Chapter 11

String Functions

❖ Understanding the String Functions

We have learned about the basic concept of function as well as the MsgBox and InputBox functions in Chapter 10. I. In fact, I have already shown you a few string manipulation functions in Chapter 6; they are the Len function, the Left function and the Right Function. In this Chapter, we will learn other string manipulation functions.

11.1 The Mid Function

The Mid function is to retrieve a part of text from a given phrase. The format of the Mid Function is

    Mid(phrase, position,n)

Where

**phrase** is the string from which a part of text is to be retrieved.

position is the starting position of the phrase from which the retrieving process begins.

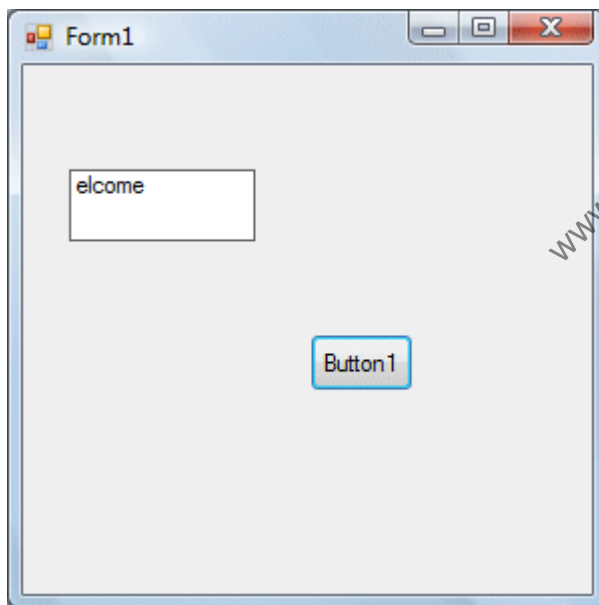**n** is the number of characters to retrieve.

Example 11.1

```
 Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
Dim myPhrase As String
myPhrase = Microsoft.VisualBasic.InputBox("Enter your phrase")
Label1.Text = Mid(myPhrase, 2, 6)
End Sub
```

In this example, when the user clicks the command button, an input box will pop up asking the user to input a phrase. After a phrase is entered and the OK button is pressed, the label will show the extracted text starting from position 2 of the phrase and the number of characters extracted is 6, as shown in Figure 11.1 and Figure 11.2
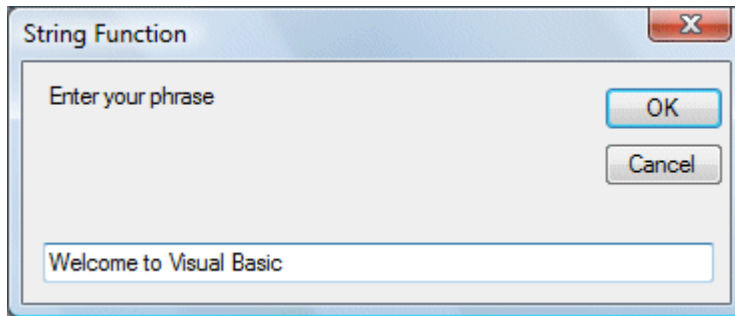
Figure 11.1:

Figure 11.2:

11.2 The Right Function

The Right function extracts the right portion of a phrase. The format is

Microsoft.Visualbasic.Right ("Phrase", n)

Where n is the starting position from the right of the phase where the portion of the phrase is to be extracted. For example:

Microsoft.Visualbasic.Right ("Visual Basic", 4) = asic

For example, you can write the following code to extract the right portion any phrase entered by the user.

```
Private Sub Button1_Click (ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles Button1.Click
    Dim myword As String
    myword = TextBox1.Text
    Label1.Text = Microsoft.VisualBasic.Right (myword, 4)
End Sub
```
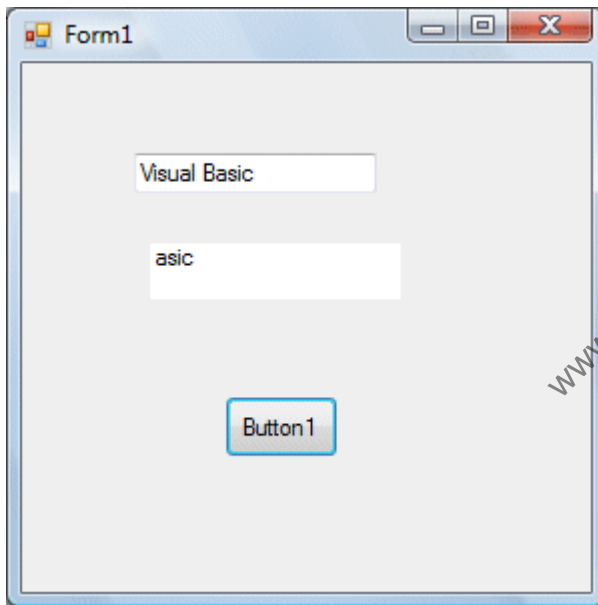
The output is shown in Figure 11.3

Figure 11.3

11.3 The Left Function

The Left function extracts the Left portion of a phrase. The format is

Microsoft.Visualbasic.Left ("Phrase", n)

