

10958BC

**Programming Fundamentals
of Web Applications**

5 DAYS

This five-day instructor-led course provides the knowledge and skills to develop web applications by using Microsoft Visual Studio and WebMatrix 2.

The course introduces the Microsoft web stack and shows how to use WebMatrix 2 to develop web applications. The course will help students understand how start with basic web development concepts, and how to use existing applications from the Application Gallery. The course will describe basic web development, including CSS, plug-ins, scripting, basic data access, and application hosting. The course will also describe how to use Windows Azure for application hosting, and how to move beyond WebMatrix 2 into Visual Studio.

Module 1: Overview of Microsoft Web Technologies

Introduction to Web Fundamentals

Introduction to the Microsoft Web Stack

Introduction to the Open Source Application Gallery

Module 2: Exploring WebMatrix 2

The Project Life Cycle

Introduction to the Microsoft WebMatrix 2

Module 3: Building Simple Websites in WebMatrix 2

Building Web Pages in WebMatrix 2

Using Razor Syntax to Build Dynamic Pages

Module 4: Building Data-Driven Websites in WebMatrix 2

Introduction to Databases

Creating a Database in WebMatrix 2

Displaying Data

Module 5: Adding Rich Content to WebMatrix 2 Websites

Adding Media Content

Using HTML5 in a Website

Module 6: Designing the WebMatrix 2 Website

Structuring a Website

Applying Template Views

Applying Styles to a Website

Adapting a Site for Mobile Browsers

Module 7: Deploying a WebMatrix 2 Web Applications

Hosting Web Applications
Hosting Databases
Deploying to your Chosen Locations

Module 8: Troubleshooting WebMatrix 2 Web Applications

Sources of Errors
Using the Microsoft Internet Explorer Developer Tools
Troubleshooting Problems

Module 9: Consuming Services and Data from the Web

Calling Web Services from a Web Application
Public Data Sources

Module 10: Enriching a WebMatrix 2 Web Application by Using Open Source Components

Overview of Open Source Packages in NuGet
Browsing, Installing, and Using Packages

Module 11: Securing a WebMatrix 2 Website

Developing Websites that Resist Attack
Controlling Access to a Website
Working with Roles and Memberships

Module 12: Building Responsive Webpages

Why Use Client-side Scripts
The jQuery Script Libraries
Using AJAX and Partial Page Updates
Optimizing Caches to Improve Performance

Module 13: Driving Traffic to a WebMatrix 2 Website

Growing a Website
Analyzing a WebMatrix 2 Application
Optimizing a WebMatrix 2 Application for Search Engines
Marketing an Application

Module 14: Customizing an Application from the WebMatrix 2 Gallery

Exploring the Application Gallery
Modifying an Existing Application

Module 15: Transitioning from WebMatrix 2 to Visual Studio

Developing Websites in Visual Studio
Moving Between WebMatrix 2 and Visual Studio