

NET FRAMEWORK 4.0 AND VISUAL STUDIO 2010

Training Program Schedule

Duration: 60 Hours

Chapter - I: .NET Framework Fundamentals

- Introduction to .NET Framework
- Applications of .NET, Before .NET
- .NET Versions, Visual Studio Basics
- .NET Advantages, .NET (vs) Java, .NET Framework in-depth
- .NET Framework Architecture, Assemblies and MSIL in-depth
- Run Time Execution Environment, Components of CLR, FCL Architecture

Chapter - II: C# Fundamentals

- Getting Started with Visual Studio 2010, Visual Studio 2010 IDE
- C# Introduction
- Keywords, I/O Statements, Comments
- Data Types, Variables, Type Casting
- Object class methods, Scope of Variables, Operators, Control Statements
- Enumerations and Arrays
- Main() method in-depth
- Classes and Objects, Creating own classes
- Parameters and Method Overloading
- Properties
- Constructors and Destructors
- Structs
- Partial Classes and Static Classes
- Introduction to Inheritance, Visibility Modifiers and Simple Inheritance
- Hierarchical, Multi-Level and Hybrid Inheritance
- Hiding methods, Method Overriding, Abstract Classes and Methods
- Sealed Classes and Interfaces
- Delegates
- Array Class
- Strings
- Date Time and Random Classes
- Generics
- Collections
- LINQ
- Exceptions
- Debugging, Break points, Immediate window

- Multi Threading
- Multi Threading
- Assemblies
- Assemblies
- Manipulating Drives
- Manipulating Folders
- Manipulating Files and File Streams
- Application Configuration

Chapter - III: Windows Applications Development using C#

- Getting started with Windows Applications
- The Form Class
- Events
- Multiple Forms Handling and Invoking Forms at Run Time
- Standard Controls (Label, Button, Textbox, MaskedTextBox, PictureBox)
- Selection Controls (Checkbox, Radiobutton, Listbox)
- Selection Controls (Combobox, NumericUpDown, DomainUpDown and TrackBar)
- DateTimePicker, MonthCalendar, TreeView
- Background Processing Controls (Timer and ProgressBar, NotifyIcon)
- Dialog Controls (ColorDialog, FontDialog, OpenFileDialog, SaveFileDialog, PrintDialog)
- Grouping Controls (Panel, Groupbox, TabControl) and TreeView
- Strip based Controls (MenuStrip, ContextMenuStrip, ToolStrip, StatusStrip) and MDI Applications
- RichTextBox and “Sample Text Editor” Application.
- User Controls
- Windows Forms Control Library
- Creating Graphics with GDI+

Chapter - IV: Windows Mobile Applications Development using C#

- Windows Mobile Applications Basics
- Development of Windows Mobile Applications
- Windows Mobile Controls
- Running Applications on the Real Devices

Chapter - V: Data Access using C# with ADO.NET support

- Sql Server Basics
- ADO.NET Basics and Library
- ADO.NET Database Connection
- Query Processing using Command Class
- Non-Query Processing using Command Class
- Working with DataAdapter, DataSet, DataTable, DataRow, DataColumn
- Working with Stored Procedures and Functions
- Menu Navigated Database Application Development and Crystal Reports

Chapter - VI: Web Sites Development using ASP.NET

- HTML, JavaScript, ASP, and ASP.NET Introduction
- Getting started with ASP.NET
- Advantages of ASP.NET, Traditional Web Sites Development in ASP.NET
- Page Life Cycle, Implicit Objects
- Web Controls
- Database Applications in ASP.NET using ADO.NET, Data Controls
- Validation Controls
- Navigation Controls
- Login Controls
- Reporting Controls
- GridView in depth
- User Controls
- Master Pages
- Cascading Style Sheets (CSS)
- Themes
- Skins
- Web Site Configuration
- View State and Cookies
- Session State and Application State
- Caching
- XML
- XML with DataSet

Chapter - VII: Web Services Development using ASP.NET

- Web Services Introduction
- Getting started with Web Services
- Development of Web Services
- Dynamic Web Services

Chapter - VIII: ASP.NET AJAX

- AJAX Basics and Advantages
- AJAX Extensions
- AJAX Control Toolkit

Chapter - IX: Windows Services Development using C#

- Windows Services Basics
- Development of Windows Services
- Chat Service Development

Chapter - X: VB.NET Programming

- VB.NET Introduction
- C#.NET (vs) VB.NET
- Console Application Development in VB.NET
- Variables, Operators, Control statements and Arrays
- Method, Module and Class Development
- Method overloading, Constructors and Destructors
- Inheritance and Interfaces
- Windows Application Development
- Database Interactive Programming
- Web Application Development