



Module 1

Overview of HTML and CSS

Module Overview

- Overview of HTML
- Overview of CSS
- Creating a Web Application by Using Visual Studio 2012

Lesson 1: Overview of HTML

- The Structure of an HTML Page
- Tags, Elements, Attributes, and Content
- Displaying Text in HTML
- Displaying Images and Linking Documents in HTML
- Gathering User Input by Using Forms in HTML
- Attaching Scripts to an HTML Page

The Structure of an HTML Page

- All HTML pages have the same structure
 - DOCTYPE declaration
 - HTML section containing:
 - Header
 - Body
- Each version of HTML has its own DOCTYPE
 - The browser uses the DOCTYPE declaration to determine how to interpret the HTML markup
 - For HTML5 pages, specify a DOCTYPE of **html**

Tags, Elements, Attributes, and Content

- HTML elements define the structure and semantics of content on a web page
- Elements identify their content by surrounding it with a start and an end tag
- Elements can be nested:

```
<p>  
  <strong>Elements</strong> consist of  
  <strong>content</strong> bookended by a  
  <em>start</em> tag and an <em>end</em> tag.  
</p>
```

- Use attributes to provide additional information about the content of an element

Displaying Text in HTML

Text in HTML can be marked up:

- As headings and paragraphs

```
<h1>An Introduction to HTML</h1>  
<p>In this module, we look at the history of HTML and CSS.</p>  
<h2>In the Beginning</h2>  
<p>WorldWideWeb was created by Sir Tim Berners-Lee at CERN. </p>
```

- With emphasis

To `emphasize` is to give extra weight to (a communication); `"Her gesture emphasized her words"`

- In lists

```
<ul>  
  <li>Notepad</li>  
  <li>Textmate</li>  
  <li>Visual Studio</li>  
</ul>
```

Displaying Images and Linking Documents in HTML

- Use the `` tag to display an image
 - The `src` attribute specifies the URL of the image source:

```

```

- Use the `<a>` tag to define a link
 - The `href` attribute specifies the target of the link:

```
<a href="default.html" alt="Home Page">Home</a>
```

Gathering User Input by Using Forms in HTML

- The <form> element provides a mechanism for obtaining user input
 - The action attribute specifies where the data will be sent
 - The method attribute specifies how the data will be sent
 - Many different input types are available

First name:

Paul

Last name:

West

Email address:

paul.west@contoso.com

Choose a password:

●●●●●●●●

Confirm your password:

●●●●●●●●

Website/blog:

http://www.contoso.com

Register

Attaching Scripts to an HTML Page

- HTML is static, but pages can use JavaScript to add dynamic behavior
- Use the `<script>` element to specify the location of the JavaScript code:

```
<script type="text/javascript" src="alertme.js"></script>
```

- The order of `<script>` elements is important
- Make sure objects and functions are in scope before they are used
- Use the `<noscript>` element to alert users with browsers that have scripting disabled.

Lesson 2: Overview of CSS

- Overview of CSS Syntax
- How CSS Selectors Work
- How HTML Inheritance and Cascading Styles Affect Styling
- Adding Styles to An HTML Page

Overview of CSS Syntax

- All CSS rules have the same syntax:

```
selector {  
  property1:value;  
  property2:value;  
  ..  
  propertyN:value;  
}
```

- Comments are enclosed in `/* ... */` delimiters

```
/* Targets level 1 headings */  
h1 {  
  font-size: 42px;  
  color: pink;  
  font-family: 'Segoe UI';  
}
```

How CSS Selectors Work

- There are three basic CSS selectors
 - The element selector: `h2{}`
 - The class selector: `.myClass {}`
 - The id selector: `#thisId {}`
- CSS selectors can be combined to create more specific rules
- The wildcard `*` selector returns the set of all elements
- Use `[...]` to refine selectors based on attribute values

How HTML Inheritance and Cascading Styles Affect Styling

- HTML inheritance and the CSS cascade mechanism govern how browsers apply style rules
- HTML inheritance determines which style properties an element inherits from its parent
- The cascade mechanism determines how style properties are applied when conflicting rules apply to the same element

Adding Styles to An HTML Page

- Use an element's style attribute to define styles specific to that element:

```
<p style="color:blue;">  
some text </p>
```

- Use the <style> element in the <head> to include styles specific to a page:

```
<style type="text/css">  
  p { color: blue; }  
</style>
```

- Use the <link> element to reference an external style sheet:

```
<link rel="stylesheet" type="text/css" href="mystyles.css" media="screen">
```

Lesson 3: Creating a Web Application by Using Visual Studio 2012

- Developing Web Applications by Using Visual Studio 2012
- Demonstration: Creating a Web Site by Using Visual Studio 2012
- Using the Internet Explorer F12 Developer Tools

