



## Aspect Training

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YOUR COURSE, YOUR WAY - MORE EFFECTIVE IT TRAINING

# Beginning ASP.NET WebForms

**Duration: 5 days**

### Overview:

Beginning ASP.NET is your ultimate guide to the popular framework ASP.NET Webforms. This course walks you through the tools and features that make your workflow smoother and your applications stronger.

During the course you will build a complete ASP.NET Webforms site. The course exercise includes a refresher to the programming language as well as use of CSS, JQuery and AJAX.

This course can be presented for either C# or VB Developers.

### Prerequisites:

Delegates should have a working knowledge of HTML, and some experience of C# or VB.

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### Topics:

#### 1 - Getting Started With ASP.NET

Hypertext Transfer Protocol (HTTP)

Microsoft Internet Information Services

HTML 5

HTML Markup

Attributes in HTML

ASP.NET Web Forms

ViewState

ASP.NET Web Forms Events and Page Lifecycle

Control Library

ASP.NET MVC

Testability

Full Control over Output

Web Forms and MVC Similarities

Choosing the Best Approach

The Website Example

## **2 - Building An Initial ASP.NET Application**

Creating Websites with Visual Studio

Available Project Types

Web Site Project-Based Approach

Web Application Project

Creating a New Site

While Creating a Project

Empty Template

Other Web Templates

Working with Files in Your Application

File Types of an ASP.NET MVC Application

File System Structure of an ASP.NET MVC Application

File Types of an ASP.NET Web Forms Application

MVC and Web Form File Differences

## **3 - Designing Your Web Pages**

HTML and CSS

Why Use Both HTML and CSS?

An Introduction to CSS

More CSS

Selectors

Properties

Precedence in Styles

The Style Sheet

Adding CSS to Your Pages

Creating Embedded and Inline Style Sheets

Applying Styles

Managing Styles

## **4 - Programming In C# And VB**

Introduction to Programming

Data Types and Variables

Defining a Variable

Operators

Converting and Casting Data Types

Using Arrays and Collections

Decision-Making Operations

Operators

If Statement

Switch/Select Case Statement

Loops

Organizing Code

Methods: Functions and Subroutines

Writing Comments and Documentation

Object-Oriented Programming Basics

Important OO Terminology

## **5 - ASP.NET Web Form Server Controls**

Introduction to Server Controls

Defining Controls in Your Pages

Types of Controls

AJAX Extensions

The ASP.NET State Engine

How the State Engine Works

## **6 - Creating Consistent-Looking Websites**

Consistent Page Layout with Master Pages

Creating and Using Master Pages in ASP.NET Web Forms

Creating a Content Page in ASP.NET Web Forms

Using a Centralized Base Page

## **7 - Navigation**

Different Ways to Move around Your Site

Understanding Absolute and Relative URLs

Understanding Default Documents

Friendly URLs

Using the ASP.NET Web Forms Navigation Controls

Using the Menu Control

Creating a Navigational Structure

Programmatic Redirection

Programmatically Redirecting the Client to a Different Page

Server-Side Redirects

## **8 - Displaying And Updating Data**

Working with SQL Server

SQL Server Management Studio

Connecting in Visual Studio

Entity Framework Approach to Data Access

Data First

Code First

Selecting Data from the Database

Data Controls in Web Forms

Details View

Web Form GridView

## **9 - Working With Data – Advanced Topics**

Sorting and Pagination

Sorting and Pagination in Web Form Server Controls

Updating and/or Inserting Data

Using SQL Queries and Stored Procedures

Caching

Different Ways to Cache Data in ASP.NET Applications

Common Pitfalls with Caching Data

## **10 - User Controls**

Introduction to User Controls

Creating User Controls

Adding User Controls

Sitewide Registration of a User Control

Managing the IDs of Any Controls

Adding Logic to Your User Controls

Validating User Input

Gathering Data from the User

Validating User Input in Web Forms

Understanding Request Validation

Client-Side Validation

## **11 - ASP.NET AJAX**

Introducing the Concept of AJAX

Using ASP.NET AJAX in Web Forms

The Initial AJAX Experience

Enhancing the AJAX Experience

Using Web Services in AJAX Websites

jQuery in AJAX

## **12 - jQuery**

An Introduction to jQuery

Early JavaScript

jQuery's Role

Including the jQuery Library

Bundles

jQuery Syntax

jQuery Core

Working with the jQuery Utility Methods

Selecting Items Using jQuery

Modifying the DOM with jQuery

Changing Appearance with jQuery

Handling Events

Debugging jQuery

## **13 - Security In Your ASP.NET Website**

Introducing Security

Identity: Who Are You?

Authentication: How Can Users Prove Who They Are?

Authorization: What Are You Allowed to Do?

Logging in with ASP.NET

Configuring Your Web Application for Security

Working with Users within Your Application

Roles

Configuring Your Application to Work with Roles

Programmatically Checking Roles

## **14 - Personalizing Websites**

Understanding the Profile

Creating the Profile

Using the Profile

## **15 - Exception Handling, Debugging, And Tracing**

Error Handling

Different Types of Errors

Catching and Handling Exceptions

Global Error Handling and Custom Error Pages

The Basics of Debugging

Tools Support for Debugging

Moving Around in Debugged Code

Debugging Windows

Debugging Client-Side Script

Tracing Your ASP.NET Web Pages

Adding Your Own Information to the Trace

Tracing and Performance

Logging