

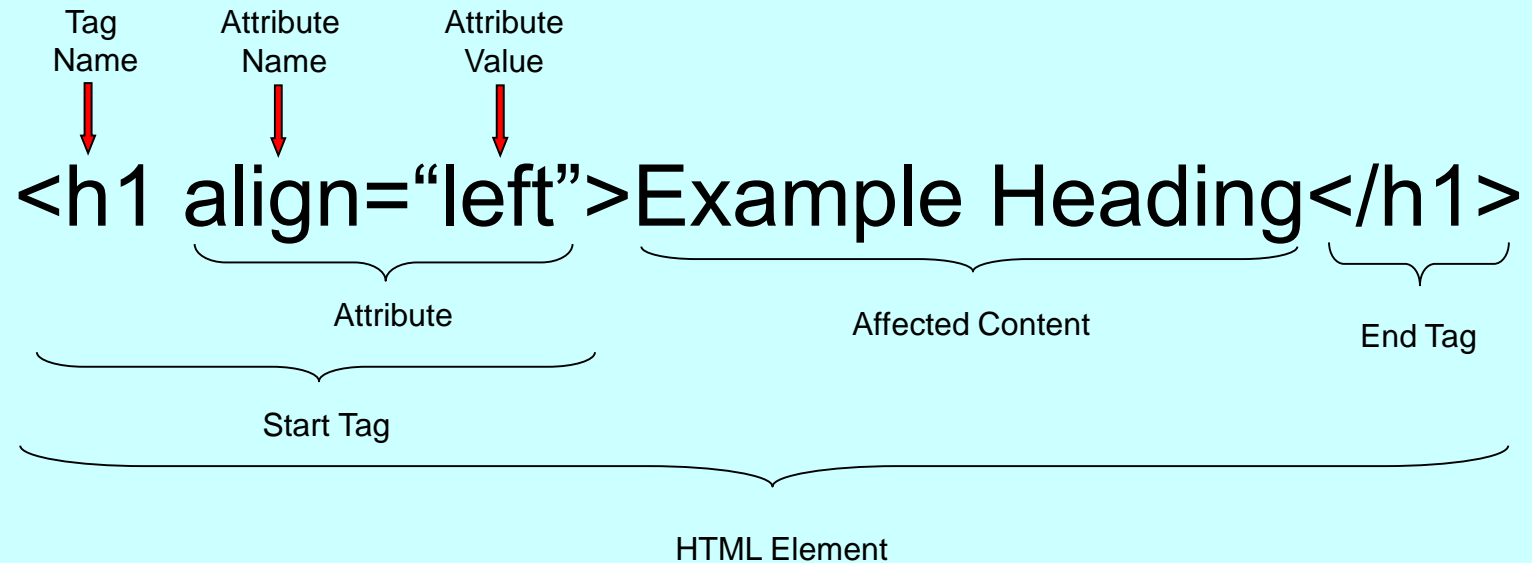
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Web Applications

CT050-3-2 (VC1)

HTML5

Introduction to HTML



Introduction to HTML5

- HTML5 is the new standard for HTML.
- HTML5 is still a work in progress, but most modern browsers have some HTML5 support.
- HTML5 is a cooperation between the World Wide Web Consortium (W3C) and the Web Hypertext Application Technology Working Group (WHATWG).

Introduction to HTML5

Some rules for HTML5 :

- > New features should be based on HTML, CSS, DOM, and JavaScript
- > Reduce the need for external plugins
- > Better error handling
- > More markup to replace scripting
- > HTML5 should be device independent

Introduction to HTML5

- New features :
 - > Canvas element for drawing
 - > Video/audio elements for media playback
 - > Better support for local offline storage
 - > New content specific elements like **article, footer, header, nav, section**
 - > New form controls like **calendar, date, time, email, url, search**

New Elements in HTML5



DOCTYPE in HTML5

The DOCTYPE declaration in XHTML :

