

Tutorial Week 3 Building a Web Site

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The World Wide Web

1. In XHTML, the `` tag is said to be deprecated. What does deprecated mean?

A deprecated facility in a software environment is one which has been replaced by a (hopefully) better equivalent. It is still available, but you can expect it to disappear in a subsequent release.

2. What does it mean to validate an XHTML document and why should we bother to do it?

This is checking the use of the XHTML tags against the DTD and guarantees that the file will be such that any program using which expects the DTD structure should have no trouble with it. For instance a browser should have no trouble rendering a validated XHTML file. Among the checks are that the file respects the hierarchy, only uses XHTML tags, provides all mandatory variables like image alt, doesn't use deprecated tags, etc. Breaking the rules leads to HTML which is hard for a computer to work with – one example being the failure of some browsers to display a particular web page.

Ubiquitous computing is also made easier since it is much easier to render content in a variety of ways if it is all in the same structure.

3. What is a URL and what is its structure?

A URL typically looks like:

aaaa:	//bbb.bbb.bbb	/ccc/ccc/ccc	?ddd	where
aaaa	is the protocol and determines what kind of data is included			
bbb.bbb.bbb	is the Domain Name Service name of the web site			
ccc/ccc/ccc	is the file path of the desired file - note this case sensitive			
ddd	is a list of parameters (e.g. form data) sent to a receiving program (if the URL is a program)			

4. Describe the different ways in which you might move from one page to another using a web browser.

The principal means of navigating is to click over a link which will appear in a different colour and underlined.

Other means include – editing the URL text field and pressing return; using the open page menu item; using the back and forward buttons; using the history; using bookmarks or favourites; using a web search engine.

5. Describe how a web site fits into the file system of a large organisation with many computers and storage systems and describe the internal structure of the web site.

The organisation typically divides the responsibility for file management among a number of server machines. One or more of these machines will act as gateways to the web and therefore be web servers. The file store managed by these servers will constitute the web site, the other file stores are not directly connected to the web.

The organisation might also have an **intranet** – a set of pages, similar in structure to a web site, but which is only visible inside the enterprise. *NB – I have not told them about intranets.*

A web site is a set of files which typically include static web pages in HTML; files available for transfer by FTP; various collections of programs – e.g. CGI scripts or Java servlets. They also have data storage, such as a database system and means to link programs to the database.

XHTML

6. What is meant by an empty element and how would you recognise one in an XHTML document?

An empty element has no character content. In `<p>XXX</p>`, the XXX is called the character content of the element. Empty tags have no content. They appear as `
</br>` or more simply `
`.

7. What is meant by a core attribute and what uses can be put to the name and title core attributes?

A core attribute is one that is available to all elements – e.g. all elements have can have a *name* or *ID* attribute. Other core attributes are *title*, *style*, *lang* and *class*. The *name* attribute is used in various ways – identifying a point in a document to link to, naming form parameters so that a program can access them are the two examples discussed in the lectures.

The *title* attribute is used to apply a title to the element. Depending on the browser you are using, the title may appear in the address bar when the mouse rolls over the element, or it may appear as a pop-up tool tip on the screen, or it may even appear on the title bar. It serves no other function but to assign a name to that element for the browser to show to the user by some means.

8. Distinguish the three flavours of XHTML and distinguish between block and inline elements.

Strict XHTML accords to all the rules and forbids deprecated elements. **Transitional** XHTML allows deprecated style elements. **Frameset** XHTML permits the use of frames.

9. In XHTML, what are the effects of the tags: `<hr>`, ``, ``, ``?

hr – horizontal line

ol - starts an ordered list

strong – emphasis text *usually by boldening

img - embeds an image file

10. What are the three kinds of location (target) to which a hyperlink can point in XHTML?

a URL holding a text file or a program

a file or program located in the client's file system

a point in a file indicated by the `<name>` tag

email address - if the browser is linked to a mailer

11. How would I put a line in a web page which looks as follows, with the hyperlink being underlined:

To find this out, jump to Richard Cooper's home page.

`<p>To find this out, jump to Richard Cooper's.home page.</p>`

12. What kind of information can you put in the head section of an html page?

Title used by the browser. Keywords. Time to repeatedly refresh the page.

An indication of which frames are refreshed by links (`<base>`).

A link to the stylesheet.

Also **metadata**(not covered in lecture) descriptive information such as the author, date and so on.

13. How would you create an XHTML form that looks as follows (where the colour can only be one of black, white, blue or green)?

Please input the car you wish to rent:

Make

Model

Colour ▼

```
<form method="get" action="... url ..." >
<p><strong>Please input the car you wished to rent:</strong></p>
<table>
  <tr><td>Make: </td> <td><input id="Make" type = "text" size = "23"/></td>
  <tr><td>Model: </td><td><input id="Model" type = "text" size ="23"/></td>
  <tr><td>Colour: </td>      <td>      <select id = "Colour">
                                <option>Black</option>
                                < option >White</option>
                                < option >Blue</option>
                                < option >Green </option>
                                </ select ></td></tr>
</table>
<p>< input value ="Submit" type="submit"/>
< input value="Clear" type ="reset"/> </p>
</form>
```

14. You have a page of information about each county and each city in Scotland. Show how to provide an introductory page which allows you to access these pages in two ways – one by selecting from an alphabetic list of counties and cities, the other by clicking on a map..

You could create an alphabeticised display of the county and city names, each hyperlinking to a file. This could be done using a table or a list, e.g.:

```
<ul>
  <li> <a href = "Argyll.html"> Argyll </a></li>
  ...
  <li> <a href = "Glasgow.html"> Glasgow</a></li>
</ul>
```

To use the map, you would display the map as an image and associate it with a map entity.:

```

```

Then you must add the map referred to:

```
<map name="ScotMap">
<area shape = "poly" coords = "50, 150, 50, 160, ....." href = "Argyll.html">
  // Argyll is reached by clicking on a complicated area whose corners are listed in the coords
  variable
<area shape = "circle" coords = "200, 200, 5" href = "Glasgow.html">
  // Glasgow is reached by clicking on a circle centred at 200, 200, 5 pixels in radius
</map>
```

You could also get them to discuss which is best – maps if you don't know the names, the list if you don't know the geography.