

# .NET 2.0 & 3.5 PROGRAMMING WITH VISUAL STUDIO 2008 TRAINING COURSE

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**AUDIENCE** : Application programmers and fresher who will use the .Net to develop robust platform independent applications or Developers who need to realize the full potential of Windows ,Web and Console within their .NET projects.

**PREREQUISITES** : Anyone who has knowledge of C and C++. Delegates should have attended some course on that or have a similar level of knowledge.

**DURATION** : Total 160 hours.

**OBJECTIVES** : This intense course will give .Net programmers an introduction to the different application using .Net Framework. Students will be able to develop applications with these technologies, or be ready for more advanced instruction in areas such as Distributed web application development.

## Introduction

- .NET and Visual Studio 2008
- .NET Projects
- .Common Language Runtime
- Intermediate Language
- .NET Languages
- IntelliSense

- **Creating Projects**
- **Project Anatomy**
- **Using the IDE**

## **Fundamentals**

- **Introduction to C#/VB.NET**
- **.NET Framework Class Library**
- **Value and Reference types**

## **Language Syntax**

- **C# v/s VB**
- **Comments**
- **Data Types**
- **Variables**
- **Operators**
- **Conditional Statements**
- **Looping Structures**
- **Functions**
- **Exception Handling**

## **Create Reusable Objects in VB / C#**

- **Object Oriented Programming**
- **Structures and Classes**
- **Visual Studio Class Diagrams**
- **Partial Classes**
- **Methods, Properties and Events**
- **Constructors**
- **Enumerations**
- **Reference vs. Value Types**
- **Structures**
- **Namespaces**
- **Inheritance**
- **Polymorphism**
- **Interfaces**
- **Collections**
- **Generics**

## Newer Language Features

- **Lambda Expressions**
- **Extension Methods**

## Error Handling

- **Creating Robust Applications**
- **Exception Handling**
- **Try/catch/finally**

## Debugging Applications

- **Breakpoints**
- **Stepping through code**
- **Data Tips & Visualisers**
- **Watch windows**
- **Command Windows**
- **Call Stack**

## Windows Presentation Layer

- **Creating WinForms Applications**
- **Displaying and Updating Data**
- **Validating user input**
- **Object Binding (connecting Controls to Data)**

## Scaleable Application Development

- **Creating Layered Applications**
- **Presentation / Business / Data Access Layers**

## Accessing Databases

- **Creating a Data Access Layer**
- **Create/Read/Update/Delete Data**
- **ADO.NET types**
- **Using SQL Statements and Stored Procedures**

## Creating Business Layer

- **Business Objects**
- **Creating Class Libraries**
- **Collections of Objects**

## **Web Presentation Layer**

- **Creating WebForms Applications**
- **Displaying and Updating Data**
- **Validating user input**
- **Object Binding (connecting Controls to Data)**

## **ASP.NET Introduction**

- **HTML & Server controls**
- **Postbacks**
- **Page Lifecycle**

## **User Interface Development**

- **Master Pages**
- **Themes**
- **User Controls**
- **Navigation**
- **Validation**

## **Configuration**

- **Configuration Files**
- **Developer Settings**
- **Administration Tools**

## **Membership & Personalisation**

- **Membership Providers**
- **Login Controls**
- **Roles**
- **State Management**
- **Personalization**

- **Web Parts**

## **Create Distributed Services**

- **Web Service Development**
- **Creating Web Service Clients**

## **Versioning and Deployment**

- **Private and Shared Assemblies**
- **Versioning**
- **Deploying Applications**
- **Setup Projects**

## **Create Rich Client Applications**

- **Windows Presentation Foundation (WPF)**
- **Declarative Programming**
- **Imperative Programming**

## **Using LINQ**

- **Introduction to LINQ**

## **Additional Topics**

- **HTML**
- **JavaScript**
- **Ajax**
- **SQL server 2005**