

**Purposefully
different,
consistently
excellent**

**Welcome to EEN1037: Web Applications
Development**

HTML

Hyper Text Markup Language

Week 1

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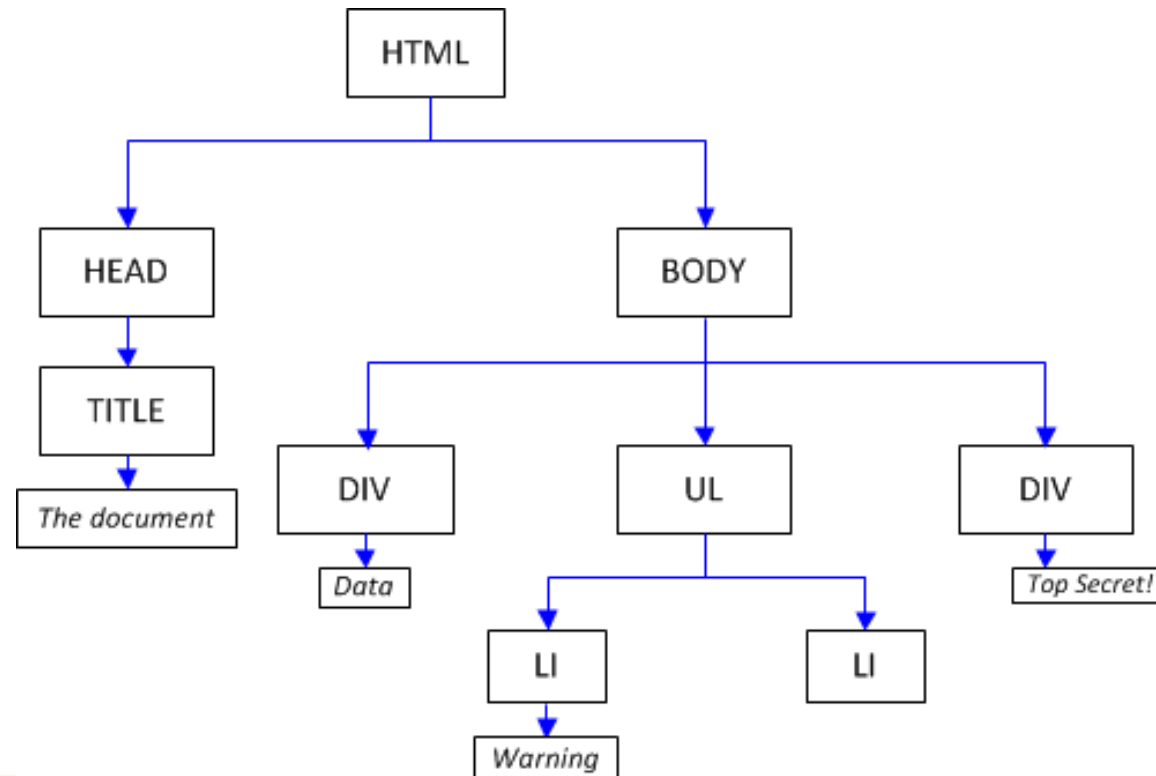
HTML (4.0)

- Web pages received and interpreted by web clients (or browsers) are written in HTML
- Plain text and platform-independent
- Extensions: .html, .htm
- Can use any editor (notepad, wordpad, specific editors)
- Online html editors e.g.
https://www.w3schools.com/html/tryit.asp?filename=tryhtml_basic



HTML DOM

- Defines a standard for accessing and manipulating HTML documents



Correct HTML file

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 transitional//EN">
```

```
<html>
```

```
  <head>
```

```
    <title>Welcome!</title>
```

```
  </head>
```

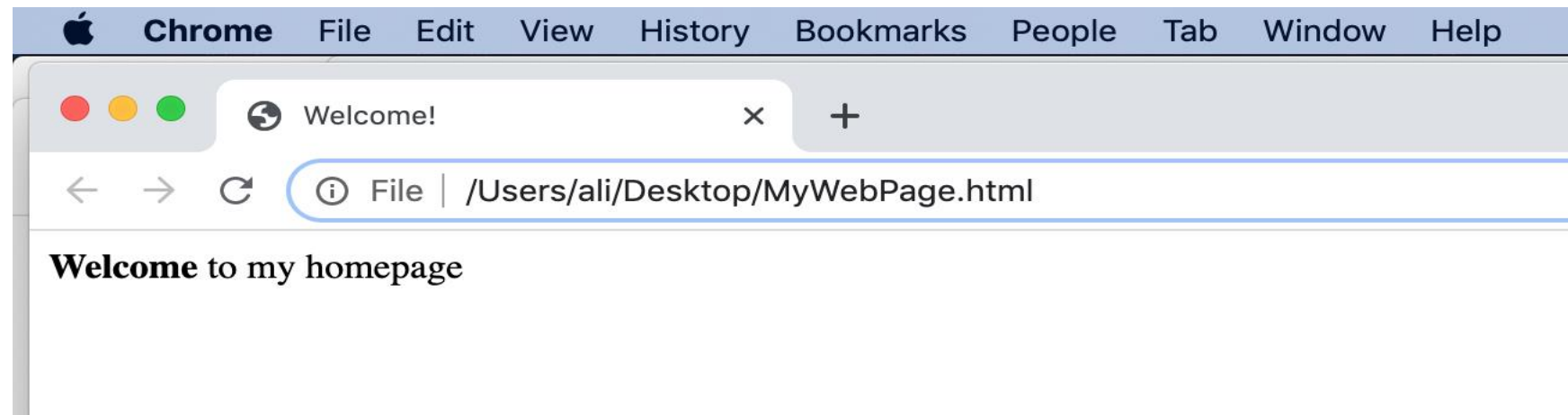
```
  <body>
```

```
    <b>Welcome</b> to my homepage
```

```
  </body>
```

```
</html>
```

Doctype specifies which version of HTML the website is using



Start and end tags

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 transitional//EN">
```

```
<html>
```

```
<head>
```

```
<title>Welcome!</title>
```

