

Microsoft® ASP.NET Using Visual Basic .NET



Instructors: **Ken Getz** is a nationally renowned speaker and best-selling author who specializes in programming with Visual C# and Visual Basic. He is the author and presenter of some of AppDev's most popular courses, and has been showing developers how to build powerful, robust applications for over 10 years.

Andy Baron is a nationally recognized industry expert specializing in SQL Server, ADO.NET and SQL Server Business Intelligence. Andy is a Microsoft MVP (Most Valued Professional), an author and editor for some of the industry's top publications, and a sought-after speaker and consultant.

Mary Chipman is a programmer-writer for the Data Access Technologies team at Microsoft. Prior to joining Microsoft, she had been awarded the MVP designation every year since 1995. Mary has written many books as well as articles for technical journals, and is a frequent speaker at industry conferences.

Target Audience/Prerequisites: Before taking this course, you should have experience with a .NET programming language, as well as a working knowledge of Web development techniques, tools and frameworks.

Total Learning Time: 8 hours

Media run time is 8+ hours. This course can also be used as quick reference material, with the ability to access just the information you need in a matter of minutes.

Level 1: Creating Web Pages and XML Web Services Using Visual Basic .NET

Course Description: In Level 1, you will learn how to use Visual Studio .NET and Visual Basic .NET to build ASP.NET Web pages and XML Web Services. You will gain an understanding of the new architecture behind ASP.NET and how to use the new server controls. You will also learn how to use ADO.NET to create data-driven ASP.NET Web forms.

Course Outline: Level 1:

Introduction to ASP.NET

- A Review of Classic ASP
- ASP.NET Web Applications
- Rendering HTML with Server Controls
- Using ASP.NET to Deliver XML Web Services

Working with Web Forms Controls

- Introduction to Web Forms Controls
- Simple Input Controls
- HyperLinks and Button Controls
- List Controls

Validating User Input

- Overview of ASP.NET Validation Controls
- Using the Simple Validators
- Using the Complex Validators
- Summarizing Results with the ValidationSummary Control

Using Rich Server Controls

- Introduction to Rich Controls
- The Calendar Control
- The AdRotator Control
- The XML Control

Accessing Data

- Overview of ADO.NET
- Connecting to Data
- Executing Commands
- Working with Data
- Choosing an ADO.NET Provider

Using the DataList and Repeater Controls

- Overview of List-Bound Controls
- Creating a Repeater Control
- Creating a DataList Control

Working with the DataGrid Control

- Introduction to the DataGrid
- Setting Up the DataGrid
- Using Advanced DataGrid Features
- Adding Advanced Features

Managing Data with ADO.NET DataSets

- The Role of DataSets in ADO.NET
- Using DataSets in ASP.NET
- Saving DataSets in Session State
- Using DataTable Constraints and DataSet DataRelations
- Using DataSets with DataAdapters to Modify Data
- The Transactional Model in DataSets

Creating XML Web Services

- The Motivation for XML Web Services
- Creating an XML Web Service with Visual Studio .NET
- Disabling Unwanted Protocols
- Designing XML Web Services

Consuming XML Web Services

- Creating Web Services Clients
- HTTP Clients
- Creating .NET Consumers
- Web Services and Legacy Clients
- Discovering Web Services Using UDDI

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Level 2: Building and Deploying Web Applications Using Visual Basic .NET

Course Description: Level 2 takes you beyond the basics of creating Web pages and XML Web Services with ASP.NET, by presenting the techniques and concepts you will need to build efficient, full-featured Web applications. You will learn to interoperate with non-.NET code, manage session state, and reuse code by creating your own controls. This course teaches you how to improve performance with output caching, debug your applications and trace its activity, use advanced Web Services features, and configure and deploy ASP.NET applications. Finally you will learn to authenticate users and limit their access to resources, handle multi-user data access conflicts, and support mobile devices.

Course Outline: Level 2:

Migration and Interoperability

- Migrating ASP to ASP.NET
- Using COM Objects in ASP.NET
- Working with ADO Recordsets
- Using Platform Invocation Services

Managing State with ASP.NET

- Preserving State in Web Applications
- Page-Level State
- Using Cookies to Preserve State
- ASP.NET Session State
- Storing Objects in Session State
- Configuring Session State
- Setting Up an Out-of-Process State Server
- Storing Session State in SQL Server
- Using Cookieless Session IDs
- Application State

Creating New Controls in ASP.NET

- Two Kinds of User-Defined Controls
- Creating a User Control
- A More Complex User Control
- Creating a Custom Control
- Investigating the StateDropDownList Control

Improving Performance with Caching

- The Importance of Caching
- Declarative Page Output Caching
- Programmatic Page Caching
- Caching Page Fragments
- Caching Data
- Monitoring Performance

Tracing and Debugging in ASP.NET

- Tracing in ASP.NET
- Debugging ASP.NET Applications

Using XML Web Services in Applications

- Digging Deeper into Consuming Web Services
- Transferring Binary Information Using XML Web Services

Configuring and Deploying ASP.NET Applications

- Configuring IIS and the .NET Framework
- Deploying ASP.NET Applications

Creating Mobile Web Applications

- A Big Problem, and a Solution
- Introducing ASP.NET Mobile Controls
- Investigating the ASP.NET Mobile Controls

Securing ASP.NET Applications

- ASP.NET Security Overview
- Windows Authentication
- Forms Authentication
- Custom Authentication

Robust Data Handling with ADO.NET

- DataSets and XML
- Typed DataSets
- Optimistic Concurrency

Number of Modules	Media Run Time	Total Learning Time	Printable PDF Courseware	Hands-on Labs	Sample Code	Pre/Post Exams	Supports Microsoft Exam Number
12 Modules	20+ hours	20-60 hours	950	Yes	Yes	Yes	N/A

* Professionally printed, bound courseware (student manuals) are available. Ask for details.