(1) = "大型車" : typ(2) = "中型車"  
typ(3) = "小型車" : typ(4) = "工務車"  
End Sub
```

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第二站第二題完整程式(VB.NET)

```
Private Sub Button2_Click(ByVal sender As Object, ByVal  
e As System.EventArgs) Handles Button2.Click  
GB2.Text = Button2.Text  
v1(1).text = "星期一" : v1(2).text = "星期二"  
v1(3).text = "星期三" : v1(4).text = "星期四"  
v1(5).Text = "星期五" : v1(6).Text = "星期六"  
v1(7).Text = "星期日"  
Dim i As Integer, total As Integer = 0  
For i = 1 To 7  
total = total + wk_s(i) ' 星期加總  
Next
```

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第二站第二題完整程式(VB.NET)

```
For i = 1 To 7
    v3(i).Text = Format(wk_s(i), "###,###")
    v2(i).Width = 300 * wk_s(i) / total
    v2(i).BackColor = Color.Red
    v3(i).Left = v2(2).Left + v2(i).Width + 10
Next
End Sub
```

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第二站第二題完整程式(VB.NET)

```
Private Sub Button1_Click(ByVal sender As
    Object, ByVal e As System.EventArgs) Handles
    Button1.Click
    GroupBox2.Text = Button1.Text
    Dim i As Integer, j As Integer, k As Integer
    Dim total As Integer = 0
    For i = 1 To 4
        total = total + cars(i)
    Next
```

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第二站第二題完整程式(VB.NET)

```
For i = 1 To 3
  For j = i + 1 To 4
    If cars(i) > cars(j) Then
      k = cars(i) : cars(i) = cars(j) : cars(j) = k
      t = typ(i) : typ(i) = typ(j) : typ(j) = t
    End If
  Next
Next
For i = 5 To 7
  v1(i).Text = "" : v2(i).Text = ""
  v3(i).Text = "" : v2(i).Width = 0
Next
```

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第二站第二題完整程式(VB.NET)

```
For i = 1 To 4
  v1(i).Text = typ(i)
  v3(i).Text = Format(cars(i), "###,###")
  v2(i).Width = 300 * cars(i) / total
  v2(i).BackColor = Color.Blue
  v3(i).Left = v2(2).Left + v2(i).Width + 10
Next
End Sub
```

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