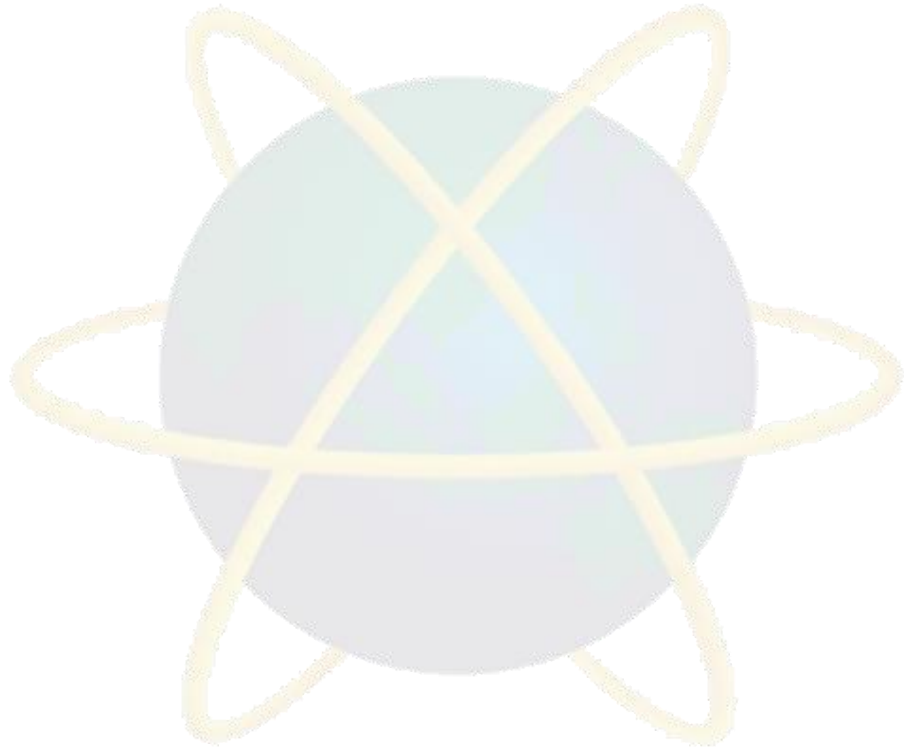
```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"  
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

Previous versions of HTML defined a lot of doctypes, and choosing the right one could be tricky. In HTML5, there is only one DOCTYPE :

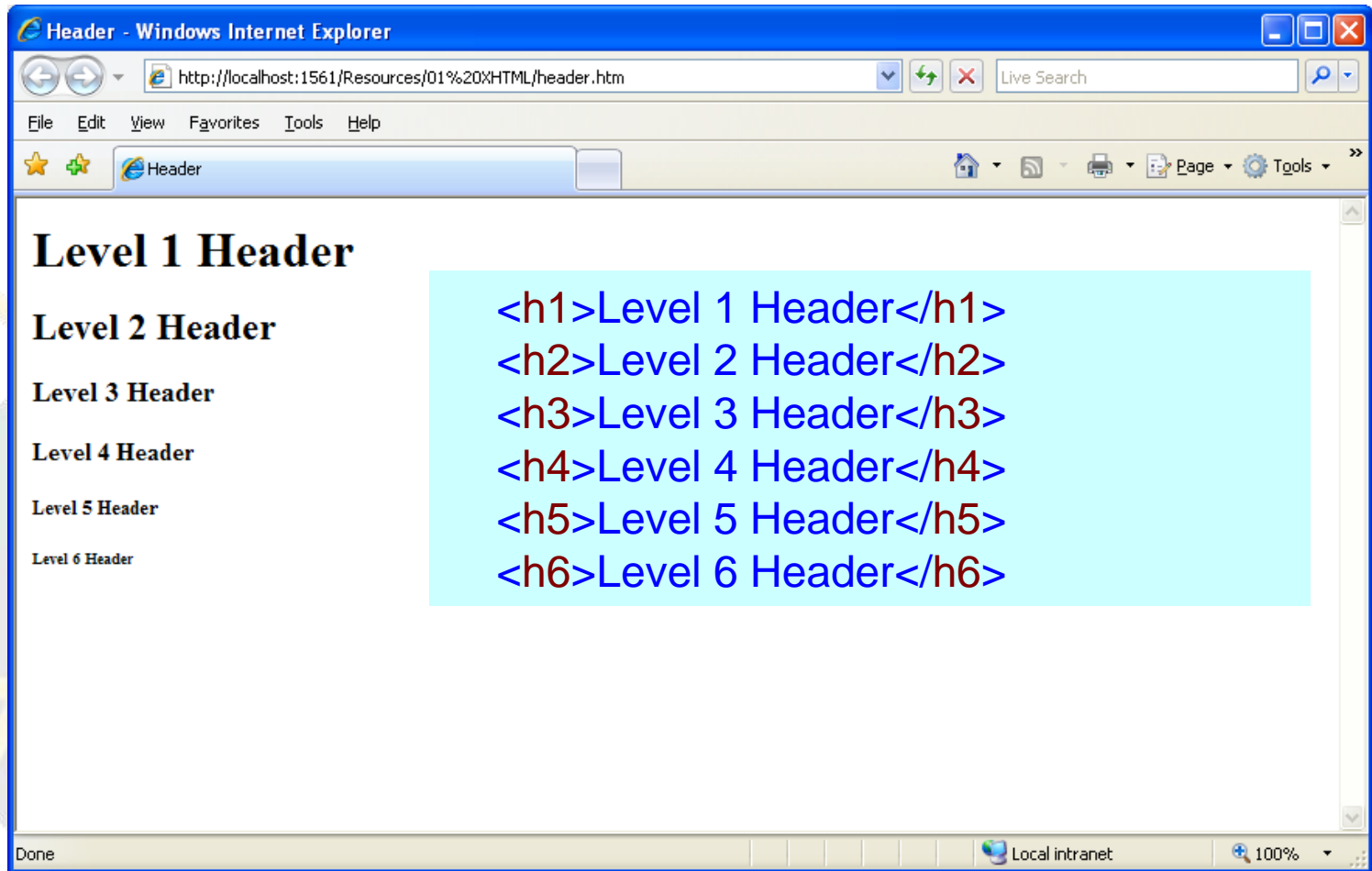
```
<!DOCTYPE html>
```

Headers

- Six headers (header elements)
 - h1 through h6



Headers



Linking

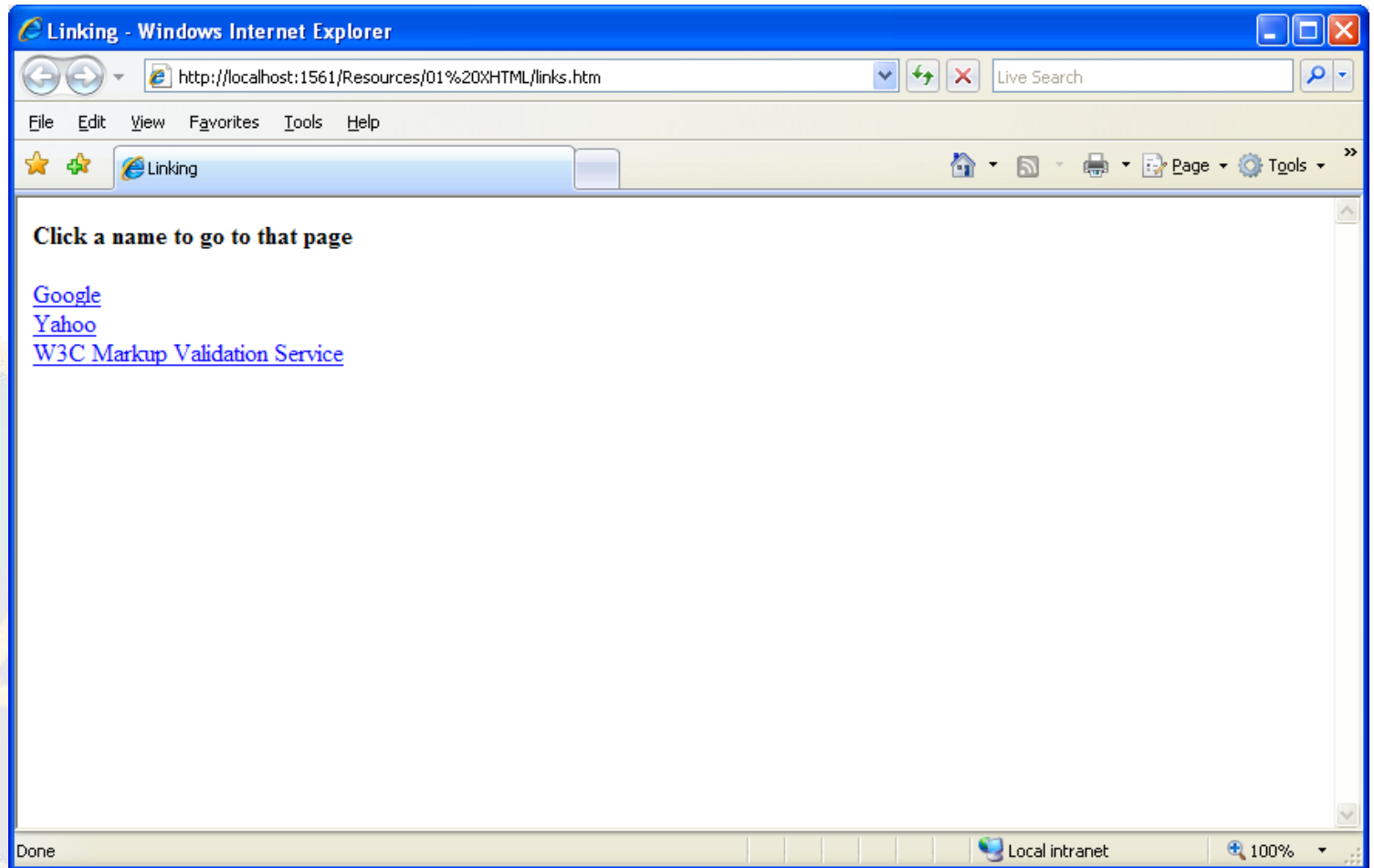
- Hyperlink
 - References other sources such as XHTML documents and images
 - Both text and images can act as hyperlinks
 - Created using the a (anchor) element
 - Attribute href
 - Specifies the location of a linked resource
 - Link to e-mail addresses using mailto: URL
- ** tag**
 - Bold
- br element
 - Line break



Linking

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Linking</title>
</head>
<body>
  <strong>Click a name to go to that page</strong>
  <br />
  <br />
  <a href="http://www.google.com">Google</a><br />
  <a href="http://www.yahoo.com">Yahoo</a><br />
  <a href="http://validator.w3.org">W3C Markup Validation Service </a>
</body>
</html>
```

