

Core C# Programming Language

- ❖ Introduction of .Net Framework 4.5
- ❖ Features Of Dotnet 4.5,
- ❖ CLR,CLS,CTS, MSIL,
- ❖ Compiler With Types,
- ❖ Assembly With Types

Basic Concepts

- ❖ Decision Constructs,
- ❖ Looping,
- ❖ Switch,
- ❖ Operator

Core C# Programming Constructs

- ❖ Array /ENUM,
- ❖ Structure Type,
- ❖ Value Types And Reference Types,
- ❖ Nullable Types

Understanding Object Lifetime

- ❖ Classes, Objects, And References,
- ❖ Static Keyword,
- ❖ Access Modifiers,
- ❖ Constructors,
- ❖ Constructor,
- ❖ Polymorphism,
- ❖ Interface/Abstract class
- ❖ OOPS Feature

Exception Handling

- ❖ Bugs, And Exceptions,
- ❖ The Finally Block,
- ❖ Unhandled Exceptions

Advance C# Programming Language

- ❖ Collections and Generics,
- ❖ Types Of System.collections,
- ❖ The boxing, unboxing,
- ❖ Type Safety
- ❖ Strongly Typed Collections,
- ❖ The System.collections.generic
- ❖ Custom Generic Methods,
- ❖ Generic Interfaces.

Delegates, events, and lambdas

- ❖ The system.multicastdelegate,
- ❖ Delegate covariance,
- ❖ Understanding c# events,
- ❖ Lambda operator
- ❖ Anonymous methods

Type reflection, late binding

- ❖ Understanding reflection,
- ❖ Custom metadata viewer
- ❖ Late & early binding,
- ❖ Attributed programming,
- ❖ Custom attributes

Building multithreaded applications

- ❖ Process/appdomain/context,
- ❖ Creating secondary threads
- ❖ Timer callbacks

File i/o and isolated storage

- ❖ Exploring the system.io namespace,
- ❖ The directoryinfo type,
- ❖ The fileinfo class ,
- ❖ The driveinfo class type

Sql query

- ❖ Basic query of pl/sql ,
- ❖ Constraint ,
- ❖ Joins
- ❖ Triggers ,
- ❖ Store procedure and function,
- ❖ Cursor
- ❖ Transaction,
- ❖ Normalization ,
- ❖ Xml ,
- ❖ Sub query

ADO .NET

- ❖ Connected layer of ado.net,
- ❖ Database Transactions
- ❖ The Disconnected Layer of ADO.NET
- ❖ Datatables,
- ❖ Revisiting autolotdal.dll,
- ❖ N-TIER architecture

Programming with the LINQ APIs

- ❖ Linq to sql,
- ❖ Linq to objects,
- ❖ Linq to entity
- ❖ Linq to dataset,
- ❖ Linq to xml

Desktop User Interface

- ❖ Programming with windows forms
- ❖ The windows forms namespaces,
- ❖ The anatomy of a form,
- ❖ Rendering graphical data using GDI+
- ❖ Menu,
- ❖ MDI parent ,
- ❖ Responding to mouse and keyboard activity
- ❖ Designing dialog boxes ,

Introducing WPF and XAML

- ❖ Wpf control library,
- ❖ Introducing wpf and xaml
- ❖ The syntax of XAML,
- ❖ Simplexamlpad.exe
- ❖ Microsoft expression blend,
- ❖ Declaring controls in xaml
- ❖ Binding UI elements to xml documents

WPF 2D graphical rendering & resources

- ❖ Wpf graphical rendering services,
- ❖ Control's ui using templates
- ❖ Exploring the shape-derived types ,
- ❖ Working with wpf brushes
- ❖ Working with wpf pens,
- ❖ Exploring the drawing-derived types
- ❖ The role of ui transformations,
- ❖ Wpf's animation services
- ❖ Wpf resource system,
- ❖ Styles for wpf controls

Web Application with ASP. NET 4.6

- ❖ The role of HTML,
- ❖ The form data (Get and Post)
- ❖ The asp.net namespaces,
- ❖ Building asp.net web pages
- ❖ The Life cycle of an ASP.NET web Page,
- ❖ The Role of the Web.Config file

ASP.NET web controls, themes & Master Page

- ❖ Stylesheet (css 3.0)
- ❖ Server Control Themes
- ❖ Master Page

Web site navigation

- ❖ The navigation controls,
- ❖ Xml site maps
- ❖ The menu and treeview controls,
- ❖ Url mapping ,
- ❖ Building a navigable web site,
- ❖ Security trimming
- ❖ Trapping the sitemapresolve event.

