

# ASP.NET Using Visual C# .NET 2003

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**Course description:** In this course, you will learn how to use Visual C# .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. 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:

### A Review of Classic ASP

- Introduction
- Intro.sln
- Set Up SQL Server Login
- Code in Products-ASP.asp
- ASP Object Model
- Connection Object
- Input Control
- Run the Page
- Summary

### ASP vs ASP.NET

- Introduction
- ASP Shortcomings
- ASP.NET to the Rescue
- Summary

### Create ASP.NET Web Apps

- Introduction
- Create a New Application
- Format Controls
- Adding Some Code
- Property Window
- View the Code Window
- targetSchema
- Summary

### HTML Server Controls

- Introduction

- HTML Controls
- HTML Control Namespace
- Page\_Load Event
- Postback Properties
- HTML Table
- Viewstate Control
- Web Controls
- Run the Sample
- AutoPostBack
- Postback Triggers
- Summary

### XML Web Services

- Introduction
- Create a Web Service
- Create a Web Method
- Test the Web Service
- Summary

### Web Form Controls

- Introduction
- Intro to Web Forms Controls
- Adding Label Controls
- Setting Label Properties
- View Client Source
- Summary

### Simple Input Controls

- Introduction

- Textbox/Password Controls
- Checkbox/Radio Button
- Summary

### Button Control

- Introduction
- Submit Control
- Hyperlink Control
- HandleCommand Event
- Image Control
- Summary

### List Controls

- Introduction
- ListControls Base Class
- Run the Sample
- Add List Items
- Add Items Code
- HandlePostBack Code
- SelectedIndexChanged Event
- Clear Selection
- Summary

### Validating User Input

- Introduction
- Validation Process
- Run the Sample Page
- Client-side Validation

- How Validation Works
- RequiredField Validator
- Multiple Validators
- Display property
- RangeValidator
- CompareValidator
- Summary

### Regular Expression Validators

- Introduction
- Overview
- Regular Expression Editor
- Regular Expression Library
- Custom Validation
- CustomValidator Control
- Client-side Validation
- Server-side Validation
- Validation Summary Control
- Summary

### Calendar Control

- Introduction
- Calendar Control Properties
- Layout/Selection Modes
- Style Properties
- Calendar Control Events

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- VisibleMonthChanged
- SelectionChanged Event
- DayRender Event
- Cell Property
- Page\_load Code
- Client-side Code
- Summary

## AdRotator Control

- Introduction
- Overview
- AdRotator Properties
- Weighting Impressions
- AdResponse
- TargetFrame
- KeywordFilter Property
- AdCreated Event
- Summary

## XML Control

- Introduction
- Set up XML/XSL
- XML Control Properties
- Stylesheet Properties
- Summary

## DataAdapter Object

- Introduction
- Overview
- DataSet Object
- Run the Sample
- Working with the DataAdapter
- Fill a DataSet
- DataTables
- Using DataRows
- DataColumns and Schema
- Filling DataSets from SQL Server
- Summary

## Choosing a Provider

- Introduction
- Overview
- SQL Server Data Provider
- OLEDB Data Provider
- ODBC Data Provider
- Multiple Providers
- Using Interface Interitance
- Code for Multiple Providers
- Summary

## Overview of ADO.NET

- Introduction
- Overview
- ADO.NET Classes
- OleDb and SQL Client
- The ADO.NET Architecture
- The DataTable Object
- Create a DataTable
- Connecting to a DataSource

- Command Object
- DataReader Object
- Run the DataReader Sample
- Summary

## DataList - Repeater DataBind

- Introduction
- Configure a Repeater Control
- Create a Repeater Control
- Run the Repeater Sample
- View DataBinding Code
- View DataBinding HTML
- RepeaterBind() Procedure
- Using Templates to Format
- Summary

## DataList Examples

- Introduction
- Run DataList.aspx Example
- Bind Data to a DataList
- Edit Data with a DataList
- Editing DataList Templates
- DataListEditing Code
- Summary

