Scripting for Multimedia

LECTURE 2: EMBEDDING CONTENT

Embedding HTML by using inline frames

- Using <iframe> to embed an inline frame (an HTML document) within the current HTML document

  - Create reuse functionality

  - Include an HTML page from another website on your page

- <iframe> creates a nested browser context into which anther HTML doc can be loaded

- Example

```
<iframe src="menu.html"></iframe>
```

Embedding HTML by using inline frames

- Sandboxing embedded content

  ```
  <iframe sandbox src="http://someOtherDomain.net/content"></iframe>
  ```

- Restrictions

  - allow-forms

  - allow-same-origin

  - allow-scripts

  - allow-top-navigation

  ```
  <iframe sandbox="allow-same-origin allow-forms allow-scripts" src="http://someOtherDomain.net/content"></iframe>
  ```

Embedding HTML by using inline frames

- Seamless content embedding
  - seamless attribute (boolean attribute)

    ```
    <iframe seamless="seamless"
    src="http://someOtherDomain.net/content"></iframe>
    ```

- Currently the seamless attribute is not supported on any browsers

Working with hyperlinks

- <a> element and href attribute

  - external link
    ```
    <a href="ExpenseReports.html">Expense Report Page</a>
    <a href="http://www.contoso.com/SalesReports.html">Sales Report Page</a>
    ```
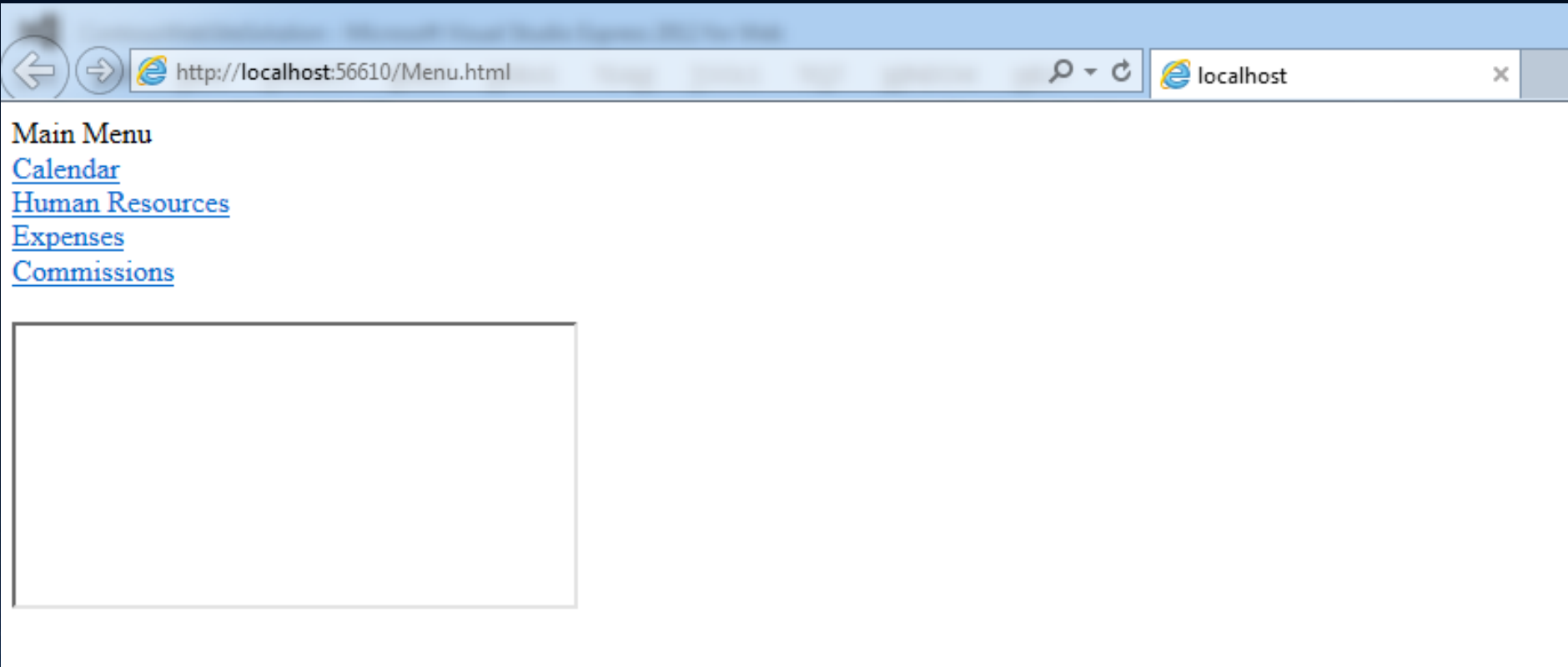
  - internal link **(#tag_id)**
    ```
    <a href="#">Top</a>
    <a href="#BillingAddress">Go To Billing Address</a>
    ```

- Display pattern of <a> element
  - Unvisited link: underlined and blue
  - Visited link: underlined and purple
  - Active link: underlined and red