State management

- ❖ Viewstate,
- ❖ Hiddenfield,
- ❖ Querystring,
- ❖ Application,
- ❖ Using browser cookies,
- ❖ Using session state,
- ❖ Profile
- ❖ Configuring session state,
- ❖ Tracking session state

Security with ASP.NET 4.6

- ❖ Page tracing,
- ❖ Application tracing,
- ❖ Unhandled exceptions
- ❖ Debugging with visual studio,
- ❖ Error pages,
- ❖ Diagnostics and plumbing

Security

- ❖ Using the login controls,
- ❖ Configuring forms authentication
- ❖ Cookieless forms authentication,
- ❖ Authorizing by role
- ❖ Asp.net membership,
- ❖ Using profiles,
- ❖ Using session state

Server-side asp.net ajax

- ❖ Server-side ajax vs. Client-side ajax,
- ❖ Using the updatepanel control
- ❖ Specifying updatepanel triggers,
- ❖ Nesting updatepanel controls
- ❖ Updatepanels and javascript ,
- ❖ Updatepanel page execution lifecycle
- ❖ Updatepanel errors gracefully,
- ❖ Using the timer control
- ❖ Using the updateprogress control,
- ❖ Asp.net ajax control toolkit

Javascript & jquery

- ❖ Introduction of javascript,
- ❖ Datatype ,
- ❖ JQueryui controls
- ❖ Javascript dialog box,
- ❖ Why jquery,
- ❖ JQuery library
- ❖ JQuery with ajax

Xml programming

- ❖ Dtds & xsds,
- ❖ Parsers,
- ❖ Sax model,
- ❖ Dom model,
- ❖ Xml programming in .net,
- ❖ Xml readers,
- ❖ Xml serialization

Caching application pages and data

- ❖ Overview of caching,
- ❖ Using page output caching
- ❖ Specifying the cache location,
- ❖ Page output cache file dependency
- ❖ Using partial page caching,
- ❖ Using datasource caching
- ❖ Using data caching
- ❖ Using sql cache dependencies

Advance ASP.NET 4.6

- ❖ Architecture,
- ❖ Wsdl, soap, uddi
- ❖ Web services
- ❖ Web client,
- ❖ Windows client,
- ❖ Caching web services
- ❖ Publishing and consuming services,
- ❖ Security in web services

Wcf with c#

- ❖ Introduction to wcf,
- ❖ Hosting and calling wcf services
- ❖ Wcf security,
- ❖ Restful servicesZ
- ❖ Sessions and transactions
- ❖ Bindings and contracts,
- ❖ Diagnostics and message patterns

Silverlight

- ❖ Comparing wpf and silverlight,
- ❖ Creating a silverlight project
- ❖ Navigation,
- ❖ Using system.net to access the service
- ❖ Browser integration,
- ❖ Calling out to javascript
- ❖ Javascript calling silverlight,
- ❖ Silverlight browser applications
- ❖ Creating an ado.net entity data model,
- ❖ Calling wcf services
- ❖ Wcf service for silverlight clients
- ❖ Using wcf data services

Entity framework

- ❖ Entity framework introduction,
- ❖ Additional features
- ❖ Modeling techniques
- ❖ Crud operations,
- ❖ Crud operations with bo class
- ❖ Stored procedure execution,
- ❖ Querying database

Mvc 5.0

- ❖ Introduction,
- ❖ First mvc application,
- ❖ Exploring controllers
- ❖ Exploring razor views,
- ❖ Digging into htmlhelper methods
- ❖ Understanding model binders,
- ❖ Validation and annotations
- ❖ Sample project in mvc
- ❖ Using entity framework,
- ❖ Authentication and authorization
- ❖ Url routing,
- ❖ JQuery and ajax,
- ❖ Bundling and minification
- ❖ Web api

Advance Program

- ❖ Bootstrap & Responsive
- ❖ Parallel computing using linq
- ❖ Dynamic programming
- ❖ Chat server programming
- ❖ Dynamic data binding controls
- ❖ Workflow
- ❖ Work flow foundation(wff)
- ❖ Multi-threaded socket programming