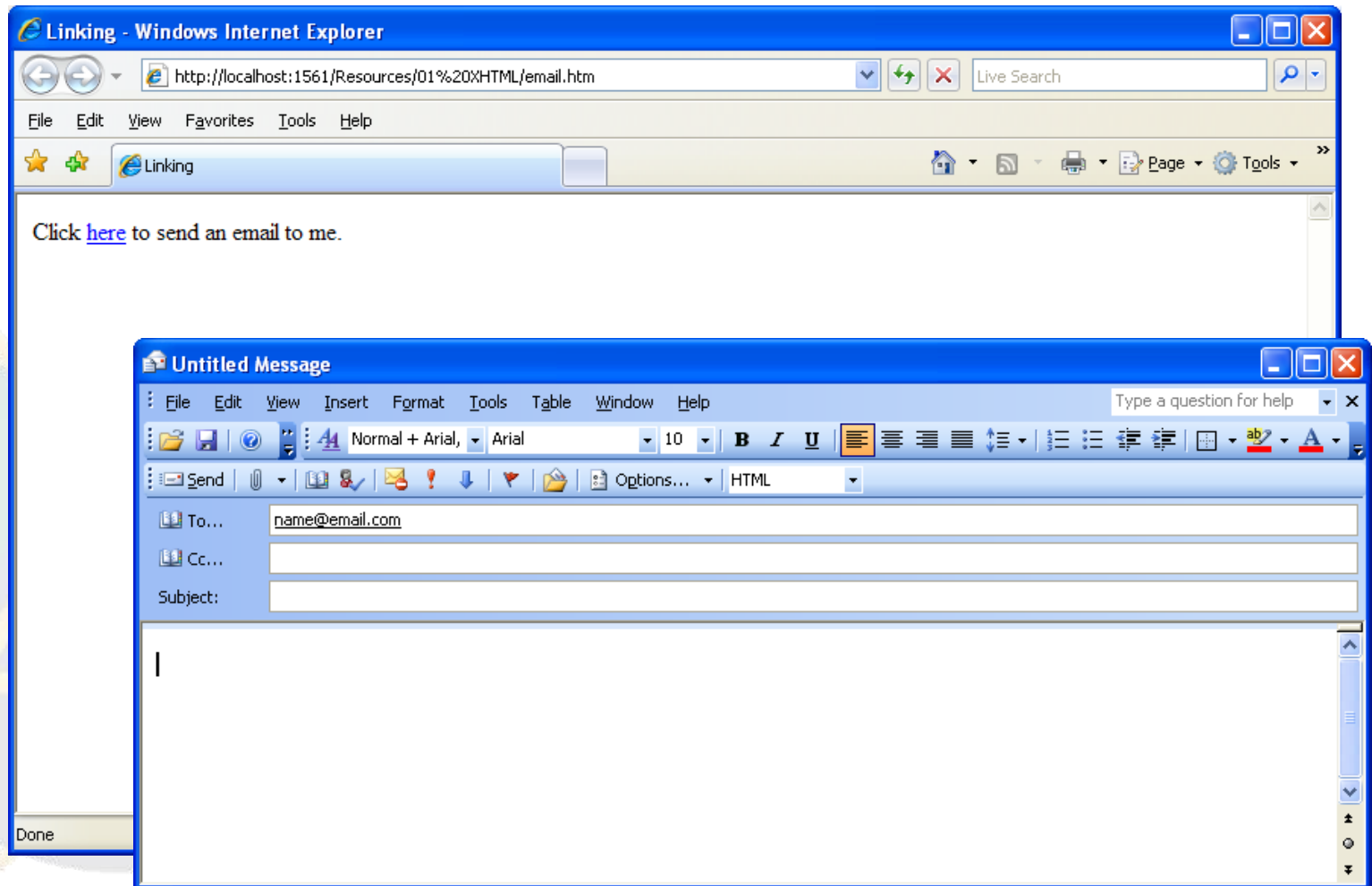
Linking



Linking

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Linking</title>
</head>
<body>
  Click <a href="mailto:name@email.com">here</a> to send an email to me.
</body>
</html>
```

Linking



Images

- Three most popular formats
 - Graphics Interchange Format (GIF)
 - Joint Photographic Experts Group (JPEG)
 - Portable Network Graphics (PNG)
 - `img` element
 - `src` attribute
 - Specifies the location of the image file
 - `width` and `height`
- Pixels (“picture elements”)
- Empty elements
 - Terminated by character `/` inside the closing right angle bracket (`>`), or by explicitly including the end tag



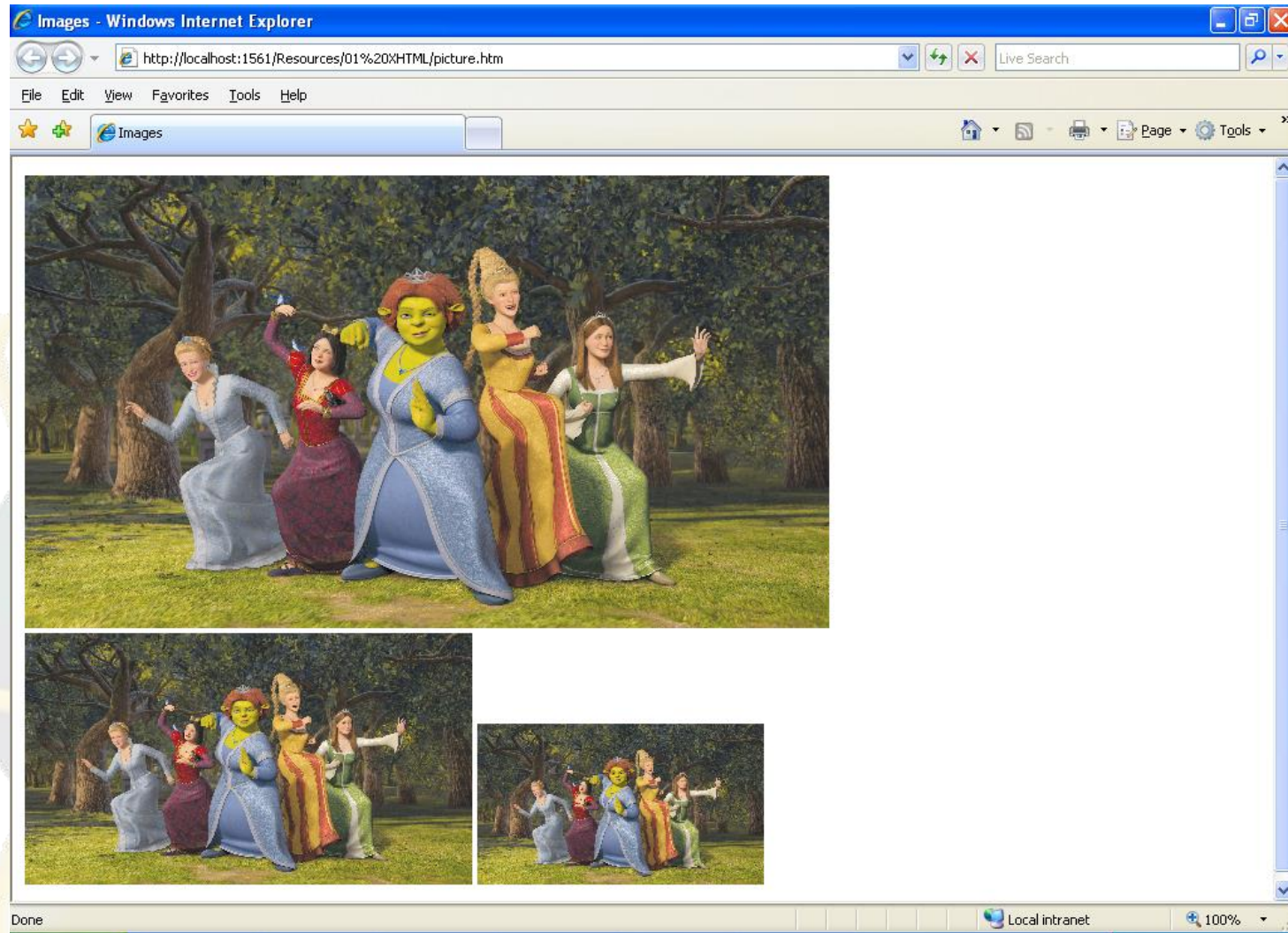
Images

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Images</title>
</head>
<body>
  
  
  
</body>
</html>
```


