

C#.NET Course Content

Introduction/Overview of .Net

- Introduction to .Net
- Platform for the .Net
- Drawbacks of Current Trend
- Net Framework – BCL & CLR | Key design goals □ CLR, CTS, MSIL & other tools.
- Multiple Language Interaction & support | Moving from Project to Assemblies...
- Security in .NET – CAS

.Net Framework [Advanced]

- Advantages/Disadvantages
- Features of .Net
- Assemblies in Detail
- GAC, Strong Names
- Language Interop
- Reflection

Visual C#.Net Language

- Advantages/Disadvantages
- Why C#/ Why Not C#
- Where does C# Fit in
- C, C++ to Visual C#
- Features of C#
- .NET Namespaces

.Net Installations/C#.Net

- .NET Versions – 1.1/2.0/3.0/3.5 Beta
- Visual Studio.NET 2003/2005/Orcas/2008
- Windows Vista – New Look
- Gadgets/SideBars/UAC – relation with .NET
- Hardware/Software Requirements
- FAQ's with detailed answers

Programming Using Visual C#.Net

- The start of the application
- C#.Net Program Design
- Variables and types
- Value types and reference types (CTS)
- Strings and arrays
- The Console class
- String formatting
- Statements and flows
- Programming Structures
- Command-line arguments
- VS.NET to Create C#.NET Apps
- C# 3.0/3.5 features – Implicit types , Extension Methods and more

ASP.NET Course Content

- Introduction of .NET Framework
- CLR (Common Language Run time Environment)
- CLR Services
- Just In time Compiler
- Assembly Concepts
- Syntax and Data types Reference
- Classes and Objects in C# (C Sharp)
- Class Property Development
- Access Modifier
- CTS (Common Type System) & CLS (Common Language Specification)
- Inheritance
- Abstract and Sealed Classes in C# .NET
- Interface
- Namespaces in .NET framework
- Partial Classes
- Collection Classes

- Boxing and Unboxing
- Delegates in .Net
- File handling
- Web Pages
- Introduction
- Data Types
- Variable Declaration and Instance
- Conditional Statements
- Looping
- Procedure
- Function
- Array Handling in C Sharp
- Working with Classes and Objects
- Windows Forms
- Web Pages
- Managing IIS (Internet Information Server)□
- Data transfer Between Server and Client□
- Dynamic use of get Method□
- Navigation from html to HTML Controls□
- Concepts ofPostBack in Asp .Net□
- Previous Page Controls Concepts□
- State management through View State□
- Dynamic Event Merging in Microsoft .NET□
- Data Binding Concepts□
- Rich Server Controls□
- Dynamic Creation of Controls□

- Dynamic Event Handling□
- Validating Page through Validation Controls□
- Separate Block of Validation□
- Understanding Classes□
- Generating and Consuming DLL□
- Web user Control□
- Generating Property within Classes□

Handling of Child Control in Parent□

- XML Concept□
- XSLT□
- Using Master Pages□
- Master Page Nesting□
- Applying Navigation Controls , menu, TreeView□
- Giving Sitemap□
- Managing WEB.config & Global.asax□

ASP.NET MVC Course Content

1. Introduction to MVC

- A Brief History of Web Development
- Traditional ASP.NET Web Forms
- Benefits of ASP.NET MVC

2. MVC Architecture

3. The MVC Pattern

- The MVC architecture pattern
- Domain models and Repositories

4. Essential Language Features

- Automatically Implemented Properties
- Using Object and Collection Initializers
- Entity Framework
- Lambda Expressions

5. Working with Controllers

- Introducing the Controller

6. Model Templates

- Template View Helpers
- Using Metadata for Data Values

7. Model Validation

- Explicitly Validating a Model
- Displaying Validation Messages
- Alternative Validation Techniques
- Security and Authentication

8. Working with Views

- Working with the ASPX engine
- Working with the Razor Engine
- Converting ASPX View to Razor View
- Partial Views
- Adding Dynamic Content to a Razor View o Inline code

9. Working with URLs and Routing

- About Routing
- Understanding the Routing Mechanism
- Adding a Route Entry
- Using Parameters
- Using Defaults
- Using Constraints

10. Working with Areas

- Setting Up Areas
- Actions in Areas
- Routing and URL Generation with Areas

11. Ajax and Client Scripting □ ASP.NET MVC's Ajax Helpers

- Using jQuery with ASP.NET MVC

12. Security

- Authentication
- Authorization
- Cross-site scripting (XSS)

SQL Server Content

Introduction To TSQL

- History and Features of TSQL
- Types Of TSQL Commands
- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Data Query Language (DQL)
- Data Control Language (DCL)
- Transaction Control Language (TCL)
- Database
- Creating Database
- Altering Database
- Deleting Database
- Constrains

- Procedural Integrity Constraints
- Declarative Integrity Constraints
- Not Null, Unique, Default and Check constraints
- Primary Key and Referential Integrity or foreign key constraints
- Data Types In TSQL
- Table
- Creating Table
- Altering Table
- Deleting Table

Data Manipulation Language

- Insert
- Identity
- Creating A Table From Another Table
- Inserting Rows From One Table To Another
- Update
- Computed Columns
- Delete
- Truncate
- Differences Between Delete and Truncate

Data Query Language (DQL)

- Select
- Where clause
- Order By Clause
- Distinct Keyword
- Isnull() function
- Column aliases
- Predicates □ Between ... And
- In
- Like
- Is Null

Built In Functions

- Scalar Functions
- Numeric Functions
- Character Functions
- Conversion Functions
- Date Functions
- Aggregate Functions
- Convenient Aggregate Functions
- Statistical Aggregate Functions

- Group By and Having Clauses □ Super Aggregates □
Over(partition by ...) Clause □ Ranking Functions
- Common Table Expressions (CTE)