Where n is the starting position from the right of the phase where the portion of the phrase is going to be extracted. For example:

Microsoft.Visualbasic.Left ("Visual Basic", 4) = Visu

For example, you can write the following code to extract the left portion any phrase entered by the user.

```
Private Sub Button1_Click (ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles Button1.Click
    Dim myword As String
    myword = TextBox1.Text
    Label1.Text = Microsoft.VisualBasic.Left (myword, 4)
End Sub
```
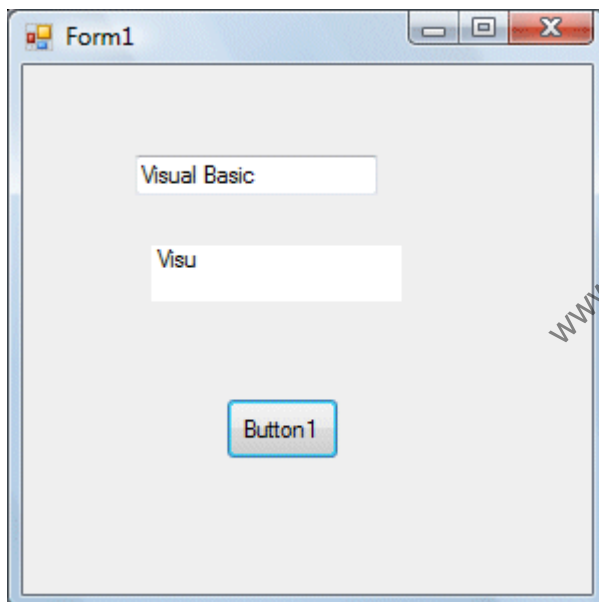
The output is shown in Figure 11.4

Figure 11.4:

11.4 The Trim Function

The Trim function trims the empty spaces on both side of the phrase. The format is Trim("Phrase")
.For example,

Trim ("   Visual Basic   ") = Visual basic

Example 11.2

Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As

System.EventArgs) Handles Button1.Click

Dim myPhrase As String

myPhrase = Microsoft.VisualBasic.InputBox("Enter your phrase")

Label1.Text = Trim(myPhrase)

End Sub

11.5 The Ltrim Function

The Ltrim function trims the empty spaces of the left portion of the phrase. The format is

Ltrim("Phrase")

.For example,

Ltrim ("   Visual Basic")= Visual basic

11.6 The Rtrim Function

The Rtrim function trims the empty spaces of the right portion of the phrase. The format is

Rtrim("Phrase")

.For example,

Rtrim ("Visual Basic   ") = Visual Basic

11.7 The InStr function

The InStr function looks for a phrase that is embedded within the original phrase and returns the starting position of the embedded phrase. The format is

Instr (n, original phase, embedded phrase)

Where n is the position where the Instr function will begin to look for the embedded phrase.

For example

Instr(1, "Visual Basic"," Basic")=8

The function returns a numeric value.

You can write a program code as shown below:

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
Label1.Text = InStr(1, "Visual Basic", "Basic")
End Sub
```

11.8 The Ucase and the Lcase Functions

The Ucase function converts all the characters of a string to capital letters. On the other hand, the Lcase function converts all the characters of a string to small letters.
The format is

> Microsoft.VisualBasic.UCase(Phrase)
>
> Microsoft.VisualBasic.LCase(Phrase)

For example,

Microsoft.VisualBasic.Ucase ("Visual Basic") =VISUAL BASIC

Microsoft.VisualBasic.Lcase ("Visual Basic") =visual basic

11.9 The Chr and the Asc functions

The Chr function returns the string that corresponds to an ASCII code while the Asc function converts an ASCII character or symbol to the corresponding ASCII code. ASCII stands for "American Standard Code for Information Interchange". Altogether there are 255 ASCII codes and as many ASCII characters. Some of the characters may not be displayed as they may represent some actions such as the pressing of a key or produce a beep sound. The format of the Chr function is

Chr(charcode)

and the format of the Asc function is

Asc(Character)

The following are some examples:

Chr(65)=A, Chr(122)=z, Chr(37)=% ,

Asc("B")=66, Asc("&")=38

* For the complete set of ASCII , please refer to Appendix I

Summary

In this chapter, you learned how to use various string manipulation functions.

- In section 11.1, you learned how to use the Mid function to retrieve a part of text from a phrase.
- In section 11.2, you learned how to use the Right function to extracts the right portion of a phrase.
- In section 11.3, you learned how to use the left function to extracts the left portion of a phrase
- In section 11.4, you learned how to use the Trim function to trims the empty spaces on both side of the phrase.
- In section 11.5, you learned how to use the the Ltrim function to trim the empty spaces of the left portion of the phrase.
- In section 11.6, you learned how to use the Rtrim function to trim empty spaces of the right portion of the phrase.
- In section 11.7, you learned how to use the InStr function looks for a phrase that is embedded within the original phrase and returns the starting position of the embedded phrase.
- In Section 11.8, you learned how to use the Ucase function to convert all the characters of a string to capital letters and the Lcase function to convert all the characters of a string to small letters.
- In section 11.9, you learned how to use the Chr function to return the string that corresponds to an ASCII code and the Asc function to convert an ASCII character or symbol to the corresponding ASCII code