Images



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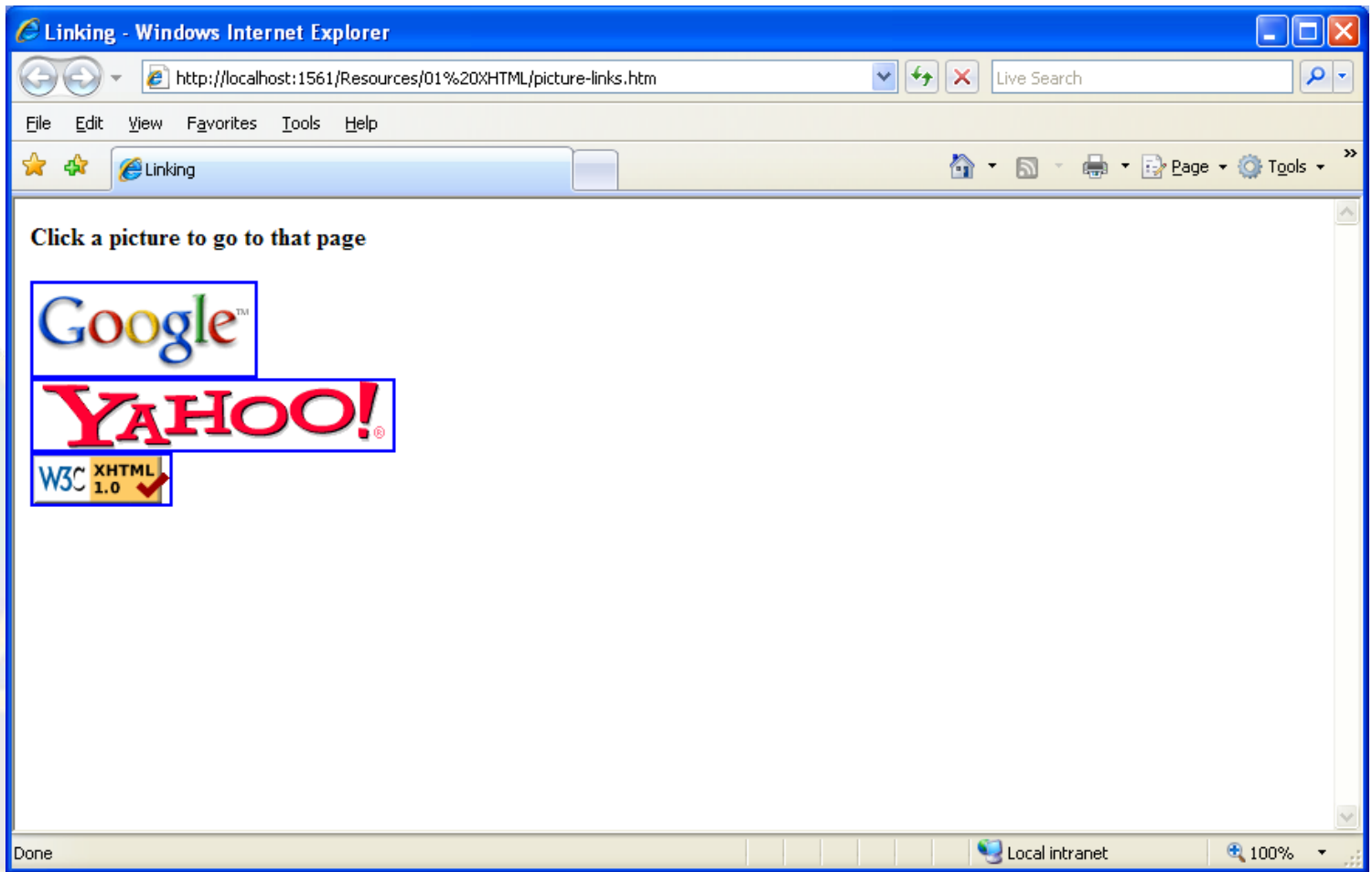




Images

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Linking</title>
</head>
<body>
  <strong>Click a picture to go to that page</strong>
  <br />
  <br />
  <a href="http://www.google.com"></a><br />
  <a href="http://www.yahoo.com"></a><br />
  <a href="http://validator.w3.org"></a>
</body>
</html>
```

Images



Special Characters and More Line Breaks

- Character entity references
- Numeric character references
- ``
 - Strike-out text
- `<sup>`
 - Superscript text
- `<sub>`
 - Subscript text
- `<hr />`
 - Horizontal rule (horizontal line)

Special Characters and More Line Breaks

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Special Characters and More Line Breaks</title>
</head>
<body>
  <p>Special Characters and More Line Breaks</p>
  <hr /> <!-- inserts a horizontal rule -->
```



Special Characters and More Line Breaks

<!-- to strike through text use tags -->

<!-- to subscript text use <sub> tags -->

<!-- to superscript text use <sup> tags -->

<!-- these tags are nested inside other tags -->

<p>This is strike through</p>

<p>Superscript: 3.14 x 10²</p>

<p>Subscript: H₂O</p>

<!-- special characters are entered using the form &code; -->

<p>Half: ½</p>

<p>Quater: ¼</p>

<p>Copyright: ©</p>

<hr /> <!-- inserts a horizontal rule -->

</body>

</html>

Special Characters and More Line Breaks

~~This is strike through~~

Superscript: 3.14 x 10²

Subscript: H₂O

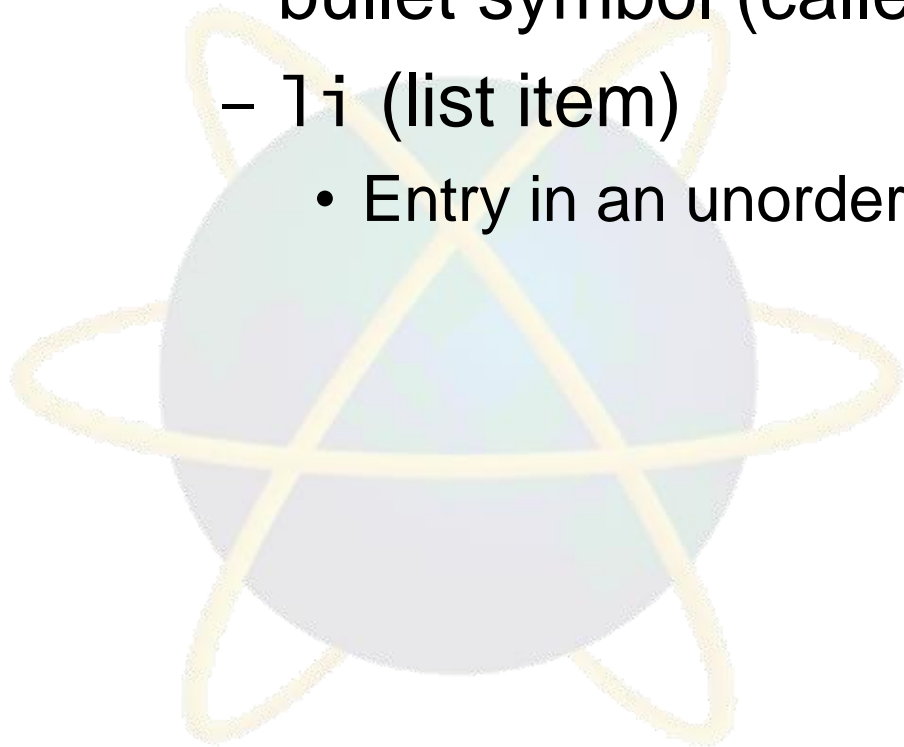
Half: ½

Quater: ¼

Copyright: ©

Unordered Lists

- Unordered list element `u1`
 - Creates a list in which each item begins with a bullet symbol (called a disc)
 - `1i` (list item)
 - Entry in an unordered list

