

Dot Net Framework 4.0: Advanced Microsoft VB.NET Windows Application Development

Duration: 90 Hours

What you will learn

This course is your first step towards success as a Dot Net professional, designed to give you a firm foundation in basic Dot Net framework. In this class, you'll learn how to install and maintain Dot Net framework, to develop web application. You will gain conceptual understanding of Dot Net Technologies and how its components work and interact with one another. You will also learn how to create a web application and window application in an effective and efficient manner including developing web service, application software's, database connectivity's and deploying Dot Net applications. The lesson topics are reinforced with structured hands-on practices. This course is designed to provide depth knowledge on Dot Net technologies, and to make you an expert on these technologies.

Learn To

Install Dot Net framework

Basic coding standards

Database connectivity

Application Development

Deploying software/Application

Scope

Software Architect

Windows Application Developer

Dot Net Programmer

Technical consultant

Software Associate

Software Engineer

Prerequisites

Basic Programming Knowledge

Course Objectives

To understand;

Basic functioning in Dot Net Framework 4.0

Web & window application development

Database connectivity development

Deploying the Dot Net developed application.

Course Topics

Introducing Visual Basic 2010

Exploring New Features in Visual Basic 2010

Support for Dynamic Data Types

Covariance and Contra variance

Support for Implicit Line Continuation

Auto – Implemented Properties

Collection Initializers

Multiline Lambda Expressions

New Command-line Compiler Options

Type Equivalence Support

Identifiers and Keywords

Visual Basic Statements

Statement Syntax

Creating a Console Application

The Option and Imports Statements

The Option Statement

The Imports Statement

Exploring Namespace

Understanding System Namespace

Creating Aliases for Namespace Classes

Data Types

Variable and Constants

Declaring Variables

Declaring Constant

Declaring Variables and Constants

Data Type Conversion

Operators

Operator Precedence

Arrays

Standard Arrays

Dynamic Arrays

Creating Standard Arrays

Creating Dynamic Arrays

Enumeration

Strings

Using the Val and Str Functions

Commenting Your Code

Windows Forms in Visual Basic 2010

Exploring Windows Forms

Creating Window Forms Application

Adding Controls to Windows Forms

Disabling and Enabling Windows Forms

Changing the Title of Windows Forms

Setting the Border of Windows Forms

Displaying and Hiding the Maximize, Minimize and Close Buttons of Windows Forms

Specifying the Initial Position of Windows Forms

Creating Multiform Windows Application

Displaying Messages

Using Windows Forms to Create Dialog Boxes

Creating Owned Windows Forms

Creating Always-on-top Windows Forms

Performing some common operations on controls

Handling Common Events for Window Forms and Controls

Specifying the Mouse Cursor for Windows Forms and Controls

Windows Forms Controls – I

The Control Class

The Button Control

The Label Control

The Textbox Control

The Rich textbox Control

The Masked Textbox Control

Exploring the List Box Control

Explaining the Checked List Box Control

Exploring the Combo Box Control

Windows Forms Controls – II

Defining the Radio Button Controls

Describing the Check Box Controls

Exploring the List View Controls

Defining the Tree View Controls

Describing the Panel Control

Exploring the Group Box Control

Explaining the Tab Control

Windows Forms Controls – III

The Image List Control

The Picture Box Control

The Month Calendar Control

The Date Time Picker Control

The Timer Control

The Progress bar Control

Windows Forms Controls – IV

Tool Strip Control

The Tool Strip Item Class

The Menu Strip Control

The Tool Menu Strip Item Class

The Context Menu Strip Control

The Status Strip Control

The Dialog Box Controls

The My Object

My. Computer Object

My. Application Object

My. Forms Object

My. User Object

My. Resources Object

My. Web Services Object

Introducing Windows Presentation Foundation

New Features of WPF 4.0

WPF 4.0 Architecture

WPF 4.0 Class Hierarchy

WPF 4.0 Application Model

Exploring the WPF 4.0 Designer Interface

Working with WPF Windows

Using XAML in WPF 4.0 Applications

WPF Properties

WPF Events

Working with Dialog Boxes in WPF Application

Compiling and Running WPF 4.0 Applications

Working with WPF 4.0 Controls, Resources, Styles, Templates and Commands

WPF 4.0 Controls

Container Controls

Simple Controls

Content Controls

Headered Content Controls

Item Controls

Headered Item Controls

Miscellaneous Controls

Password Box Controls

Slider Control

View Box Control

Expander Control

Navigation Window and Frames Controls

Calendar and Data Picker Controls

Resources

Styles and Templates

Triggers

WPF Commands

Interoperability between Windows Forms and a WPF 4.0 Application

Working with Typography and Documents in WPF

Typography and its features

Important Classes of Typography

Working with Typography

WPF 4.0 Documents

Working with Documents

Document Serialization and Storage

.NET and SQL Server

Exploring the Microsoft.Sqlserver. Server Namespace

Exploring Stored Procedures

Exploring Triggers

Exploring User – Defined Aggregate Functions

Exploring UDF

Exploring UDT

Using XML Data in SQL Server

Data Access with ADO .NET

Understanding Databases

Understanding SQL

Understanding ADO. NET

Creating Connection Strings

Creating a Connection to the Database

Creating a Command Object

Working with Data Adapters

Using Data Reader to work with Databases

Working with LINQ

Defining LINQ Queries

Standard Query Operators

Introducing LINQ to Objects

Introducing LINQ to ADO.NET

Introducing LINQ to XML

The LINQ Data Source Control

Extension Methods

Lambda Expression

Comparing Lambda Expressions with Anonymous Methods

Introducing PLINQ

Collections and Generics

Understanding Collections

Collection Classes in .NET

Understanding Generics

Generic Collection classes in .NET

Creating your own Generic Collection Classes

Covariance and Contra variance in Generics

Threading

Thread Class

Difference between Process and Threads

Working with a Thread

Multi-threading

Thread Priorities

Thread States

Thread Synchronization

Joining Threads

Working with Assemblies

.NET Assemblies

Types of Assemblies

Creating a Multi file Assembly

Navigate Image Generation

Attributes of an Assembly

Assembly Signing

Storage for Assemblies

Assembly Information File

Configuration Files for Assemblies

Configuring Assembly Lookup

Configuring Code base Setting Manually

Creating Publisher Policies

Working with Windows Workflow Foundation

Listing New Features of WF 4.0

Describing Components of WF 4.0

Exploring Activities

Describing Types of Workflows

Exploring Built-in Activities

Understanding Bookmark Activities

Handling Runtime Errors

Hosting Workflows