Developing Web Applications by Using Visual Studio 2012

- Visual Studio 2012 provides tools for:
 - Creating a web application project, and adding folders to structure the content
 - Debugging JavaScript code, examining and modifying variables, and viewing the call stack
 - Deploying a web application to a web server or to the cloud
- Visual Studio 2012 features include:
 - Full support for HTML5
 - IntelliSense for JavaScript code
 - Support for CSS3 properties and values
 - CSS color picker

Demonstration: Creating a Web Site by Using Visual Studio 2012

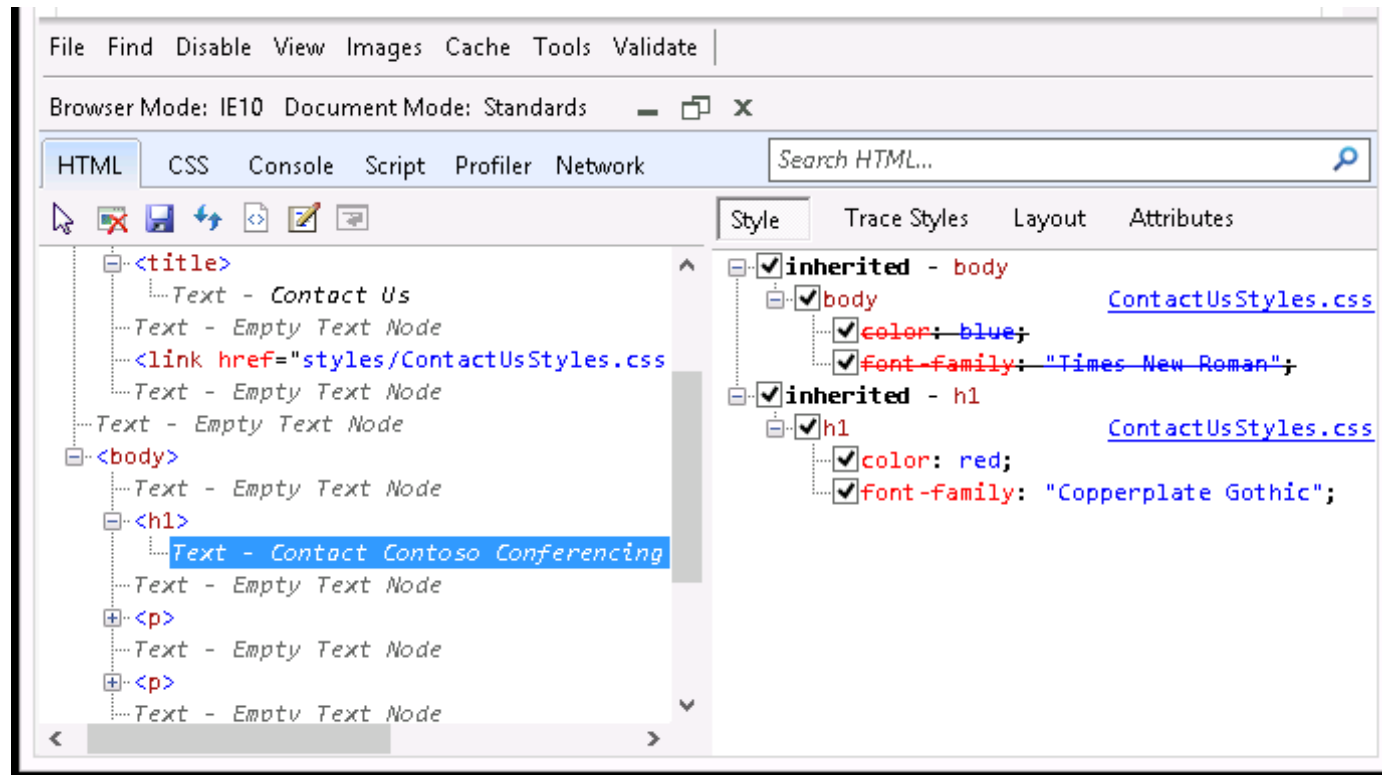
In this demonstration, you will see how to:

- Create a Web Site Project
- Add and Edit files in the Project
- Run the Web Application
- Modify the Live Application

Using the Internet Explorer F12 Developer Tools

The F12 Developer Tools enables developers to:

- Inspect and validate HTML and CSS
- Run and debug JavaScript code
- Profile page load times
- View a page as it were in any version of Internet Explorer from v7.0 onwards



Lab: Exploring the Contoso Conference Application

- Exercise 1: Exploring the Contoso Conference Application
- Exercise 2: Examining and Modifying the Contoso Conference Application

Logon Information

- Virtual Machines: HTML5
- User Name: Student
- Password: Pa\$\$w0rd

Estimated Time: 30 minutes