

XHTML – EXtensible HyperText Markup Language

- Combination of HTML and XML (Extensible Markup Language)
- XHTML – all elements in HTML 4.01 combined with XML syntax
- Strict coding standard
 - Reduces incompatibility between browsers and between devices
- Will not ‘get away with’ bad coding practices

Rules for XHTML

- Write HTML tags in lower case
- All elements (tags) must be closed

`<p> This is incorrect`

`<p> This is correct</p>`

- Elements must be properly nested; for example:

`<u>This is bold and underlined </u>`

NOT `<u>This is bold and underlined </u>`

Example of **bad** HTML

- `<html><head><title>This is bad HTML</title><body><h1>Bad HTML</body>`
- Most browsers will **try** to interpret this, and most will produce something sensible.
- Problems with other devices e.g. portable devices, phones
- Important to make your web page accessible to all

Rules of XHTML

- All tags must be lower case
- All documents must have a **DOCTYPE**
- All documents must be properly formed
- All tags must be closed
- All attributes must be added properly
- The **name** attribute is changed
- Attributes cannot be shortened
- All tags must be properly nested

Rules for XHTML

- Empty elements must be closed
- Empty elements must either have end tag or start tag must end with />

- **Wrong:**

This is a break

Horizontal rule<hr>

Here is an image

- **Correct**

This is a break

Horizontal rule<hr />

Here is an image < img src="dculogo.gif" alt="DCU logo" />

Rules for XHTML

- Attribute names must be in lower case
- Attribute values must be quoted
- Attribute minimisation is forbidden
- The **id** attribute replaces the **name** attribute
- The XHTML DTD (Document Type Definition) defines mandatory elements

XHTML Rules - examples

- Attributes must be lower case and quoted:

- Wrong:

```
<table WIDTH="100%">
```

- Correct:

```
<table width="100%">
```

- Wrong:

```
<table width =100%>
```

- Correct:

```
<table width="100%">
```

XHTML Rules - examples

- Attribute minimisation is forbidden e.g.

`<input checked = "checked" />` instead of `<input checked>`

`<frame noresize="noresize" />` instead of `<frame noresize>`

- **id** instead of **name**

``

instead of

``

Note: older browsers use name rather than id, so you may specify both

``

Mandatory XHTML Elements

- All XHTML documents must have a DOCTYPE declaration as well as `html`, `head` and `body` elements and `title` must be inside `head` element.
- Minimum XHTML document template:

```
<!DOCTYPE Doctype goes here>  
<html xmlns="http://www.w3.org/1999/xhtml">  
<head>  
</head>  
<body> Body goes here </body></html>
```

Mandatory XHTML Elements

- Note: DOCTYPE declaration is not part of XHTML document itself. It is not an XHTML element, so no closing tag required.
- Note: `xmins` attribute inside `<html>` tag is required in XHTML, but validator on `w3.org` does not complain when this attribute is missing. “`xmins=http://www.w3.org/1999/xhtml`” is fixed and is added to the `<html>` tag automatically
- You can validate any of your documents at <http://validator.w3.org/>

XHTML – DTD (Document Type Definition)

- **<!DOCTYPE>** is mandatory, always on first line of XHTML document – it defines the syntax being used
- Example DOCTYPE code:

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

XHTML - DTD

- There are three XHTML document types:
 - **strict** (used with CSS)
 - **transitional** (used for browsers that do not support CSS)
 - **frameset** (used with frames)

Note: Both HTML and XHTML documents use suffix `.htm` or `.html` in file names