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SWIT: 7

Multi-dimensional array collects string data

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IT-KMITL

Learning Outcome

- Implement a multi-dimensional array for collecting the data
- Implement an application for solving multidimensional array

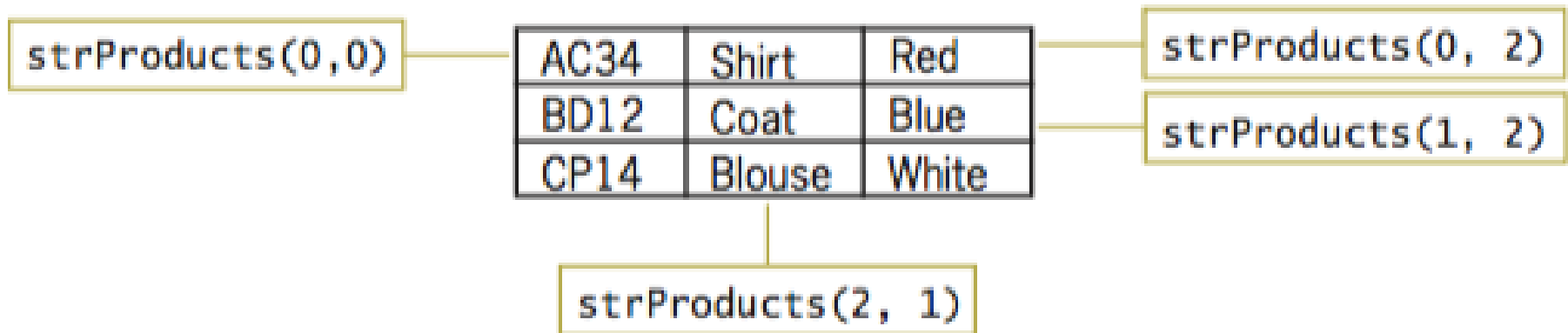
Topic

- Multi-dimensional array collected string
- Dev: 100 words English-Thai dictionary
- Quiz6

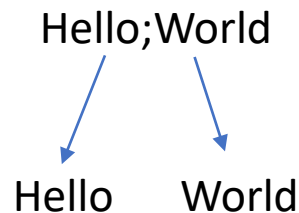
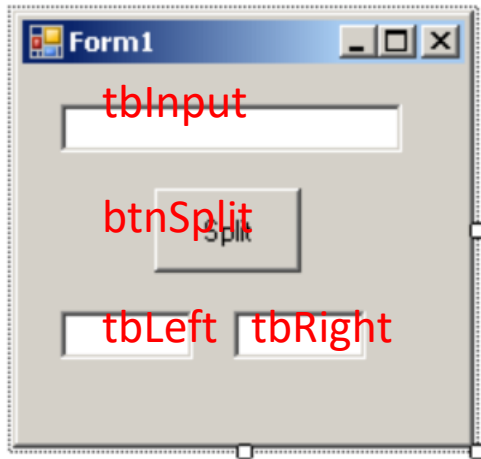
Multi-dimension array

- Two-dimensional array
dim strProduct(3,3) as string
strProduct(0,0) = "AC34"

```
Dim strProducts(,) As String =  
    {"AC34", "Shirt", "Red"},  
    {"BD12", "Coat", "Blue"},  
    {"CP14", "Blouse", "White"}
```



Dev: Text splitter



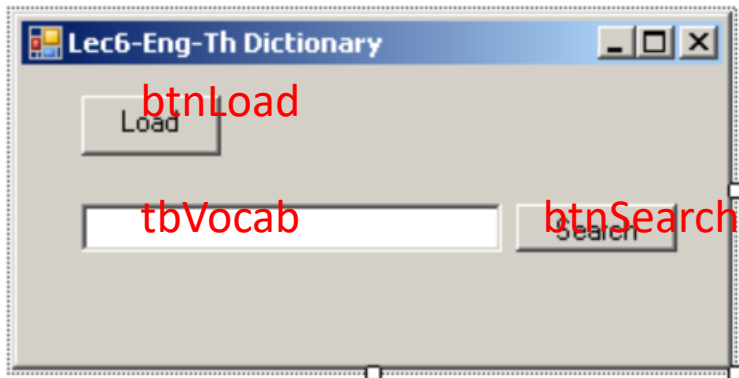
```
Dim str As String = tbInput.Text

'separator ';'
Dim k As Integer
Dim sepLoc As Integer
For k = 0 To str.Length - 1
    If (str(k) = ";") Then
        sepLoc = k
    End If
Next
Debug.WriteLine("Seperate at =" & sepLoc)

'put on partA'
Dim strA(50) As Char
For k = 0 To sepLoc - 1
    strA(k) = str(k)
Next
Debug.WriteLine(" A=" & strA)
tbLeft.Text = strA

'put on partB'
Dim strB(50) As Char
Dim kk As Integer = 0
For k = sepLoc + 1 To str.Length - 1
    strB(kk) = str(k)
    kk += 1
Next
Debug.WriteLine(" B=" & strB)
tbRight.Text = strB
```