Working with hyperlinks

- Specifying the hyperlink target
  - The external resource opens in current browser window when clicking a hyperlink
  - How to open a new browser window?
- **target** attribute
  - _blank
  - _parent
  - _self (default)
  - _top
  - <ifram_name>

Working with hyperlinks

- Example: show a menu with hyperlinks on every page

localhost

Main Menu
Calendar
Human Resources
Expenses
Commissions

```
Main Menu<br />
<a href="Calender.html" target="content">Calendar</a><br />
<a href="HumanResources.html" target="content">Human Resources</a><br />
<a href="ExpenseReports.html" target="content">Expenses</a><br />
<a href="Commissions.html" target="content">Commissions</a><br />
<br />
<iframe name="content"></iframe>
```

Working with hyperlinks

- Sending email using mailto protocol

- The mailto URL accepts parameters:
  - subject, cc, bcc, and body

- Parameters can be entered in any order

- Parameters follow a question mark (?) after the email address

- Parameters are separated by the ampersand (&)

Working with hyperlinks

- Examples

```html
<!-- basic mailto -->
<a href="mailto:sales@contoso.com">Contact Sales</a>

<!-- add the name -->
<a href="mailto:Joe&lt;sales@contoso.com&gt;">Contact Joe in
Sales</a>

<!-- multiple recipients comma separated -->
<a href="mailto:sales@contoso.com,service@contoso.com">Contact Sales
and Service</a>

<!-- add carbon copy -->
<a href="mailto:sales@contoso.com?cc=service@contoso.com">Contact
Sales cc Service</a>
```

Working with hyperlinks

- Examples

```
<!-- add blind carbon copy -->
<a href="mailto:sales@contoso.com?bcc=service@contoso.com">Contact
Sales</a>

<!-- basic mailto with message -->
<a href="mailto:sales@contoso.com?body=call me.">Contact Sales with
call me message</a>

<!-- basic mailto with multi line message -->
<a href="mailto:sales@contoso.com?body=call me.%0Thanks">Contact
Sales with multi line message</a>
```

Working with hyperlinks

- Examples

```
<!-- basic mailto with message -->
<a href="mailto:sales@contoso.com?body=call me.">Contact Sales with
call me message</a>


<!-- basic mailto with multi line message -->
<a href="mailto:sales@contoso.com?body=call me.%0Thanks">Contact
Sales with multi line message</a>


<!-- basic mailto with subject and message -->
<a href="mailto:sales@contoso.com?suject=hi&body=call me.">Contact
Sales with hi subject and call me message</a>
```

Adding images

- Embed an image using <**img**> element

- <img> is a void element

- <img> has two attributes:
  - src and alt

- Examples

```
<img src="/images/logo.png" alt="logo" />
<img src="http://search.Microsoft.com/global/search/en-
us/PublishingImages/bing_logo.png" alt="Bing Logo" />
```

- Images are not embedded in HTML doc

Adding images

- Image file types
  - JPEG (.jpg or .jpeg), GIF (.gif), PNG (.png), or SVG (.svg) files are OK

✓ **Quick check**

You are creating several small icons that will be displayed on your webpage. These icons will render as different shapes and will use transparent color. Each icon uses a small number of colors. Which would be the best image file type for this application?

Adding images

- Creating image links
  - Example
    `<a href="Investments.html"><img src="CurrencySymbol.png" /></a>`

Adding images

- Creating an image map
  - Create a clickable image map by using <map> element
  - <area> is used to define clickable region
    - shape: rect, circle, poly
    - coords: x1,y1,x2,y2; x,y,radius; x1,y1,x2,y2,...,xn,yn
    - href
    - alt
  - The name attribute in <map> element must be set
  - On an <img> element, set the usemap attribute to the <map> element's name