## Binding the DataGrid Control

- Introduction
- Setting Up the DataGrid
- Add a SqlDataAdapter
- Add an SqlConnection
- Add DataSet/Bind DataGrid
- Using the Property Builder
- More Property Builder
- Display the DataGrid
- Summary

## DataGrid Example

- Introduction
- Examine the Sample
- Examining DataBinding
- Adding Button Controls
- Adding a Hyperlink Column
- Selecting Rows
- Setting Up Paging
- PageIndexChanged Event
- Editing Rows
- EditCommand Event
- CancelCommand Event
- UpdateCommand Event
- DeleteCommand Event
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## Role of DataSets in ADO.NET

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- ADO.NET Object Model
- System.Data Namespace
- Advantages of Using DataSets
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## Using DataSets

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- Run the EditProducts.aspx
- Run EditProducts
- Hold Changes
- Friendly Error Message
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- Check ASPNET User Rights
- Using the Task List
- Create the DataSet
- Caching Data in DataSets
- Retrieve Saved DataSets
- Summary

## Constraints and DataRelations

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- Adding a Constraint
- Types of Constraints
- DataRelations
- Add a DataRelation
- Find Method
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## CommandBuilder

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- CommandBuilder Code
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- SourceVersion
- Auto Increment Columns
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- BeginEdit - EndEdit
- DataRowVersion
- RowState
- GetChanges Method
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## Designing XML Web Services

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- Web Service Protocols
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- Disabling GET and POST
- web.config
- Disabling WSDL
- Summary

## Create a Web Service

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- Create a Web Service

- View the WSDL
- InventoryWebService Solution
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## HTTP Get and HTTP Post

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- Making HTTP Requests
- HTTP-GET/HTTP-POST
- web.config File
- Using HTTP-GET
- Using HTTP-POST
- Client Source for HTTP-POST
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## Creating a Client App

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- Creating a Client App
- Introducing Web References
- Create a Simple Web App
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- Discovery File
- WSDL of the Web Service
- reference.map File
- Reference.cs File
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- Microsoft SOAP Toolkit
- Using a VB 6 Client
- MSSOAPLib 3.0
- VB6 Using a Web Service
- More SOAP Toolkit
- Summary

## UDDI

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- What Is UDDI?
- Searching a UDDI Portal
- UDDI Test Server
- Consuming a Web Service
- Run the Web Service
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## Interoperability - Coexistence

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- Benefits of Migrating
- Deciding on a Strategy
- Preparing to Migrate
- Upgrading VB 6.0 Projects
- Migrating an ASP Page
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- Summary

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- PIAs
- Setting a Reference to a PIA
- Sample Interop App
- ADO Recordsets
- VBA Gotchas
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- Work with ADO XML
- Summary

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- P/Invoke Caveats
- Calling the Wrapper Class
- Creating a Wrapper Class
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- Methods of Preserving State
- Sample Application
- ViewState Control
- Understanding Viewstate
- Limits of Page-Level State
- EnableViewStateMac
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## Cookies

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- Working with Cookies
- Examples of Using Cookies
- Viewing Cookies.aspx
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## Session State

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- Problems in Classic ASP
- SessionState
- SessionID.aspx
- Storing Session Data
- SelectProducts
- Session State Objects
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## Configuring Session State

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- Editing Configuration Files
- Session State Attributes
- State Server mode
- ASP.NET State Server
- Testing State Server
- ISerializable
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- SQL Server Session State
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- A More Complex Control
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## StateDropDownList Control

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- StateList Properties
- Property Behavior
- PostBack Data
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- Methods of the Interface
- How Everything Works
- A Toolbox Bitmap
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- User Control Problems
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- Sample of Caching Data
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- Install IIS
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- Setup ASPNET Account
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- Creating A Custom Account
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- The appSettings Section
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- What Are You to Do?
- ASP.NET Mobile Controls
- Mobile Controls Features
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- How Mobile Pages Browse
- A Simple Mobile Web Page
- Make a Mobile Page Work
- Using an Emulator
- How Did this Code Work?
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- Container Control Sample
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- Text Display Controls
- List and Selection Controls
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- Configuring IIS Settings
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- Run the Sample App
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