

REVIEW LESSON

MTA Course: Software Development Fundamentals

Lesson name: Software Development Fundamentals 4.1

Topic: Understand Web page development (One 50-minute class period)

File name: SoftDevFund_RL_4.1

Lesson Objective:

4.1: Understand Web page development. *This objective may include but is not limited to:* HTML, cascading style sheets (CSS), JavaScript.

Preparation Details

Prerequisite student experiences and knowledge

It is beneficial but not necessary that students have hands-on experience working with HTML, CSS, and JavaScript. It will help if students have a basic understanding of networks, the Internet, how browsers work, and how Web sites work. This MTA Certification Exam Review lesson is written for students who have learned about Web development. 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.

Instructor preparation activities

None

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

- SoftDevFund_PPT_4.1

Teaching Guide

Essential vocabulary:

cascading style sheets (CSS)—an HTML specification developed by the World Wide Web Consortium (W3C) that allows authors of HTML documents and users to attach style sheets to HTML documents.

HTML—acronym for HyperText Markup Language, the markup language used for documents on the World Wide Web. A tag-based notation language used to format documents that can then be interpreted and rendered by an Internet browser.

JavaScript—a scripting language developed by Netscape Communications and Sun Microsystems that is loosely related to Java. JavaScript, however, is not a true object-oriented language, and it is limited in performance compared with Java because it is not compiled.

Lesson Sequence

Activating prior knowledge/lesson staging (5 minutes)

1. Show the Activator slide in the PowerPoint® presentation for this lesson.

Ask: What does HTML stand for? (**Hypertext Markup Language**)

What does CSS stand for? (**cascading style sheet**)

How is JavaScript related to Java? (**very loosely related—not object-oriented**)

Lesson activity (35 minutes)

1. Review the concepts using the presentation.
 - a. Review the vocabulary definitions.
 - b. Describe HTML.
 - c. Show the example of HTML code. Students do not need to know HTML code, but they should be able to recognize it. Help students understand the basic form of a tag.
 - d. Describe CSS and explain why it is useful. Specify the relationship between CSS and HTML.
 - e. Show the example of CSS code. Students do not need to know CSS code, but they should be able to recognize it. Help students understand the basic form of CSS.

- f. Before describing JavaScript, explain the difference between client- and server-side scripts.
- g. Describe JavaScript and its relationship to HTML.
- h. Show the example of JavaScript code. Students do not need to know JavaScript code, but they should be able to recognize it. Students should be able to make a connection between this scripting language and higher-level languages like Microsoft® Visual Basic® and Microsoft C#®.

Assessment/lesson reflection (10 minutes)

1. Show the Lesson Review slide in the presentation.
 - a. Students will describe the key terms from the lesson and how they are used:
 - i. HTML
 - ii. CSS
 - iii. JavaScript

Microsoft resources and Web links**Introduction to the Web as a Platform (MSDN)**

<http://msdn.microsoft.com/en-us/library/bb330932%28VS.80%29.aspx#>

Introduction to CSS (MSDN)

<http://msdn.microsoft.com/en-us/library/bb330916%28VS.80%29.aspx>

Introduction to JavaScript (MSDN)

<http://msdn.microsoft.com/en-us/library/bb288795%28VS.80%29.aspx>

Additional notes to the instructor:

- An understanding of these concepts is what is assessed, not the actual use of code.