

Web Page vs Web Site

- ► A web page is a single page viewable using web browser
 - ▶ Should be visually appealing, informative
- ▶ A web site is a set of web pages
 - Same theme
 - Consistent design

Design and HTML

Navigation

- Users have trouble navigating in many web sites
 - ▶ Navigation should be easy three click-rule
 - ▶ Navigation bar on the left is common
 - ▶ Navigation bar on the right is more ergonomic
- Each page should
 - ▶ Tell the user what the page is about
 - Clearly identify how to get to other pages (Obvious links)
- Familiarity
 Use layout and design that people are familiar with

Links

- ▶ Don't make the user guess where the links are
 - ▶ All links should be clearly identified
- Underlining
 - ▶ Do not underline any normal text.
- ▶ Remember that links are different colour to normal text
 - ▶ Check the appearance of links on your background
- Name of the link should indicate where it links to
 - Don't use "Click here"

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Text

- Make the text easy to read
 - ▶ Keep text short reading on screen is 15% slower than
 - ▶ Bullet points, headings, empty space
 - Use a word processor to prepare the text (spelling)
- Use good titles for page
 - Sensible headings
- ► Make the text legible
 - ► Font size (not too small to read, not too large)
 - ▶ Aligned to the left. Centre only used for headings
 - ▶ Colours / contrast
 - ▶ Not all uppercase / italic / bold

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Images and Backgrounds

- Design for low bandwidth
 - ▶ Use images that have small file sizes
- File Formats
 - ▶ JPEG for photos
 - ▶ GIF / PNG for graphics
- Backgrounds
 - Simple
 - Consistent across the entire site
 - Should not interfere with content

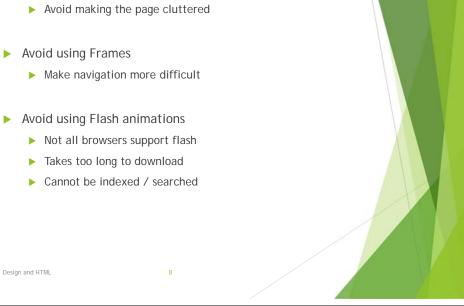
Bad use of colour

- Colour
 - ▶ Use sparingly to reinforce other information
 - ► Colour blindness (Red / Green, Blue / Yellow)
 - Poor use of contrast
 - ▶ Don't over use colour over just because "it is there"

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Things to avoid

- Keep the design simple



HTML

- ► Hypertext Markup Language (HTML)
 - Used to format web pages
 - ▶ Contains hypertext information (links)
 - Written in ASCII / Unicode
 - Embedded format codes (tags)

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Browser Wars

- ► HTML 1.0
 - ► Tim Berners Lee (1993)
- Browsers added extra features
 - ▶ Internet Explorer had unique tags
 - ► Netscape Navigator had unique tags
- Major problem
 - ▶ What tags should a publisher use?
 - ▶ How can this problem be resolved?

http://en.wikipedia.org/wiki/Browser_wars

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Development of HTML

- ► HTML 2.0
 - ▶ Internet Engineering Task Force standard (1995)
- HTML 3.2 / HTML 4.0
 - ▶ W3 Consortium recommendation (1997)
- ► HTML 4.01
 - ▶ W3C recommendation (1999)
- ► XHTML 1.0
 - ▶ W3C recommendation (2000)
- ► HTML5
 - ▶ Fifth revision of HTML standard. Standardized October 2014.

http://en.wikipedia.org/wiki/Html

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Document Type Definition

- ▶ Defines which standard is being used for the page
 - ▶ We use HTML5
- Should appear at the top of the file

<!DOCTYPE html>

Encoding methods

- ▶ Different character sets used to encode the page
 - ASCII
 - ▶ UTF-8
 - Unicode
- Need to tell the browser which encoding is used
 - ▶ Located in the *head* of the document.

<meta charset="UTF-8">

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HTML Source Code

- Code used by the browser to display the page
 - ▶ White space is ignored
- Comments
 - ▶ Ignored by the browser
 - ► Allow you to document your code
 - <!-- Put your comment here -->
- Layout
 - ▶ Use tidy layout where possible
 - Make code easy to understand
 - ▶ Make code easy to maintain/ modify
 - Use whitespace and comments to help

Use at the start of every file

- ▶ Copy and paste the code exactly as it appears
 - ▶ Will be provided in tests and exams

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
</head>
```

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Overview of tags

- Markup achieved with "tags"
 - ► Enclosed with angle brackets < ... >
 - Use lower case
 - ► Most come in pairs <tag> ... </tag>
- Tag usually applies to text between start and end tag

This word is in italics

Attributes

- ▶ Some tags require additional information
 - Properties or attributes of the tag
 - <tag property="value"> </tag>

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Nested Tags

- ▶ Tags must be correctly nested
 - ▶ Cannot close an open tag until all the open tags that it affects are also closed

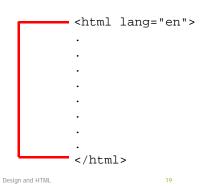
```
<tag>
Text only affected by "tag"
<tag2>
Text affected by both "tag" and "tag2"
Text only affected by "tag"
</tag>
```

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Essential tags

<html lang="en">

- ▶ Encloses the entire document
- ▶ Specifies that the document uses html
- ▶ lang attribute is used to specify the primary language of a webpage - en is the code for English



Essential tags

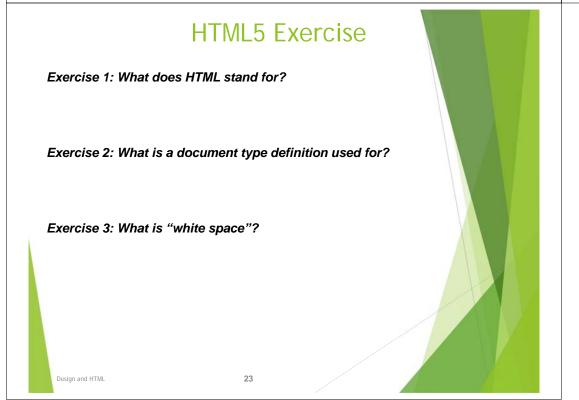
<head>

- Contains information for the browser
 - ▶ E.g. character encoding used
- ▶ Does not contain any content to be displayed on the

```
page
<html lang="en">
   <head>
   <meta charset="UTF-8">
   </head>
   </html>
```

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Essential tags <title> Part of the head Specifies the title to be used by the browser Name of the window Used in navigation (bookmarks, history, etc.) <html lang="en"> <head> <meta charset="UTF-8"> <title>Introduction to tags</title> </head> <body> </head> <body> </html> <pr



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