

TRAINER PREPARATION GUIDE 1.1: UNDERSTAND THE PLATFORM FUNDAMENTALS

Lesson Objective 1.1:

Understand the platform fundamentals. *Topics include:* packaging and the runtime environment: app package, app container, credentials/permission sets, host process, leveraging existing HTML5 skills, and content for slate/tablet applications.

Required materials to teach this lesson:

1. A workstation with Microsoft® Expression® Web 4, with the most recent service pack installed
2. 98-375-ENU-1.1-LP
3. 98-375-ENU-1.1-IC
4. 98-375-ENU-1.1-ICKey
5. 98-375-ENU-1.1-PC

Preparation tasks

Technical preparation activities:

1. The lesson demonstration requires Expression Web 4 to be installed with the most recent service pack (which provides the latest HTML5 support). Have a previously created website available, or make a quick one-page website prior to the demonstration described in the presentation.
2. **Vocabulary:**

application packaging: the process of bundling an application and its resources into an archive format for the purpose of distribution and deployment.

platform: the type of computer or operating system being used. The platforms referenced for the content of this review kit are Windows®, Internet Explorer®, and Windows Phone 7.

permissions: the ability of a particular user to access a particular resource by means of his or her user account. Permissions are grouped into permission sets, and every assembly is assigned a set. The .NET Framework defines some standard permission sets, such as FullTrust (implies all permissions) and Execution (permission to only access the CPU).

credentials: the level of access assigned to a user account. Credentials can be set to Windows Authentication, database authentication, no authentication, or custom authentication.

hosting: the practice of providing computer and communication facilities to businesses or individuals, especially for use in creating web and electronic commerce sites. To become active, an application or service must be hosted within a run-time environment that creates it and controls its context and lifetime.

3. **Additional reading and resources:**

MSDN®:

New! HTML5 and CSS: Six Complete Lessons:

http://blogs.msdn.com/b/mis_laboratory/archive/2011/10/18/new-html-5-and-css-six-complete-lessons.aspx

Learn HTML5 in 5 Minutes!: <http://msdn.microsoft.com/en-us/hh549253>

MSDN Developer Samples: Learn Through Code:

<http://code.msdn.microsoft.com/site/search?f%5B0%5D.Type=Technology&f%5B0%5D.Value=HTML5>

Building Apps with HTML5: What You Need to Know: <http://msdn.microsoft.com/en-us/magazine/hh335062.aspx>

Other Resources (books, e-reference):

A vocabulary and associated APIs for HTML and XHTML:

<http://dev.w3.org/html5/spec/Overview.html>

W3Schools site: <http://www.w3schools.com>

Note: HTML5 is changing and developing quickly. The list of resources is current as of January 2012. Check resources for current and up-to-date information at the time of classroom use.

Instructor computer setup:

1. A workstation with Expression Studio 4, or at least Expression Web 4 (including service pack 2).

Instructional preparation activities:

1. Review the instructor notes in the notes view of Microsoft PowerPoint® presentation 98-375-ENU-1.1-LP.
2. Make copies of student documents available as needed.
3. Prepare a collection of student projects that make use of most or all of the possible platforms so that the results of the test are more than simply "IE Compatible."

Lesson sequence (50 minutes)

Activating prior knowledge/lesson staging (5 minutes):

Instruct students to answer each question in the "Guiding questions" section of the In-class Activity document or in their personal class notes.

Guiding questions:

1. **How does a web designer accommodate the various devices that might be used to view a website?** Since the introduction of smaller devices used to access the Internet (such as slates, tablets, smartphones, and more) web developers have had to consider how various platforms handle the new HTML5 features.

2. **What must be considered when selecting a host for your website or application?** The process of hosting a website or web application involves identifying a company that offers the necessary services to place your application on their server (typically for a charge) and make it available to the public. When choosing a host, you should consider security, reliability, scalability, and technical support. For example, IIS provides web services and the necessary platform required to run most websites and applications.
3. **How can HTML5 enhance the user experience on a slate or tablet hardware platform?** A major feature of HTML5 is the elimination of the dependency on browser plug-ins, which allows the user to view content without relying on other software such as Flash or Microsoft Silverlight®.

Lesson activity (35 minutes):

1. Teacher instruction (35 minutes)
 - a. Use the PowerPoint presentation 98-375-ENU-1.1-LP to review platform fundamentals.
 - b. An In-class Activity document is available for use as needed.

Lesson review (10 minutes):

1. Lead students in a discussion of the guiding questions.
2. During and after the discussion, students should list any questions they have or any topics with which they would like more assistance.
3. Have students work in pairs to answer the additional questions written by students. Answer any questions that cannot be answered by students, or collect them for follow-up later.
4. Provide the Post-class Activity document for additional review.