Single-line Declarations

Visual Basic permits combining multiple declarations into one statement:

Dim var1 as datatype, var2 As datatype, ..., varN As datatype

When all variables are of the same datatype:
Dim num1, num2, total as double

Is there a number in the textbox?

If IsNumeric(TextBox1.Text) = False Then .....

Is the number between 1 and 10?

If Val(TextBox1.Text) < 1 or Val(TextBox1.Text) > 10 Then
messagebox.show("Please enter a number between 1 and 10")
Exit Sub
Enf If

User Input using InputBox

Dim x as String
x = InputBox("Enter a value", "Input Dialog")

Number only TextBox

Add the following code to a TextBox KeyPress handler:

If Asc(e.KeyChar) < 48 or Asc(e.keyChar) > 57 Then
e.Handled = True
End If

Displaying a form

Enter the following code in Form1:

Dim frmMyForm As New Form2()
MyForm.Show()

Assigning a color

TextBox1.backcolor = System.Drawing.Color.Blue

The intellisence feature of VB will provide you with tens of options as soon as you key in the last dot.

Good Luck

Primitive Data Types

The integral value types:
Byte (1-byte unsigned integer), Short (2-byte signed integer), Integer (4-byte signed integer), and Long (8-byte signed integer).

These types map to System.Byte, System.Int16, System.Int32, and System.Int64, respectively. The default value of an integral type is equivalent to the literal 0.

The floating-point value types:
Single (4-byte floating point) and Double (8-byte floating point).

These types map to System.Single and System.Double, respectively. The default value of a floating-point type is equivalent to the literal 0.

The Decimal type (16-byte decimal value), which maps to System.Decimal. The default value of decimal is equivalent to the literal 0D.

The Boolean value type, which represents a truth value, typically the result of a relational or logical operation. The literal is of type System.Boolean. The default value of the Boolean type is equivalent to the literal False.

The Date value type, which represents a date and/or a time and maps to System.DateTime. The default value of the Date type is equivalent to the literal # 01/01/0001 12:00:00AM #.

The Char value type, which represents a single Unicode character and maps to System.Char. The default value of the Char type is equivalent to the constant expression ChrW(0)

Using Try...Catch blocks

To avoid error messages, use Try...Catch blocks in the following manner:

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click
Try
Dim a As Integer
a = TextBox1.Text
MessageBox.Show(a, Me.Text)
Catch ex As Exception
End Try
End Sub
```

What was the error?

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Button1.Click
Try
Dim a As Integer
a = TextBox1.Text
MessageBox.Show(a, Me.Text)
Catch ex As Exception
MessageBox.Show(ex.Message, Me.Text)
TextBox1.Clear()
End Try
End Sub
```

Explicit Conversions

Use the methods of class Convert.

Example:
number = Convert.ToDouble(txtInput.Text)

Locking Controls

When designing the user interface of your Windows application, you can lock the controls once they are positioned correctly, so that you do not inadvertently move or resize them when setting other properties.

1) Fomat
2) Select Lock Controls

Random Number Generation

Numbers can be generated randomly by using class Random which is located in namespace System.

Dim randObj As Random = New Random()
Dim x As Integer = randomObject.Next(1, 21)

Method Next, here, produces integers in the range 1-20

Method Next generates an integer value between 0 and 2147483647.

When randObj is created, the current time of day becomes the seed value for the calculation.

You can pass your own seed value as an argument:
Dim randObj As Random = New Random(9)

Good Luck

TextBox/Highlight

TextBox1.Focus()
TextBox1.Select()

Good Luck

'Sub Main' was not found

Renaming the class that contains the form's implementation is done by changing the Name property of the form. However, this will display an error message saying that form1 is not found.

To overcome this error:
open the solution explorer
right-click on the projects name
select properties
from the start up object drop down select the new form name

Good Luck

Finding all files in a directory

1) Draw a button and a listbox on the form

2) Add the line before public class:
imports system.io

3) declare the variables in the button's click event
Dim fileArray As String( )
Dim myFile As String

3)continue with this code
fileArray = Directory.GetFiles("c:\")
For Each myFile In fileArray
lstData.items.add(myFile)
Next

Good Luck

Finding all drives on a system

1) Add the following line before public class:
imports system.io

2)Use a block of code similar to finding files and implement step 3

3)Use the Directory class to find for you the drives:
Directory.GetLogicalDrives

Good Luck

Openning a Web site, a file, or a folder

System.Diagnostics.Process.Start("C:\")

AppendText

This method appends text in the parameter to whatever exists in the text box at the time:

Textbox1.AppendText("Your grade is " & grade & ControlChars.NewLine)

Listing files in all directory

```
Dim dir As New DirectoryInfo("c:\")
Dim files As FileInfo() = dir.GetFiles()

Dim file As FileInfo
For Each file In files
ListBox1.Items.Add(file.Name)
Next
```

--Try replacing Name by extension

PictureBox/Run time

The PictureBox is used for displaying pictures.

The following lingo assumes that the file called image.bmp in the current folder.

```
PictureBox1.Image = System.Drawing.Image.FromFile(Application.ExecutablePath &
"\image.bmp")
```

PictureBox/Design time

A bitmap can be added to a PictureBox at design time.

At that point, the bitmap file on disk is not needed anymore.

The bitmap is now stored inside the form binary file called Form1.resx.

PictureBox/Animated Gif

A PictureBox accepts animated gif files.

Data Type/Size/Range

Byte: 1; 0 to 255
Boolean: 2; True or False
Char: 2; 0 to 65535
Short: 2; -32,768 to 32,767
Integer: 4; -2,147,483,647
Single: 4; +/- 3.4E38
Object: 4; Any value

Date: 8; Jan 1, 0001 to Dec 31, 9999
Double: 8; +/- 1.79E308
Long: 8; +/- 9,223,372,038,854,775,807
Decimal: 16; +/-79,228*10^24
String: 2*length; 0 to 2 billion

Examples of Declarations

Dim Married As Boolean
Married = True

Dim MiddleInitial As Char
MiddleInitial = "Z"

Dim BirthDate As Date
BirthDate = #1/1/2002#

Dim Something As Object
Something = "a text message"

Finding all Controls on the Form

For n = 0 to Controls.Count() - 1
Listbox1.Items.Add(Controls.Items(n).Name)
Next

Changing font style

Dim style As FontStyle
style = FontStyle.Bold Or FontStyle.Italic
Dim myFont As Font = New Font("ariel", 14, style)
label1.Font = myFont

Listbox / Inserting an item at a specific location

listbox1.Items.Insert(Index, Item)

Item is the object to be added
Index is the location of the new item

Listbox / How to avoid the insertion of identical objects in the listbox

```
Dim strItem As String = "Hello"

If not ListBox1.Items.Contains(strItem) Then
Listbox1.Items.Add(strItem)
End If
```