.NET Framework

Course code: ET 801

Introduction to Visual Basic .NET Programming

Course Description

This is an introductory class that drills down into the internal workings of Visual Studio .NET to help students get the most out of its features, wizards, editors, and project-management capabilities. Students will learn how to maximize their productivity for any project, no matter where they are in the development cycle

Course Level

Fundamental

Who should attend?

.NET Developer who want to start programming with Microsoft Visual Basic.NET

Pre-requisites

Basic understanding of using windows application

Course Objectives

- Design and set up projects and solutions
- Examine the many wizards designed
- To customize Visual Studio.NET
- Using Visual Basic.NET Syntax
- To use the powerful source-level debugger
- Fundamental of Visual Basic.NET function

Course Durations

18 Hours

Course Outline

1. Visual Studio IDE
- Visual Studio Development Environment
- Visual Studio Tools
- Moving / Resizing the Programming Tools
- Opening a Web Browser in Visual Studio

Hand-On Labs
- *Starting Visual Studio 2005*

2. Writing Your First Program
- Programming Steps
- Creating the User Interface
- Setting the Properties
- Writing the Code
- Running Visual Basic Applications
- Building an Executable File

Hand-On Labs
- *Create Simple Application*

3. Working with Toolbox Controls
- Using the DateTimePicker Control
- Controls for Gathering Input

Hand-On Labs
- *Use .NET Control*

4. Working with Menus, Toolbars, and Dialog Boxes
- Adding Menus Using the MenuStrip
- Adding Access Keys to Menu Commands
- Processing Menu Choices
- Adding Toolbars with the ToolStrip
- Using Dialog Box Controls
- Event Procedures
- Assigning Shortcut Keys to Menus

Hand-On Labs
- *Use Menu in Application*

5. Visual Basic Variables and Fomulas
- Visual Basic Program Statement
- Using Variables to Store Information
- Using Variables in a Program
- Using a Variable to Store Input
- Using a Variable for Output
- Working with Specific Data Types
- Working with Visual Basic Operators
- Working with Methods
- Establishing Order of Precedence

Hand-On Labs
- *Create and use Variables*

6. Using Decision Structures
- Event-Driven Programming
- Using Conditional Expressions
- If&Then Decision Structures
- Detecting Mouse Events

Hand-On Labs
- *Use Decision Structures*

7. Using Loops and Timers
- Writing For&Next Loops
- Writing Do Loops
- Timer Control
- Using a Timer Object to Set a Time Limit
- Inserting Code Snippets

Hand-On Labs
- *Use loop and Timer*

8. Debugging Visual Basic Programs
- Finding and Correcting Errors
- Using Debugging Mode
- Tracking Variables Using a Watch Window
- Visualizers
- Using Immediate / Command Windows
- Removing Breakpoints

Hand-On Labs
- *Debug Application*

9. Trapping Errors by Using Structured Error Handling
- Processing Errors by Using Try& Catch
- Writing a Disc Drive Error Handler
- More Complex Try&Catch Error Handlers
- Comparing Error Handlers
- The Exit Try Statement

Hand-On Labs
- *Handle Application Error*

10. Creating Modules and Procedures
- Working with Modules
- Working with Public Variable
- Creating Procedures
- Writing Function Procedures
- Writing Sub Prodecures
- Passing Arguments by Value
- Passing Arguments by Reference

Hand-On Labs
- *Create Modules and Procedures*

11. Using Arrays to Manage Numeric and String Data
- Working with Arrays of Variables
- Preserving Array Contents
- Processing Large Arrays

Hand-On Labs
- *Use .NET Array*

12. Working with Collections and the System.Collections Namespace
- Working with Object Collections
- Creating Your Own Collection
- Visual Basic for Applications Collections

Hand-On Labs
- *Use .NET Collection*