Adding images

- Creating an image map
  - Example

```
<img src="worldmap.gif" width="145" height="126" alt="World Map"
usemap="#contries">

<map name="contries">
      <area shape="rect" coords="10,15,30,25" href="USA.html" alt="USA" />
      <area shape="circle" coords="95,40,20" href="China.html" alt="China" />
      <area shape="poly" coords="97,76,115,76,113,83,105,90,97,76"
href="Australia.html" alt="Australia" />
      <area shape="default" href="InvalidChoice.html" alt="Invalid" />
</map>
```
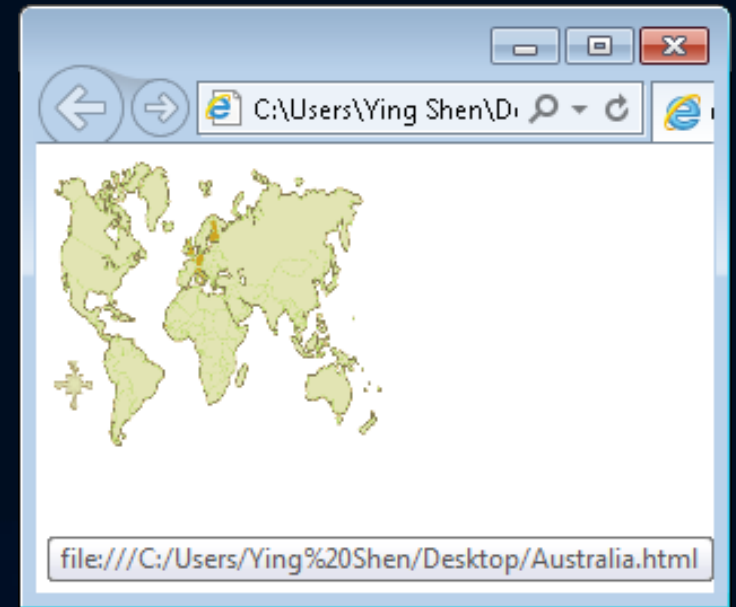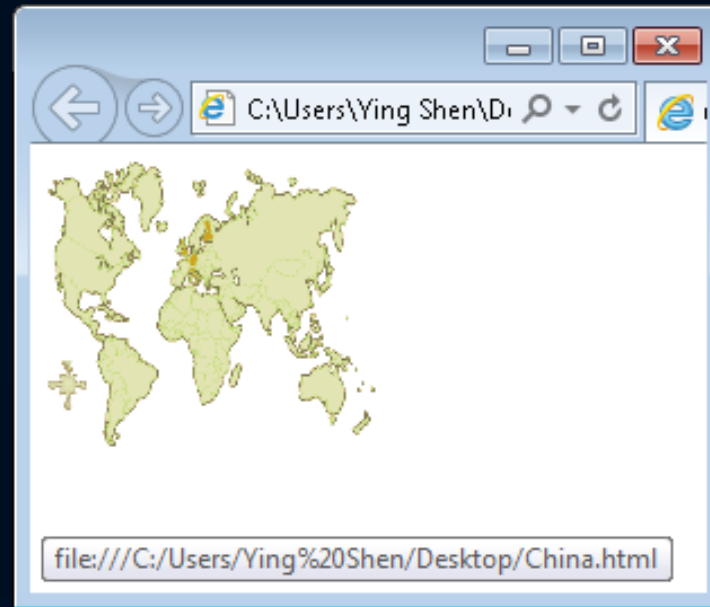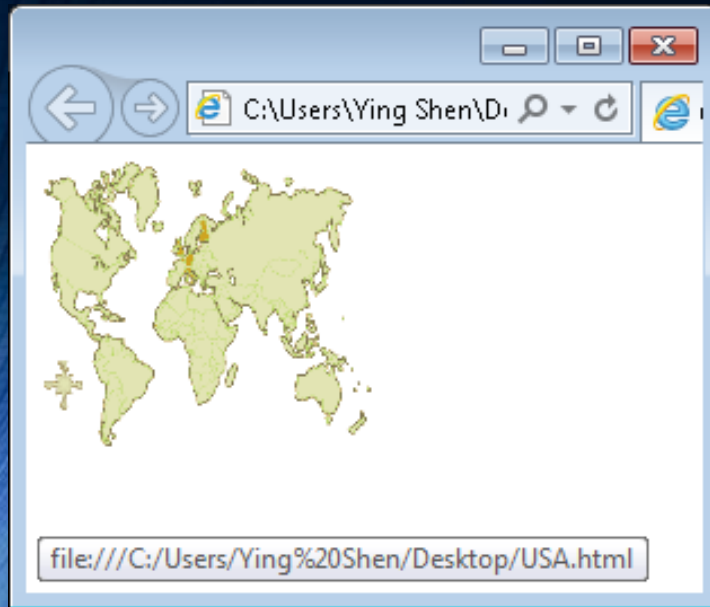
Adding images

- Creating an image map

Embedding plug-in content

- <embed> and <object>

- <embed>
  - not supported by HTML 4.01 but supported by HTML5
  - easier to use
    `<embed src="myFlashFile.swf"></embed>`
  - Attributes
    - height
    - src
    - type
    - width

Embedding plug-in content

- For browsers that don't support the <embed> tag, add fallback content

```
<embed src="myFlashFile.swf">
    <a href="/go/getflashplayer/">
        <img src="http://www.adobe.com/images/
            shared/download_buttons/get_flash_player.gif"
            alt="Get Adobe Flash player" />
    </a>
</embed>
```

Embedding plug-in content

- <object>
  - embeds an object (audio, video, Java applets, ActiveX, PDF, and Flash) within an THM doc
  - provides more functionalities
  - Attributes
    - data
    - form
    - height
    - name
    - type
    - usemap
    - width
  - At a minimum, you must define either the data or type attribute

Embedding plug-in content

- <object>
  - can be used within <body> only
  - Older versions of HTML supported other attributes, but HMTL5 support only the listed attributes plus the global attributes
  - can be used to embed another webpage in HTML doc
    - Example

    ```
    <object id="headerContent" standby="loading header…"
    title="loading header…" width="100%" height="15%"
    type="text/html" data="header.aspx"></object>
    ```

    - Embed a webpage using <iframe>
    - Avoid embedding images and image map using <object>

Embedding plug-in content

- Passing parameters to an object
  - \<param\> must be before any alternate text within \<object\>
    - Attributes: **name** and **value**
  - Example
    ```
    <object data="tada.wav">
            <param name="autoplay" value="false">
    </object>
    ```