

C# and DOT NET Course



Course Curriculum and Duration:

We provide both Class-room Training and Offline Training.

Duration: 60Hrs.

Week days (Mon- Fri 2Hrs per day)

Weekend batches (Sat-Sun 4Hrs per day)

About INNOVATIVE ACADEMY

INNOVATIVE ACADEMY is a best training institute in Bangalore. We providing classroom led training live instructor-led interactive online training and cooperate training. We cater to professionals and students across the globe in categories like AWS, Angular JS, JAVA, DOT NET, MCSA, CCNA, A+, N+, Databases, VMware, Mobile Technologies, Project Management and Programming.

About Course

Acquire knowledge of how to develop highly reliable and secure websites and web applications using .Net Platform. Dot net is a framework where programmers can create software applications and run programs. The applications developed under dot net are language independent as the dot net framework includes a huge library of programming language that allows interoperability. C#.NET, VB.NET, J#.NET is the languages that run effectively on dot net framework.

C# Course Syllabus

Chapter 1: An Introduction to C#

Learning Objectives – In this module you will learn introduce you to .NET framework using C# language. You will also learn to create a web based application using .NET framework.

Topics – What is .NET? , What is the CLR? , Primitive Types, Namespaces, Statements and Expressions, Operators

Practical's to be covered- installation of visual studio, programs on c#

Chapter 2: Classes and Objects

Learning Objectives – In this module you will learn oops concepts Abstraction, Encapsulation, Inheritance and Polymorphism.

Topics – Constructors, Reference Types, Object Oriented Programming, Inheritance, Access Modifiers, Abstract Classes, Virtual Members, Static Classes, Sealed Classes and Partial Classes

Practical's to be covered- programs on Abstraction, Encapsulation, Inheritance and Polymorphism, static, sealed and partial classes

Chapter 3: C# - Types

Learning Objectives – In this module you will learn parameter passing techniques. You will learn to declare, initialize and access array elements with the help of examples and also learn string

Topics – Reference Types, Value Types, Struct, Reference types, Passing parameter, Strings , Boxing, Enum, Defining types, Interfaces, Arrays, Assemblies and hands on program

Practical's to be covered- programs on parameter passing, string, arrays, interfaces

Chapter 4: C# - Events, Properties, and Methods

Learning Objectives – In this module you will learn properties, delegates and **events** how to create and manipulate delegate types as well as **C# events** which streamline the process of working with delegate types.

Topics –Methods, Method overloading, Fields, Properties, Events, Delegates, Operator overloading and hands on program

Practical's to be covered- programs on method overloading, properties, events, delegates and Operator Overloading

Chapter 5: C# - Flow Control and Exceptions

Learning Objectives – In this module you will work with Control statements with Examples. You will understand how exceptions can be handles using exception handling in C# programming

Topics –Switching, Looping, Using for each, throwing exceptions, built in Exceptions, Handling Exceptions, Chaining catch blocks. Finally, Re-throwing Exceptions, Custom Exceptions

Practical's to be covered- programs on Flow Control and Exceptions

Chapter 6: C# and the CLR

Learning Objectives – In this module you will learn how multi threading works in C# programming. You will learn about reflection and attributes with examples

Topics –Garbage collection, Multi-threading, Reflection, Attributes, Custom attributes and hands on exercises

Practical's to be covered- programs on Garbage collection, Multi-threading, Reflection and Attributes

Chapter 7: C# and Generics

Learning Objectives — In this module you will learn how C sharp programming language allows functions and classes to operate with generic types

Topics –Why Generics?, Building collections without Generics?, Generic Collections, Generic Parameters, Generic Constraints, Generic Methods, Generic Interfaces, Generic Delegates

Practical's to be covered- programs on Generics methods, generic interfaces and generic delegates

ASP.NET

Chapter 1: ASP.NET introduction

Learning Objectives — In this module you will learn some elementary features of .NET Framework. You will understand lifecycle of .NET and event handling

