

# Lecture 6: Working with HTML

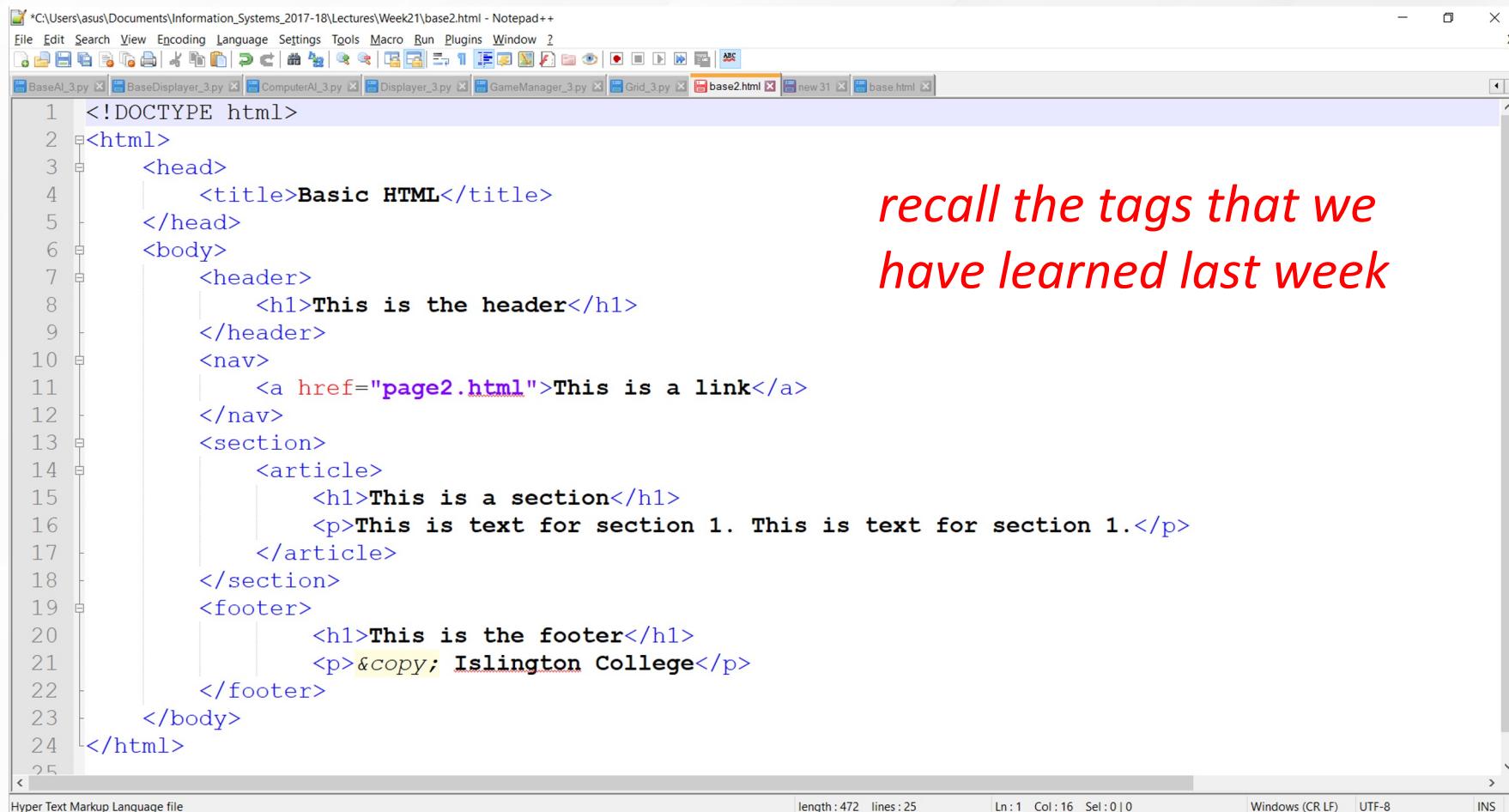
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# Contents

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- *Working with images and media files*
- *HTML formatting tags*
- *HTML lists*
- *HTML tables and forms*

# Basic HTML document



The screenshot shows a Notepad++ window displaying a basic HTML document. The file path is C:\Users\asus\Documents\Information\_Systems\_2017-18\Lectures\Week21\base2.html. The code is as follows:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Basic HTML</title>
  </head>
  <body>
    <header>
      <h1>This is the header</h1>
    </header>
    <nav>
      <a href="page2.html">This is a link</a>
    </nav>
    <section>
      <article>
        <h1>This is a section</h1>
        <p>This is text for section 1. This is text for section 1.</p>
      </article>
    </section>
    <footer>
      <h1>This is the footer</h1>
      <p>&copy; Islington College</p>
    </footer>
  </body>
</html>
```

*recall the tags that we have learned last week*

# Inserting images

- Inserting images is simple as

