



.NET Full Stack **Web Developer.** **Complete Program**

1. Web Design

- HTML 5
- CSS 3
- JavaScript
- Bootstrap

2. An Introduction to C#

- What is .NET?
- What is the CLR?
- The FCL
- Primitive Types
- Namespaces
- Statements and Expressions
- Operators

3. Classes and Objects

- Constructors
- Reference Types
- Object Oriented Programming
- Inheritance
- Access Modifiers
- Abstract Classes
- Virtual Members
- Static Classes
- Sealed Classes
- Partial Classes

4. C# - Types

- Reference Types
- Value Types
- The struct
- Testing Reference Types
- Testing Value Types

- Passing Parameters
- Strings
- Boxing
- The enum
- Defining Types
- Interfaces
- Arrays
- Assemblies

5. C# - Events, Properties, and Methods

- Methods
- Method Overloading
- Fields
- Properties
- Events
- Events - Delegates
- Events - Subscribing
- Events - Publishing
- Indexers
- Operator Overloading
- Conversion Operators

6. C# - Flow Control and Exceptions

- Branching
- Switching
- Looping
- Using foreach
- Jumping
- Returning and Yielding
- Throwing Exceptions
- Built-in Exceptions
- Handling Exceptions
- Chaining Catch Blocks
- Finally
- Re-throwing Exceptions
- Custom Exceptions

7. C# and the CLR

- Garbage Collection
- Threads
- Async
- Parallel
- Reflection
- Attributes
- Custom Attributes
- COM Interop
- PInvoke

8. C# and Generics

- Why Generics?
- Building Collections Without Generics
- Generic Collections
- Generic Parameters
- Generic Constraints
- Generic Methods
- The default Keyword
- Generic Interfaces
- Generic Delegates
- Variance

9. C# and LINQ

- Extension Methods
- Extensions and Lambdas
- Lambdas and Funcs
- Funcs and Expressions

10. C# and the DLR

- Why Dynamic?
- Using Dynamic Types
- Excel Automation
- The DLR
- ExpandoObject
- DynamicObject
- Calling Ruby

11. Object Oriented Programming with C#

- Primitive Procedural Preoccupations
- The Big Encapsulation
- Little Abstractions
- The Inheritance Check
- A Clean Interface
- Directional Dependencies

12. Functional Programming with C#

- Prime Abstraction
- A Higher Calling
- Lazy Code
- Timing and Retries
- Partial Application and Currying
- Asynch and Parallel
- Multithreading

13. Exploring the .NET Framework

- File I/O
- Resource management with try/finally/using
- Using XML serialization
- Introducing assembly resolution
- Deploying dependent assembly probing
- Using a config file to control probing
- ArrayList
- Hashtable
- SortedList
- Stack and Queue

14. Windows Form

- Introduction to Windows Form
- Form Controls
- User Define Controls

15. ADO.NET

- Connected Architecture
- Disconnected Architecture
- Working with Transaction

16. Windows Presentation Foundation(WPF)

- Windows Application using WPF
- Data Binding
- Data Template
- Styles
- Commands

17. ASP.NET

- Web Application using ASP.NET
- ASP.NET Architecture
- Control-based Programming
- User Interface Elements
- Deployment
- Web Sites, Applications, and Virtual Directories in IIS
- ASP.NET Diagnostics and Health Monitoring

18. ASP.NET Working With Data

- Data Binding
- State Management
- Validation
- Caching

19. ASP.NET 3.5 Security

- IIS 6 & IIS7 URL Authorization
- Forms authentication
- Role-based authorization
- Trimming site maps with roles
- Config file encryption
- ASP.NET Membership
- Resources and Internationalization

20. ASP.NET 3.5 Advanced Topics

- HTTP Pipeline
- Custom Controls
- Web Parts
- Web Services

21. ASP.NET AJAX

- ASP.NET Ajax Introduction
- ASP.NET Ajax Server Controls
- ASP.NET Ajax Server Data
- ASP.NET Ajax Client-side Library
- ASP.NET Ajax Control Toolkit

22. ASP.NET MVC

- Web Application using MVC Pattern
- Razor View
- Controller
- Model

23. Entity Framework

- Introducing the Entity Framework
- Code First Approach

24. Windows Communication Foundation(WCF)

- WCF Configuration
- Hosting WCF Services in Windows Services
- Hosting WCF Services in IIS
- Building RESTful services with WCF

25. Windows Workflow Foundation(WF)

- Introducing Windows Workflow Foundation
- Programming workflows in WF
- Writing custom activities in WF