

Course Outline

Introduction to VB.net 5 day course (flexible – depending on needs)

Course Description

This course aims to provide an introduction, which will enable delegates to learn the fundamentals of programming in Visual Basic. The course is primarily intended for those who want an introduction to programming concepts. This course can be completed in less time by those delegates who have prior programming experience and want to look at Vb.net for the first time. An understanding of relational database concepts and database products such as Microsoft Access will also be an advantage.

Course Objectives.

By the end of the course delegates will have covered:

- **VB.NET Basics**
Describe what an object is, giving examples • Explain what a control is • Understand the terms property and method • Understand what a class is • Define what an assembly is • Describe what a namespace is
- **Managing Solutions and Projects**
Create a new solution • Open an existing solution • Save a solution • Navigate around a solution using the Solution Explorer • Add projects to a solution • Add items to a project • Describe the types of items available • Remove projects from the solution • Know what kinds of templates exist for projects and solutions • Save projects
- **The Integrated Development Environment**
Understand the Start Page • Customise the IDE • Use the Web Browser toolbar • Understand tabbed documents • Understand the different Explorer's within the IDE • Understand the Code Window • Set properties using the Property Window • Manipulate Toolboxes
- **Forms**
Create a Form Class in a project • Add controls to the form class • Set properties for the controls on the form class • Apply the Hungarian Naming Notation to controls in your application • Align or size controls on a form
- **Code Fundamentals**
Recite some examples of events that occur in VB • Go into the Code Window • Select Class Names and Method Names from the code window • Expand and collapse code segments • Change basic properties from code • Place remarks in your code • Execute basic methods from code • Navigate around the code window using the keyboard and bookmarks
- **Declaring Variables and Constants**
Understand what variables and constants are • Understand the basic data types • Declare a variable • Declare a constant • Understand the scope of variables and constants
- **Basic Building Blocks of Code**
Test conditions using If...Then and Select Case structures • Repeat code using loops like For...Next, While...End While and Do...Loop • Use the With...End With block
- **Using Operators**
Give examples of operators • Understand arithmetic operators • Understand how to join strings together • Compare values using relational operators • Use logical operators and understand the differences between them

- **Manipulating Strings**
Use VB string methods • Create string expressions • Compare strings with the Like operator • Convert strings
- **Manipulating Dates**
Get the current date and time • Display dates in different formats • Perform calculations with dates
- **General Procedures**
Know the difference between a sub procedure and a function • Create a sub or function in a class • Know how to call sub procedures and functions • Know the difference between passing arguments ByVal or ByRef • Add or remove an existing code module to your project
- **Working with Arrays**
Declare an array • Create a dynamic array • Determine the upper and lower limits of a dynamic array • Search through an array • Sort an array
- **Handling Errors and Debugging Code**
Know the different debugging techniques you can employ in VB.NET • Enter break mode • Know the debugging tools available in VB.NET • Understand the different debugging windows • Step through code • Set up breakpoints • Know the keyboard shortcuts that can be used while debugging • Know how to trap errors in code
- **Creating Menu Structures**
Create a menu structure • Attach the form to the menu structure • Add code to a menu structure • Create Context menus • Display a context menu
- **Mouse Properties, Methods and Events**
Change the mouse cursor • Identify the mouse events • Know what order mouse events occur in • Implement Drag-and-drop in an application • Detect which mouse button and keyboard keys were pressed while dragging
- **Responding to the Keyboard**
Identify what keyboard events exist • Define the purpose of the KeyPreview property
- **Working with Windows Forms Dialogue Boxes**
Use the Open dialogue box control
 - Use the Save dialogue box control
 - Use the Font dialogue box control
 - Use the Color dialogue box control
- **Databases and the Server Explorer**
Understand the Server Explorer • Manipulate Tables, Columns, Keys, Indexes, Relationships and Constraints • Use the Database Diagram tool
- **Attaching Forms to a Database**
Give an overview of simple SQL commands • Create a form with the Data Form Wizard • Explain the terms DataTable, DataSet, DataView, DataAdapter and DataConnection • Create a form connected to a DataSet manually
- **Using Crystal Reports to Print From Your Application**
Create a report from a DataSet using the Crystal Report Experts • Identify the different sections of a report • Edit the report once it has been created • Show the report on a form with the CrystalReportViewer control
- **Deploying a Solution**
Create a deployment project • Use the Setup Wizard