```

```

*filename of the image, given that it is in the same directory as the html file; if not full path must be specified*

*an alternative text for the image, shows up if the image fails to load; generally describes the image*

```

```

*specify custom width and height in terms of pixels*

# HTML <figure> tag

- Semantic tag for grouping images and their labels

```
<figure>
```

```
    
```

```
        <figcaption>Fig.1 - Python</figcaption>
```

```
</figure>
```

*<figcaption> defines the caption for the figure element*

# Using images as links

---

```
<a href="page2.html">  
    
</a>
```

*putting the image inside an anchor tag will  
make it behave like a link*

# HTML <video> tag

- allows to embed a video in a webpage

```
<video width="400" controls>  
  <source src="movie.mp4" type="video/mp4">  
</video>
```

*↑  
name of video file*

*↑  
media type of video  
file*

*specifying the control attribute  
adds video control buttons such as  
play, pause*

- supported media types

Format	Media/MIME type
MP4	video/mp4
WebM	video/webm
Ogg	video/ogg

# HTML <video> tag

---

- enabling autoplay and loop the video

```
<video width="400" autoplay loop>  
  <source src="movie.mp4" type="video/mp4">  
</video>
```

*will automatically play the video  
once the web page is loaded and  
will put it in a loop*

# HTML <audio> tag

- allows to embed audio/music in the web page

```
<audio controls>
```

```
    <source src="song.mp3" type="audio/mpeg">
```

```
</audio>
```

*name of audio file*



*media type of  
audio file*

- supported media types

Format	Media/MIME type
MP3	audio/mpeg
Ogg	audio/ogg
Wav	audio/wav

# HTML <audio> tag

- enabling autoplay and loop the audio

```
<audio autoplay loop>  
  <source src="song.mp3" type="audio/mpeg">  
</audio>
```

*will automatically play the audio  
file once the web page is loaded  
and will put it in a loop*

# HTML formatting tags

<b> - Bold text	<b>This is a text.</b>	<b>This is a text.</b>
<strong> - Important text	<strong>This is a text.</strong>	<b>This is a text.</b>
<i> - Italic text	<i>This is a text.</i>	<i>This is a text.</i>
<em> - Emphasized text	<em>This is a text.</em>	<i>This is a text.</i>
<mark> - Marked text	<mark>This is a text.</mark>	<b>This is a text.</b>
<small> - Small text	<small>This is a text.</small>	This is a text.
<del> - Deleted text	<del>This is a text.</del>	<b>This is a text.</b>
<ins> - Inserted text	<ins>This is a text.</ins>	<u>This is a text.</u>
<sub> - Subscript text	Text<sub>This is a text.</sub>	Text <u>This is a text.</u>
<sup> - Superscript text	Text<sup>This is a text.</sup>	Text <sup>This is a text.</sup>

# HTML lists

---

- There are 2 types of lists in HTML
  - unordered lists (lists with bullets)
  - ordered lists (lists with numbers)

<ul></ul>	Unordered list
<ol></ol>	Ordered list
<li></li>	An item in a list

An unordered list:

- item
- item
- item
- item

An ordered list:

1. item
2. item
3. item
4. item

# Unordered list

---

```
<h2>Programming Languages</h2>
```

```
<ul>
  <li>Python</li>
  <li>Java</li>
  <li>JavaScript</li>
</ul>
```



*list bullet types can  
be changed using  
CSS, more on that  
later*

## Programming Languages

- Python
- Java
- JavaScript

# Ordered list

---

```
<h2>Programming Languages</h2>
```

```
<ol>
  <li>Python</li>
  <li>Java</li>
  <li>JavaScript</li>
</ol>
```



## Programming Languages

1. Python
2. Java
3. JavaScript

# Ordered list

```
<h2>Programming Languages</h2>
```

```
<ol type='a'>
  <li>Python</li>
  <li>Java</li>
  <li>JavaScript</li>
</ol>
```

type = "1"	Numbers (default)
type = "A"	Uppercase letters
type = "a"	Lowercase letters
type = "I"	Uppercase roman numbers
type = "i"	Lowercase roman numbers



## Programming Languages

- a. Python
- b. Java
- c. JavaScript

# Nested lists

---

```
<ol>  
  <li>Vegetables</li>  
  <li>Fruits  
    <ol type="i">  
      <li>Apple</li>  
      <li>Mango</li>  
    </ol>  
  </li>  
  <li>Juice</li>  
</ol>
```



1. Vegetables
2. Fruits
  - i. Apple
  - ii. Mango
3. Juice

# HTML tables

---

- tables are defined using the `<table>` tag
- a row is defined using the `<tr>` tag, a cell in the table is defined by the `<td>` tag
- a table header is defined by the `<th>` tag
- the `<td>` elements are the data containers of the table
- they can contain all sorts of HTML elements; text, images, lists, other tables, etc

# HTML tables