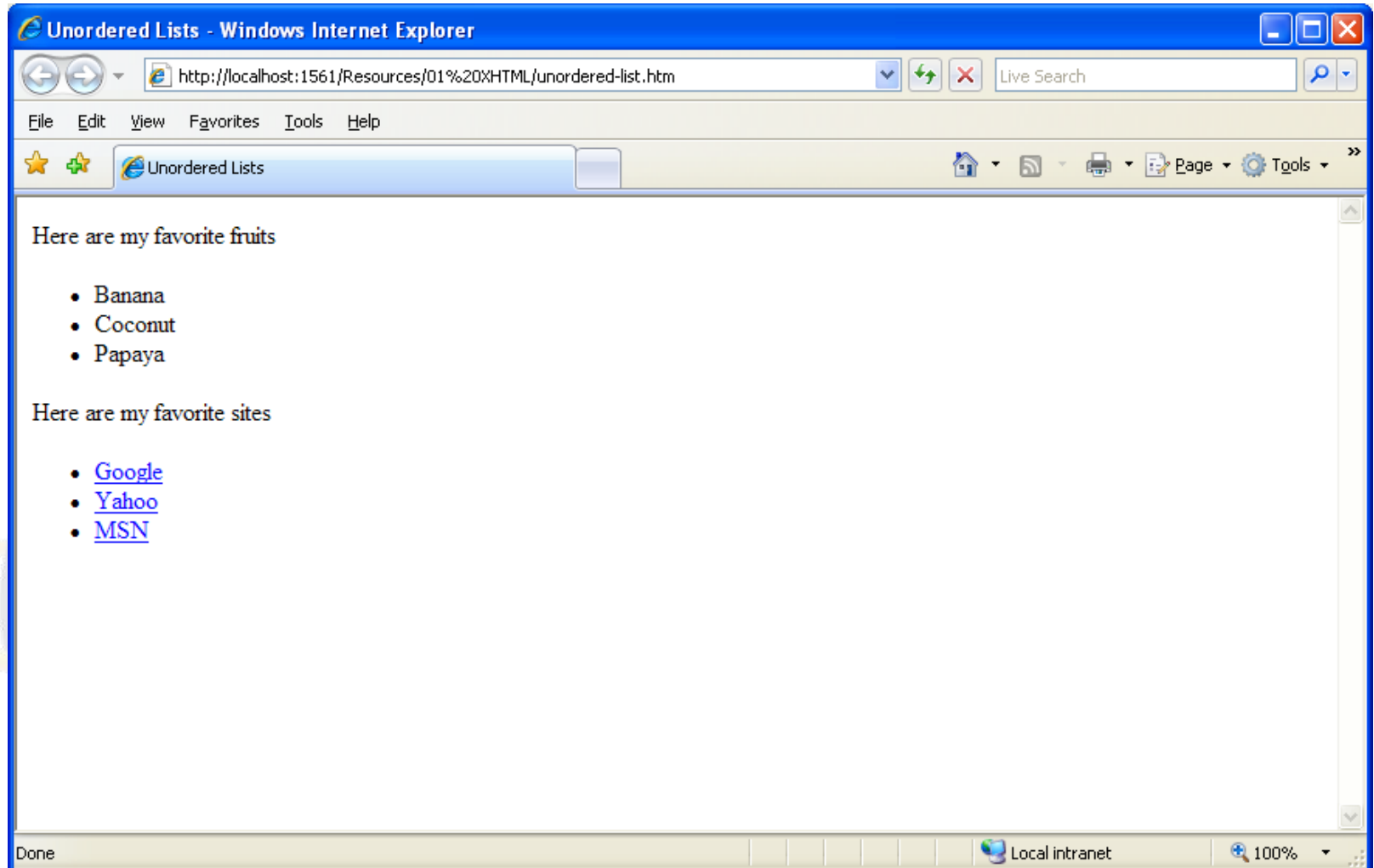


Unordered Lists

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Unordered Lists</title>
</head>
<body>
  Here are my favorite fruits<br />
  <ul>
    <li>Banana</li>
    <li>Coconut</li>
    <li>Papaya</li>
  </ul>
```

```
<p>Here are my favorite sites</p>
<ul>
  <li><a href="http://www.google.com">Google</a></li>
  <li><a href="http://www.yahoo.com">Yahoo</a></li>
  <li><a href="http://www.msn.com">MSN</a></li>
</ul>
</body>
</html>
```


Unordered Lists



Nested and Ordered Lists

- Represent hierarchical relationships
- Ordered lists (o1)
 - Creates a list in which each item begins with a number



Nested and Ordered Lists

