

REVIEW LESSON

MTA Course: Web Development Fundamentals
Lesson name: Web Development Fundamentals 1.6
Topic: Understand configuration files
File name: WebDevFund_RL_1.6

Lesson Objective:

1.6: Understand configuration files. *This objective may include but is not limited to:* Understanding the usage of Web.config and Machine.config, and the settings that can be made.

Preparation Details

Prerequisite student experiences and knowledge

This MTA Certification Exam Review lesson is written for students who have learned about Web design and Web application programming. Students who do not have the prerequisite knowledge and experiences cited in the objective will find additional learning opportunities using resources such as those listed in the Microsoft® resources and Web links at the end of this review lesson.

Students should have a basic understanding of the role of configuration files and how to use them appropriately, including updating the settings in those files.

Instructor preparation activities

For this lesson, you will need a computer with Microsoft Office 2007®, and Microsoft Visual Studio 2008® attached to a liquid crystal display (LCD) projector to display and review the attached Microsoft PowerPoint® document.

Resources, software, and additional files needed for this lesson:

- WebDevFund_PPT_1.6
- WebDevFund_SA_1.6

- Web development software
Examples include: Visual Studio 2008®, or
 - Microsoft Visual Basic 2008, Express Edition
(<http://www.microsoft.com/express/downloads/#2008-Visual-Basic>)
 - Microsoft Visual C# 2008®, Express Edition
(<http://www.microsoft.com/express/downloads/#2008-Visual-CS>)
 - Microsoft Visual Web Developer 2008, Express Edition
(<http://www.microsoft.com/express/downloads/#2008-Visual-Web-Developer>)
- Sticky-note pads for group activity.

Teaching Guide

Essential Vocabulary:

Web.config—A file that contains configuration settings for an ASP.NET Web application. Web.config files can be used by the application to override the server's default Server settings, which are defined in the Machine.config file. Each directory within an application may have its own Web.config file that manages the configuration of that directory and its contents, as well as any sub-directories and their contents. Web.config files in child directories may supply additional configuration information to that which is inherited from parent directories, and the child directory configuration settings can override or modify settings defined in parent directories.

Machine.config—a file that contains the ASP.NET settings that apply to the entire Web server. This file is located in the %Runtime install path%\Config directory of the 2.0 version of the .NET framework. Versions 3.0 and 3.5 are built on version 2.0 and use this Machine.config file rather than having their own. The beta version of the 4.0 .NET framework installation contains its own /CONFIG/ directory containing its own Machine.config file as well. The Machine.config contains configuration settings for machine-wide assembly binding, built-in remoting channels, and ASP.NET.

remoting—.NET remoting can be used to communicate with other application domains in the same process, or components that may exist in other processes, AppDomains, or even servers. It allows client applications that can seamlessly use objects in other processes on the same computer or on any other computer that is reachable over its network.

channels—objects that transport messages between applications across remoting boundaries, whether between application domains, processes, or computers. A channel can listen on an endpoint for inbound messages; send outbound messages to another endpoint, or both.

Lesson Sequence

Activating prior knowledge/lesson staging (10 minutes)

Warm up Activity—“Sticky Ideas”

1. Divide the class into groups of three to four students.
2. Instruct each group to brainstorm features and functionality of a Web application (examples: server settings, application settings, or specific Web page settings). Students write each feature or functionality on a sticky note.
3. Each group places their sticky notes on the class whiteboard or bulletin board under one of four possible categories: belongs in the Machine.config file, the application's root Web.config file, a Web.Config file located within a sub directory of the application, or could be placed in any of the files..
4. After the notes are placed in the categories, briefly highlight some of the major features and functionalities. Encourage students to challenge the placement of the sticky notes.

Lesson activity (30 minutes)

1. Using the PowerPoint presentation WebDevFund_PPT_1.6, review the concepts of this lesson.
2. Distribute Student Activity Worksheet WebDevFund_SA_1.6.
 - a. Students practice modifying the Web.config file.
3. Discuss the key objectives of the review assignment.

Assessment/lesson reflection (10 minutes)

1. Students summarize how the activity met this lesson objective.
2. As time permits, students display their solution to portions of the activity using the LCD projector.
3. Wrap up and provide homework/enrichment opportunities.

Microsoft resources and Web links

Students who wish to explore this lesson topic further may visit the following links:

Video lessons and references on configuration files

<http://www.asp.net/learn/videos/video-284.aspx>

<http://msdn.microsoft.com/en-us/library/1xtk877y%28VS.71%29.aspx>

Microsoft ASP.NET

<http://www.asp.net>

Suggested best practices:

- It may be beneficial to display code examples using the LCD projector for each of the major concepts, particularly when the vocabulary is being reviewed. Randomly choose students to demonstrate the concepts to the class. It may also be advantageous to have students complete this activity in small groups.