```
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>John</td>
    <td>Smith</td>
    <td>22</td>
  </tr>
  <tr>
    <td>Mike</td>
    <td>Jackson</td>
    <td>22</td>
  </tr>
</table>
```



Firstname	Lastname	Age
John	Smith	22
Mike	Jackson	22

# HTML tables

```
<table border="1" width="100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr align="center">
    <td>John</td>
    <td>Smith</td>
    <td>22</td>
  </tr>
  <tr align="center">
    <td>Mike</td>
    <td>Jackson</td>
    <td>22</td>
  </tr>
</table>
```



- *border can be specified by setting the value of the border attribute*
- *width = "100%" means the width of the table spans the total width of the browser*
- *text alignment can be set by setting the value of the align attribute*

Firstname	Lastname	Age
John	Smith	22
Mike	Jackson	22

# HTML tables

- to make a cell span more than 1 column, the *colspan* attribute can be used

```
<table border="1" width="100%">
  <tr>
    <th>Name</th>
    <th colspan="2">Telephone</th>
  </tr>
  <tr>
    <td>Bill Jones</td>
    <td>5598238</td>
    <td>2284948</td>
  </tr>
</table>
```



Name	Telephone
Bill Jones	5598238 2284948

# HTML tables

- to make a cell span more than 1 row, the *rowspan* attribute can be used

```
<table border="1" width="100%">
  <tr>
    <th>Name:</th>
    <td>Bill Jones</td>
  </tr>
  <tr>
    <th rowspan="2">Telephone:</th>
    <td>5598238</td>
  </tr>
  <tr>
    <td>2284948</td>
  </tr>
</table>
```



<b>Name:</b>	Bill Jones
<b>Telephone:</b>	5598238
	2284948

# HTML forms

---

- The HTML <form> element defines a form that is used to collect input from users
- A form contains various input elements such as
  - *text fields*
  - *checkboxes*
  - *radio buttons*
  - *submit buttons, etc*

# The <input> element

- most important form element
- can be displayed in several ways depending upon the *type* attribute

Type	Description
<input type="text">	Defines a one line text input field
<input type="radio">	Defines a radio button
<input type="checkbox">	Defines a check box
<input type="submit">	Defines a button to submit the form

# Example form

```
<form onsubmit="">  
    First name:<br>  
    <input type="text" name="firstname">  
    <br>  
    Last name:<br>  
    <input type="text" name="lastname">  
    <br><br>  
    <input type="submit" value="submit form">  
</form>
```

- *onsubmit attribute defines what to do when the form is submitted, for example a JS function can be called*
- *the name attributes give unique names to the input fields here, useful for extracting the actual data that they contain, more on that later*
- *value attribute in the last input element is the text displayed in the button*



First name:

Last name:

**submit form**

# Example form

```
<form onsubmit="">
  First name:<br>
  <input type="text" name="firstname">
  <br>
  Last name:<br>
  <input type="text" name="lastname">
  <br>
  Gender: <input type="radio" name="gender"
  value="male" checked> Male <input type="radio"
  name="gender" value="female"> Female
  <br><br>
  <input type="submit" value="submit form">
</form>
```

- *checked attribute in the radio buttons defines which radio button is by default selected*
- *value attribute defines the data that is binded with the radio button*



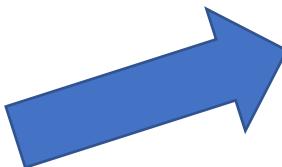
First name:

Last name:

Gender:  Male  Female

# Example form

```
<form onsubmit="">
  First name:<br>
  <input type="text" name="firstname">
  <br>
  Last name:<br>
  <input type="text" name="lastname">
  <br>
  Gender: <input type="radio" name="gender" value="male" checked>
  Male <input type="radio" name="gender" value="female"> Female
  <br>
  Subjects: <input type="checkbox" name="subject1" value="Python">
  Python <input type="checkbox" name="subject2" value="Java"> Java
  <br><br>
  <input type="submit" value="submit form">
</form>
```



First name:

Last name:

Gender:  Male  Female

Subjects:  Python  Java

# <select> element

- creates a drop-down list

```
<form onsubmit="">
    Group:
    <select name="group">
        <option value="C1">C1</option>
        <option value="C2">C2</option>
        <option value="N1">C3</option>
        <option value="N2">C4</option>
    </select>
    <br><br>
    <input type="submit">
</form>
```



Group: C1 ▾

Submit

# <textarea> element

- defines a multiline input field

- *rows attribute defines the number of lines in the text area*
- *cols attribute defines the visible width of the text area*
- *placeholder attribute defines the initial text displayed in the text area*

```
<form onsubmit="">  
  <b>Message:</b><br>  
  <textarea name="message" rows="10" cols="30"  
placeholder="write a message"></textarea>  
  <br>  
  <input type="submit">  
</form>
```



Message:

write a message

Submit

---

# End of Lecture 7

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# Thank you !

# Any questions ?