Topics –Introduction, Environment, Life cycle-application and page, First Example, Event Handling

Practical's to be covered- sample programs on ASP.NET

Chapter 2: Server side

Learning Objectives — In this module you will learn .NET Framework properties that correspond to intrinsic objects like , Application, Cache, Request, Response, Server and user

Topics –Session, Application, Cache, Request, Response, Server, user and hands on exercises

Practical's to be covered-programs on session, Cache, Request, Response, Server and user

Chapter 3: Web Controls

Learning Objectives — In this module you will learn .NET Framework provides a rich set of **server-side** controls for developing Web applications. **Server-side** controls are often called server controls or Web Forms controls

Topics –HTML controls, HTML server controls, Asp.net server controls, Asp.net Ajax server controls, User controls and custom controls

Practical's to be covered-programs on web controls and creation web application

Chapter 4: Managing state

Learning Objectives — In this module you will learn state management techniques in ASP.NET. You will learn the various types of state management techniques both client side and server side.

Topics –View state, Control state, Session state, Application state and hands on exercises

Practical's to be covered-programs on Managing state

Chapter 5: Validation

Learning Objectives — In this module you will learn how **ASP.NET** provides a set of **validation** controls that provide an easy-to-use but powerful way to check for errors and, if necessary, display messages to the user

Topics –Required Field validator, Range validator, Compare validator, Regular validator, Custom validator and Validation summary

Practical's to be covered-programs on all types of validation

Chapter 6: Windows Form

Learning Objectives — In this module you will learn how **Windows Forms** (WinForms) graphical (GUI) class library included as a part of Microsoft **.NET**Framework, providing a platform to write rich client applications for desktop, laptop, and tablet PCs

Topics –Introduction to windows form, Form controls, User Define controls

Practical's to be covered-creating windows form application

Chapter 7: ADO.NET

Learning Objectives — In this module you will learn how **ADO.NET** technology is used to access data from the Microsoft **.NET** Framework that provides communication between relational and non-relational systems through a common set of components so **ADO** can be used to access databases from your web pages.

Topics –Connected Architecture, Disconnected Architecture, Working with Transaction

Practical's to be covered- programs on data providers, sql server connectivity, connection, command, data reader, dataset, data adapter, data tables, web form examples

Chapter 8: ASP.NET Working with Data

Learning Objectives — In this module you will learn to work with Asp.net Data

Topics – Data Binding, State Management, Caching

Practical's to be covered- programs on Data Binding, State Management, Caching

Chapter 9: ASP.NET 3.5 Security

Learning Objectives — In this module you will learn how to **secure** your **ASP.NET** Web applications.

Topics –IIS 6 & IIS 7 URL Authorization, Forms authentication, Role-based authorization, Config file encryption, Resources and Internationalization

Practical's to be covered- Forms authentication, Role-based authorization, Config file encryption

Chapter 10:ASP.NET Advanced Topics

Learning Objectives- this module you will learn Asp.net advanced topics like HTTP pipeline, Custom controls, Web parts, Web services

Topics –HTTP pipeline, Custom controls, Web parts, Web services 2.0 and ASP.NET AJAX

Practical's to be covered- HTTP pipeline, Custom controls, Web parts, Web services

Chapter 11: ASP.NET Ajax Introduction

Learning Objectives- this module you will learn how to use Ajax in web application

Topics –ASP.NET Ajax server control, ASP.NET Ajax Client-side Library, ASP.NET Ajax Control Toolkit

Practical's to be covered- ASP.NET Ajax

Chapter 12: ASP.NET MVC

Learning Objectives- this module you will learn how to use ASP.NET MVC in web application

Topics –Web Application using MVC pattern, Razor View, Controller

Practical's to be covered- MVC web application

Chapter 13: Windows Communication Foundation (WCF)

Learning Objectives- this module you will work with Windows Communication Foundation in aasp.net

Topics –WCF Configuration, Hosting WCF Services in Windows Services and Hosting WCF Services in IIS

Practical's to be covered- Windows Communication Foundation