```
<h1>The Best Features of the Internet</h1>
<!-- create an unordered list -->
<ul>
  <li>You can meet new friend from countries around the world. </li>
  <li>You have access to new media as it becomes public:
<!-- this starts a nested list, which uses a -->
  <!-- modified bullet. The list ends when you -->
  <!-- close the <ul> tag.          -->
  <ul>
    <li>New games </li>
    <li>New applications
      <!-- nested ordered list -->
      <ol>
        <li>For business </li>
        <li>For fun </li>
      </ol>
    </li>
    <li>Around the clock news </li>
    <li>Search engines </li>
  </ul>
</li>
</ul>
```

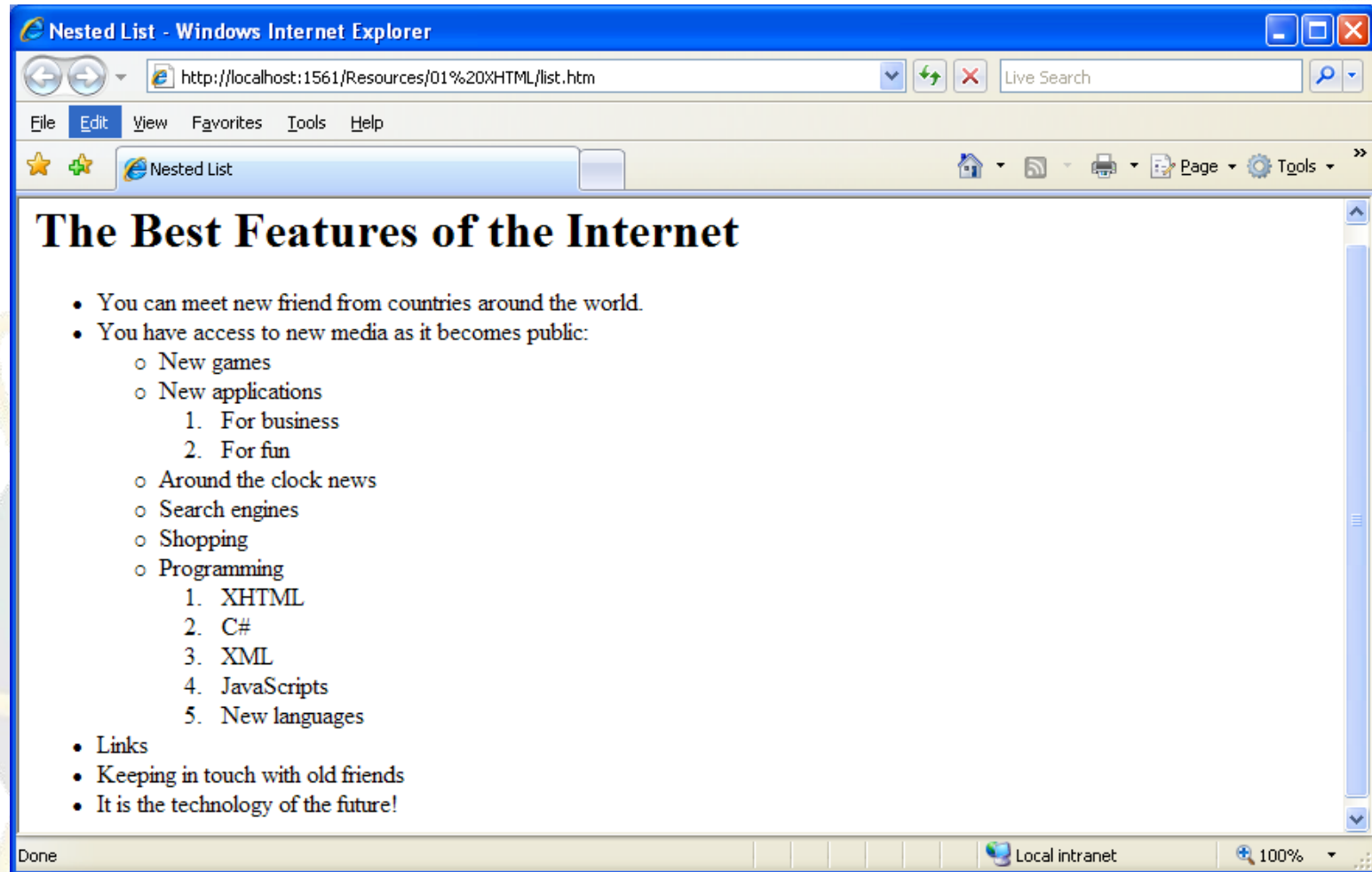


Nested and Ordered Lists

```
<li>Shopping </li>
  <li>Programming
    <!-- another nested ordered list -->
    <ol>
      <li>XHTML </li>
      <li>C#&nbsp;</li>
      <li>XML&nbsp;</li>
      <li>JavaScripts </li>
      <li>New languages </li>
    </ol>
  </li>
</ul>
<!-- ends the nested list of line 27 -->
</li>
<li>Links </li>
  <li>Keeping in touch with old friends </li>
  <li>It is the technology of the future! </li>
</ul>
```



Nested and Ordered Lists



Basic Tables

- Tables
 - Present information
- Organize data into rows and columns
- `table` element
 - Attribute `border`
 - Specifies the table's border width in pixels
 - Attribute `summary`
 - Describes the table's contents
 - Attribute `caption`
 - Describes the table's content and helps text-based browsers interpret table data

Basic Tables

- `table` element
 - Head section (header cell, defined with a `thead` element)
 - Contains header information such as column names
 - `tr` element (defines an individual table row)
 - `th` element (defines the columns in the head section)
 - Foot section (defined with a `tfoot` element)
 - Table body (defined with a `tbody` element)
 - Data cells (defined with `td` element)



Basic Tables

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Creating a Basic Table</title>
</head>
<body>
  <table border="1" summary="This table provides information about the price of fruit"
width="40%">
    <caption>
      Price of Fruit
    </caption>
    <!-- the <thead> is the first section of a table -->
    <!-- it formats the table header area      -->
```