Dev: English-Thai Dictionary



```
Public Class Form1
    Dim Vocab(10000, 2) As String
    Dim maxVocab As Integer
    Dim vocab2() As String = {"abandon;ละทิ้ง",
        "ability;ความสามารถ",
        "able;สามารถ",
        "abortion;การแท้ง",
        "about:เกี่ยวกับ",
        "youth;หนุ่ม",
        "zone;โซน"}

    Private Sub Load_Click(ByVal sender As System.Object, ByVal e As EventArgs)
        Dim i As Integer
        'Dim maxlist As Integer = lbVocab.Items.Count
        Dim maxlist As Integer = vocab2.Length
        maxVocab = maxlist - 1
        For i = 0 To maxlist - 1
            'Dim str As String = lbVocab.Items(i).ToString
            Dim str As String = vocab2(i).ToString
            'Debug.WriteLine(lbVocab.Items(i).ToString)
            'separator with ;'
            Dim k As Integer
            Dim sepLoc As Integer
            For k = 0 To str.Length - 1
                If (str(k) = ";") Then
                    sepLoc = k
                End If
            Next
            'Debug.WriteLine("Seperate at =" & sepLoc)
        Next
    End Sub
End Class
```

English-Thai dictionary

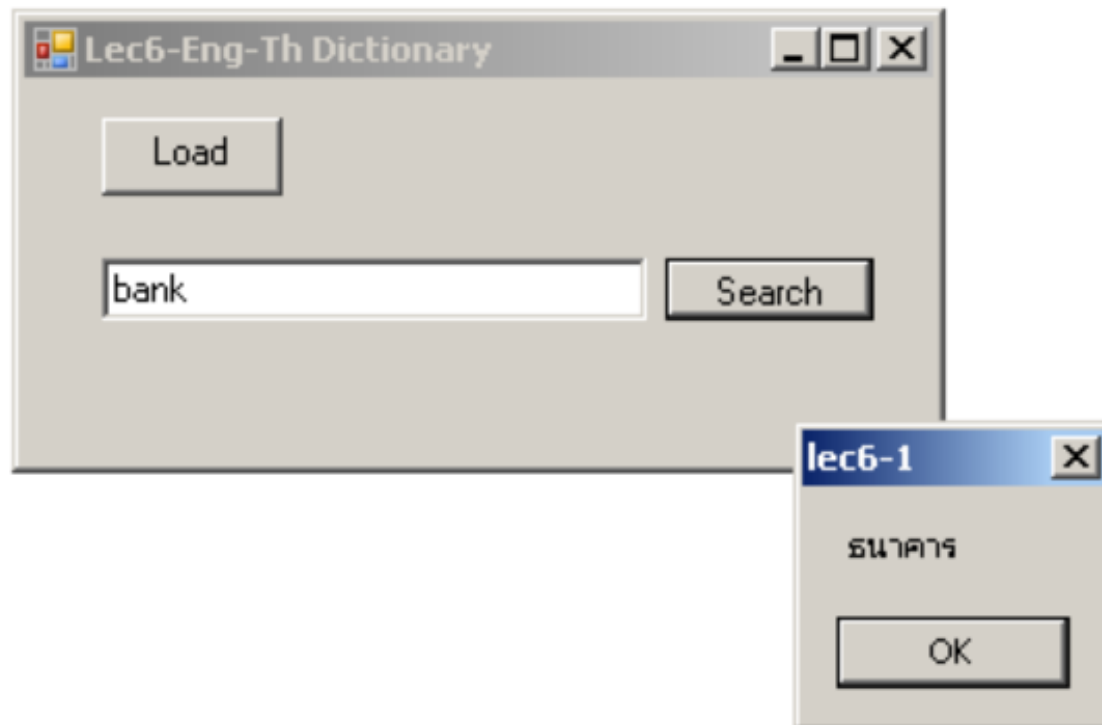
```
'put on partA'
Dim strA(50) As Char
For k = 0 To sepLoc - 1
    strA(k) = str(k)
Next
'Debug.WriteLine("  A=" & strA)
Vocab(i, 0) = strA

'put on partB'
Dim strB(50) As Char
Dim kk As Integer = 0
For k = sepLoc + 1 To str.Length - 1
    strB(kk) = str(k)
    kk += 1
Next
'Debug.WriteLine("  B=" & strB)
Vocab(i, 1) = strB
Next

'check
For i = 0 To maxVocab
    'Debug.WriteLine(Vocab(i, 0))
    'Debug.WriteLine(Vocab(i, 1))
Next
End Sub
```

English-Thai dictionary

```
Private Sub btnSearch_Click(ByVal sender As System.Object, ByVal e As Syst
    Dim i As Integer
    For i = 0 To maxVocab
        'Debug.WriteLine(Vocab(i, 0))
        'Debug.WriteLine(Vocab(i, 1))
        If (String.Compare(Vocab(i, 0), tbInput.Text.ToLower) = 0) Then
            MsgBox(Vocab(i, 1))
        End If
    Next
End Sub
```



Quiz6