Start tag

```
</head>
```

```
<body>
```

```
<b>Welcome</b> to my homepage
```

```
</body>
```

```
</html>
```

End tag

- Tag is a basic HTML concept
- Correct HTML file consists of properly nested tags and text.

Elements

- We can look at each Tag as an object.
- A HTML file is an <HTML> object, consisting of a <HEAD> and a <BODY> object

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 transitional//EN">
```

```
<html>
```

```
  <head>
```

```
    <title>Welcome!</title>
```

```
  </head>
```

```
  <body>
```

```
    <b>Welcome</b> to my homepage
```

```
  </body>
```

```
</html>
```

<head> object is
information about
the page

<body> object is the
actual content

Attributes

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0  
transitional//EN">
```

```
<html>
```

```
<head>
```

```
<title>Welcome!</title>
```

```
</head>
```

```
<body>
```

```
<b>Welcome</b> to my home
```

```

```

```
Go to
```

```
<a href="mccs390.html">MCCS390</a>
```

```
homepage.
```

```
</body>
```

```
</html>
```

An element may have attributes, describing the property of that element

Attribute of the element

Attribute of the element <a>

Empty-element tag

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0  
transitional//EN">
```

```
<html>
```

```
<head>
```

```
<title>Welcome!</title>
```

```
</head>
```

```
<body>
```

```
<b>Welcome</b> to my homepage.
```

```

```

```
Go to
```

```
<a href="mccs390.html">MCCS390</a>
```

```
homepage.
```

```
</body>
```

```
</html>
```

Some tags don't have an end tag. This is not considered an error in HTML (in XML it would be an error!)



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Special Characters < >

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML  
4.0 transitional//EN">
```

```
<html>
```

```
<head>
```

```
<title>Welcome!</title>
```

The characters '<' and '>'
(and a few other¹s) are
reserved by HTML. To use
them, you need to use the
alias.

```
</head>
```

```
<body>
```

1 < 2 and

3 > 2

```
</body>
```

```
</html>
```

¹https://www.w3schools.com/html/html_entities.asp

Comments

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0  
transitional//EN">
```

```
<html>
```

```
<head>
```

```
<title>Welcome!</title>
```

```
</head>
```

```
<body>
```

```
1 &lt; 2 and
```

```
3 &gt; 2
```

```
<!-- comment is written like this -->
```

```
</body>
```

```
</html>
```

Comments are not part of the HTML content, and they are delimited by `<!--` and `-->`

Basic HTML Tags

- Basic structure: p, br, hr, h1, h2
- Text formatting: i, b, font
- Image: img
- Hyperlink: a
- List: ul, li, ol
- Table: table, tr, th, td (more on the hands-on)

Basic Text

...

`<body>`

`<p>` Welcome to my homepage `</p>`

`
` Line break

`<p>` **You can find my email at the
bottom of this page**

`</body>`

The end tag
can be omitted

...

Text formatting

...

<body>

<p> This text is ** bold and *<i>*
italics **</i>****

There is also a **<font size="+1"**
color="red" face="Arial"> more general
formatting tag ****.

</p>

</body>

...



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Image

...

<body>

<p> Here is a photo of myself.

</p>

</body>

...

Text shown in
tips box and
when image is
missing.

URL of the
image file

Some attributes have been deprecated in
future version (and in HTML5). Check
http://www.w3schools.com/tags/tag_img.asp

Hyperlinks

...
<body>

Please review the [HTML](tutorial.html) tutorial [paragraph about anchor](tutorial.html#anchor). In particular, read the

...

</body>
...

tutorial.html

... [name="anchor">Anchor](#) is
very important in HTML...

...

A hyperlink. When you click the text between <a> and , the browser will jump to the URL specified in the href attribute

Lists

...
You should study the following:

``

`Basic HTML`

`Web ingredients:`

``

`HTTP`

`URL`

`DNS`

``

``

``

...

Lists can be nested. For better results, observe how the tags are nested.

ul- unordered list
li - list item
ol- ordered list

Let's try it

- Run any web browser ; Chrome, Firefox, Edge
- Visit <http://dcu.ie/>
- View source of the website:
 - Find the head tag, the body tag, a hyperlink in the source
- Your first website?
 - Editor: any of your choice
 - Create simple html
 - Save it with an extension html or htm
 - Open it in the Web browser from your computer



Sources

–Definitions:

- <http://www.webopedia.com/>
- <http://wikipedia.org/>
- <http://www.w3c.org/>

–Images:

- <http://google.com/>

–HTML (and other) tutorials

- <http://w3schools.com/>



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