Basic Tables

`<thead>`

`<!-- <tr> inserts a table row -->`

`<tr>`

`<!-- insert a heading cell -->`

`<th>Fruit</th>`

`<th>Price</th>`

`</tr>`

`</thead>`

`<!-- the <tfoot> is the last section of a table -->`

`<!-- it formats the table footer -->`

`<tfoot>`

`<tr>`

`<th>Total</th>`

`<th>$3.75</th>`

`</tr>`

`</tfoot>`



Basic Tables

`<!-- all table content is enclosed within the <tbody> -->`

`<tr>`

`<!-- insert a data cell -->`

`<td>Apple</td>`

`<td>$0.25</td>`

`</tr>`

`<tr>`

`<td>Orange</td>`

`<td>$0.50</td>`

`</tr>`

`<tr>`

`<td>Banana</td>`

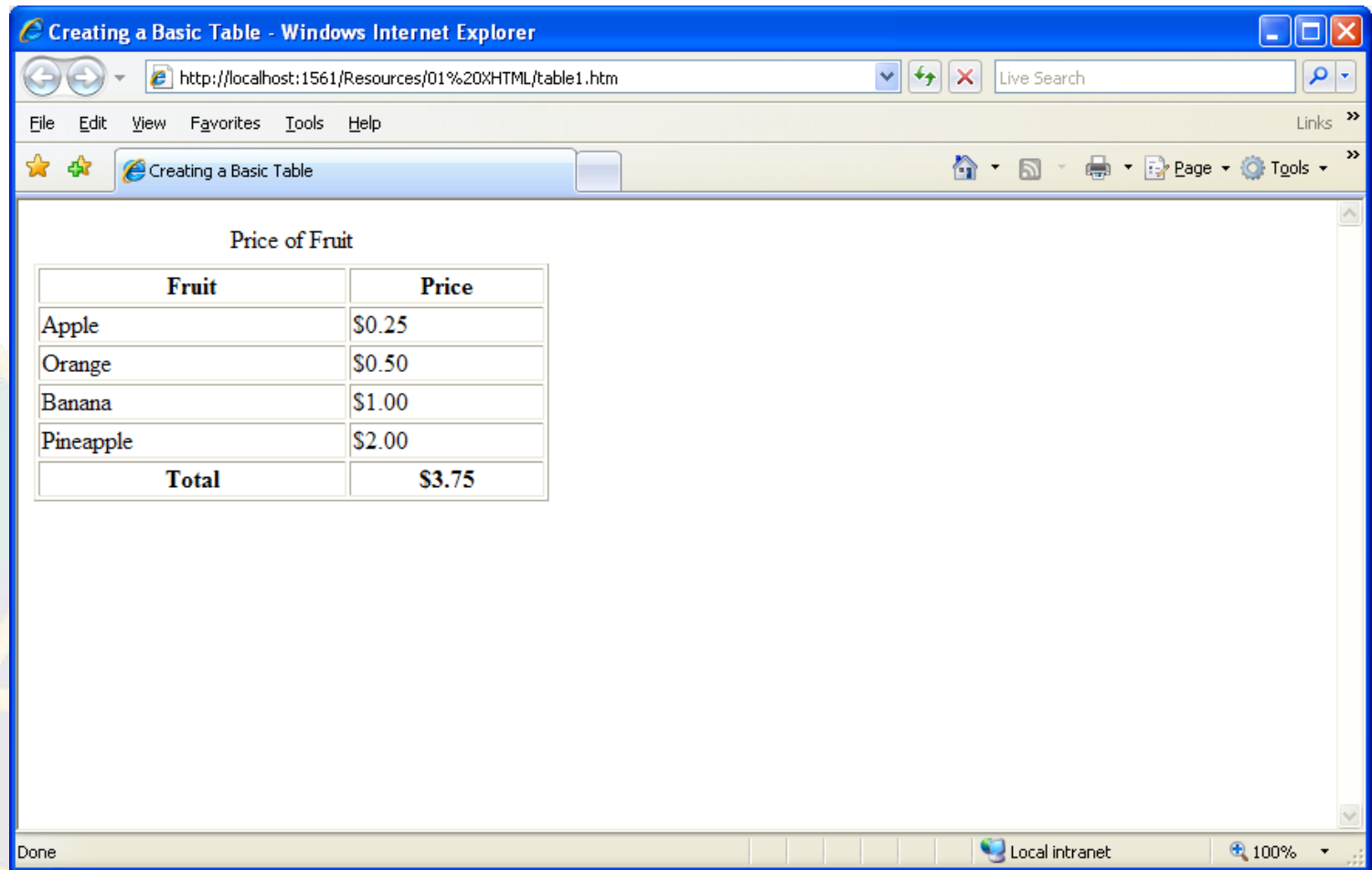
`<td>$1.00</td>`

`</tr>`

Basic Tables

```
<tr>  
    <td>Pineapple</td>  
    <td>$2.00</td>  
</tr>  
</table>  
</body>  
</html>
```

Basic Tables



Creating a Basic Table - Windows Internet Explorer

http://localhost:1561/Resources/01%20XHTML/table1.htm

File Edit View Favorites Tools Help

Creating a Basic Table

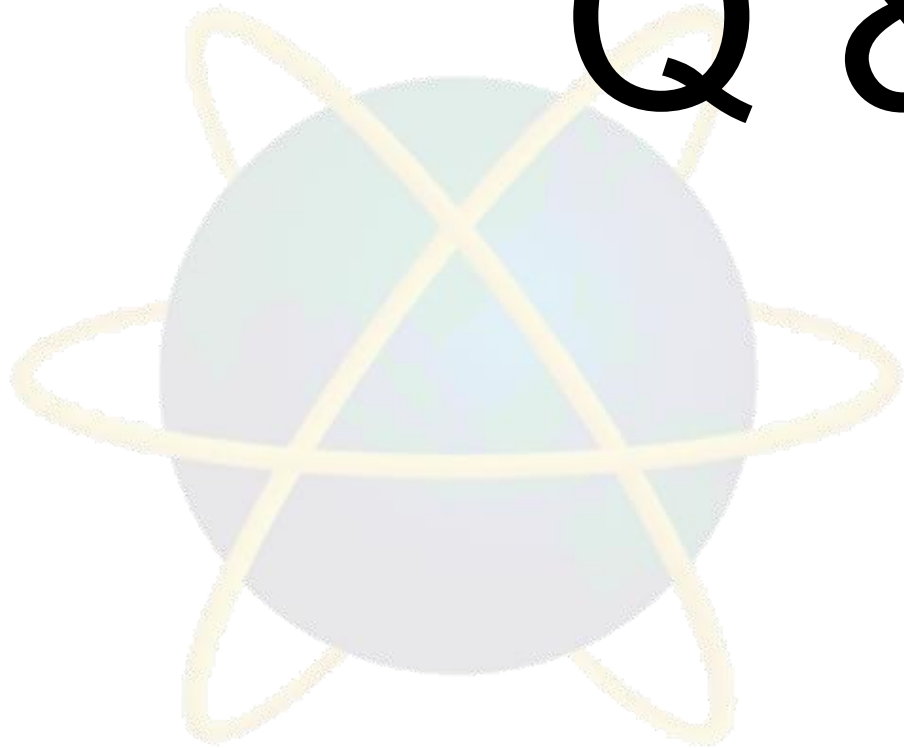
Price of Fruit

Fruit	Price
Apple	\$0.25
Orange	\$0.50
Banana	\$1.00
Pineapple	\$2.00
Total	\$3.75

Done Local intranet 100%

Question and Answer Session

Q & A



What we will cover next

- CSS

