

<HTML>

TrainingDragon HTML course

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We can divide a website in 3 layers:



(X)HTML => CONTENT

CSS => PRESENTATION

JS => BEHAVIOUR

HTML stands for

Hyper **T**ext **M**arkup **L**anguage

HTML is a language used to create web documents, also called web pages.

HYPERTEXT refers to the possibility to include not only text, but also hyperlinks, pictures etc...

What else can you find in a web page?

-
-
-
-
-
-

A **MARKUP** language is made of **TAGS**

- TAGS wrap and describe pieces of content
- TAGS are represented by tagnames in angle brackets
- TAGS are described by attributes

```
<tag attr=`value`>content</tag>
```

Regular tags

`<openingtag>content</closingtag>`

OR

Self closing tags

`<tag attr=`value` attr=`value` />`

Three main TAGS in every web doc:

- **HTML**

Wraps the whole content of the page

- **HEAD**

Provides info about the page

- **BODY**

Contains what the user will see in the browser

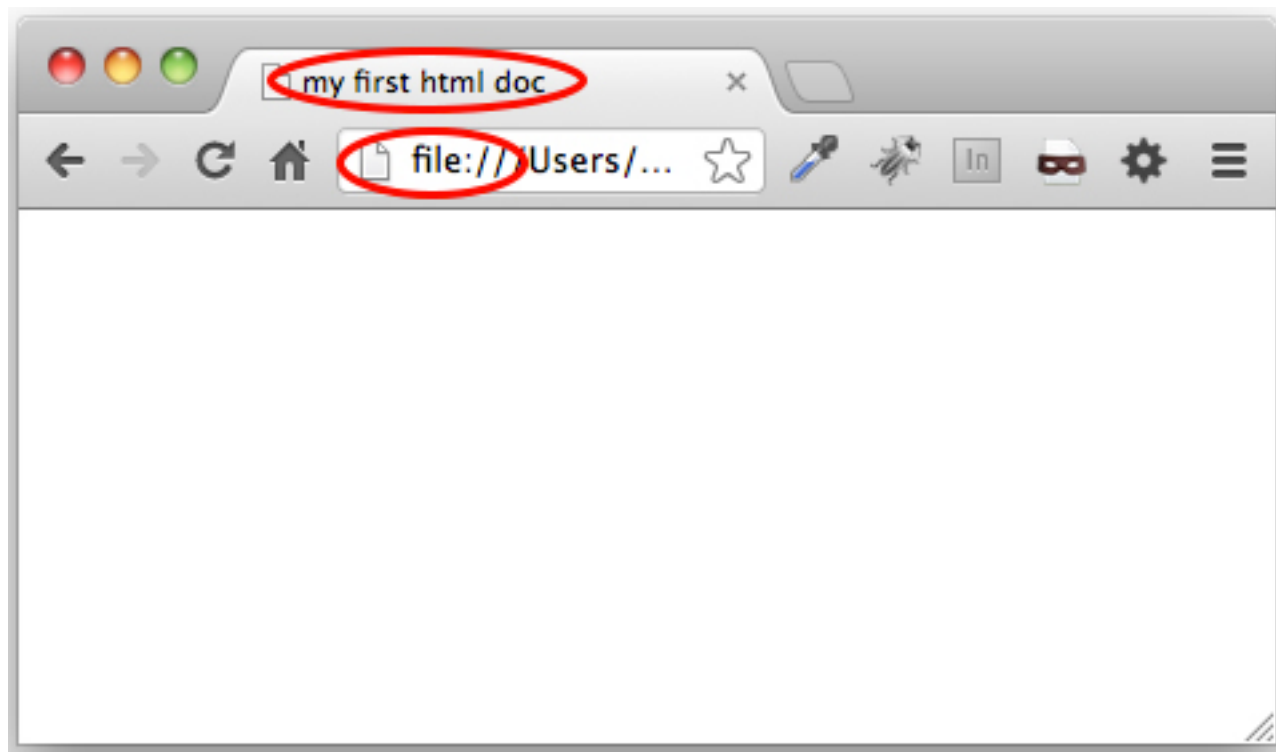

```
1 <html>
2     <head>
3     </head>
4
5     <body>
6     </body>
7 </html>
```

WRITE TAGS IN LOWERCASE AND USE INDENTATION

THE **TITLE** TAG GIVES A NAME TO THE PAGE:

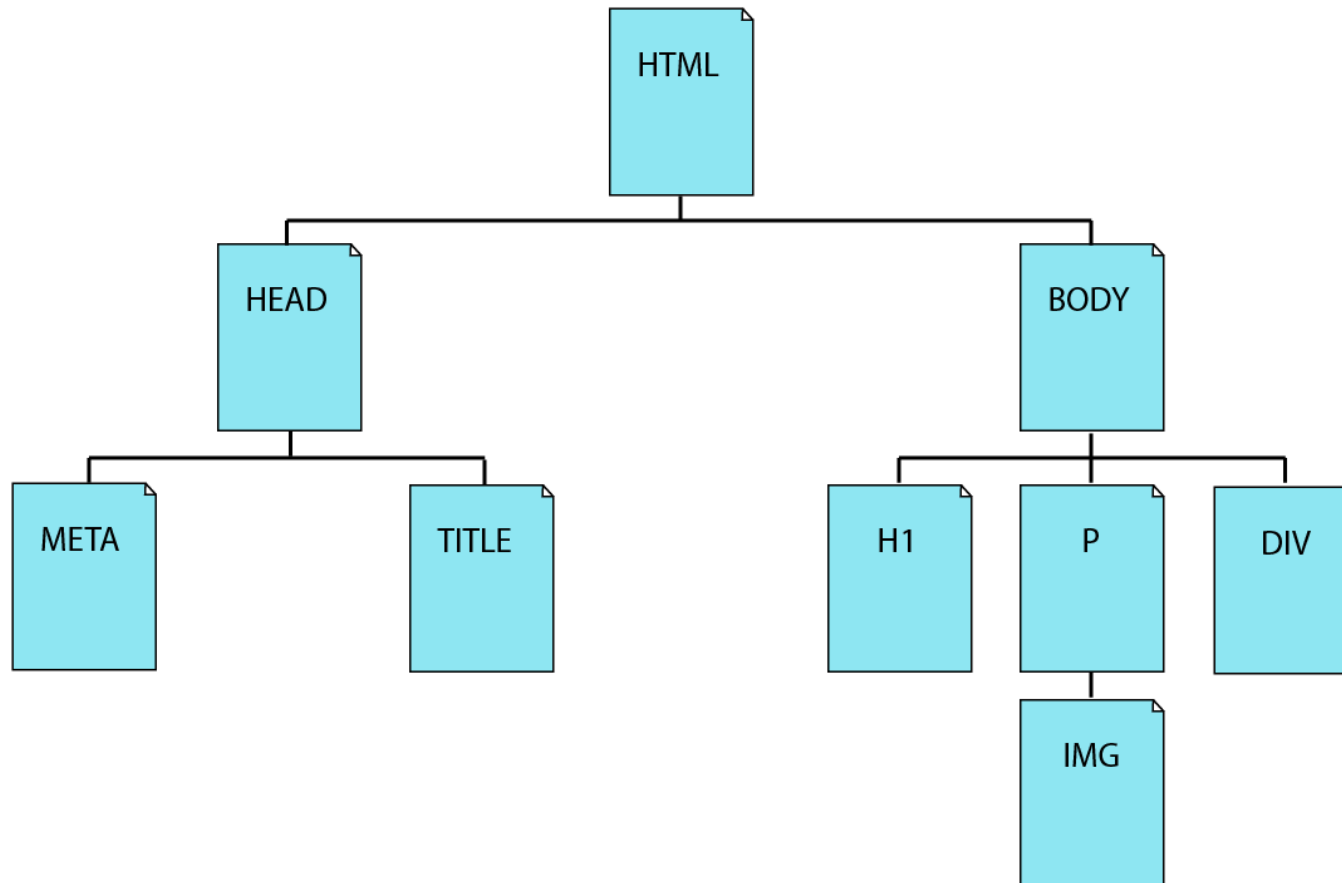
```
1 <html>
2     <head>
3         <title>my first html doc</title>
4     </head>
5
6     <body>
7     </body>
8 </html>
```

YOU'LL SEE THE CONTENT OF THE TITLE TAG IN THE BROWSER TAB



1. the content of the title tag is displayed on the browser tab
2. the URL shows a **file://** protocol: the file is not online but it is local in your machine

HTML PAGES ARE REPRESENTED AS **FAMILY TREE** **DIAGRAMS**



(X)HTML PAGE CREATED WITH A WEB EDITOR:

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//
  . EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
  . transitional.dtd">
2 <html xmlns="http://www.w3.org/1999/xhtml">
3 <head>
4 <meta http-equiv="Content-Type" content="text/html;
  . charset=utf-8" />
5 <title>untitled document</title>
6 </head>
7
8 <body>
9 </body>
10 </html>
```

- THE **DOCTYPE** DECLARATION tells the browser which HTML version you are going to use
- **XHTML** stands for EXTENSIBLE HYPERTEXT MARKUP LANGUAGE, it extends HTML with XML rules
- **META TAGS** provide further information about the page (charset , SEO details etc)

HEADINGS

`<h1>this is h1</h1>`

`<h2>this is h2</h2>`

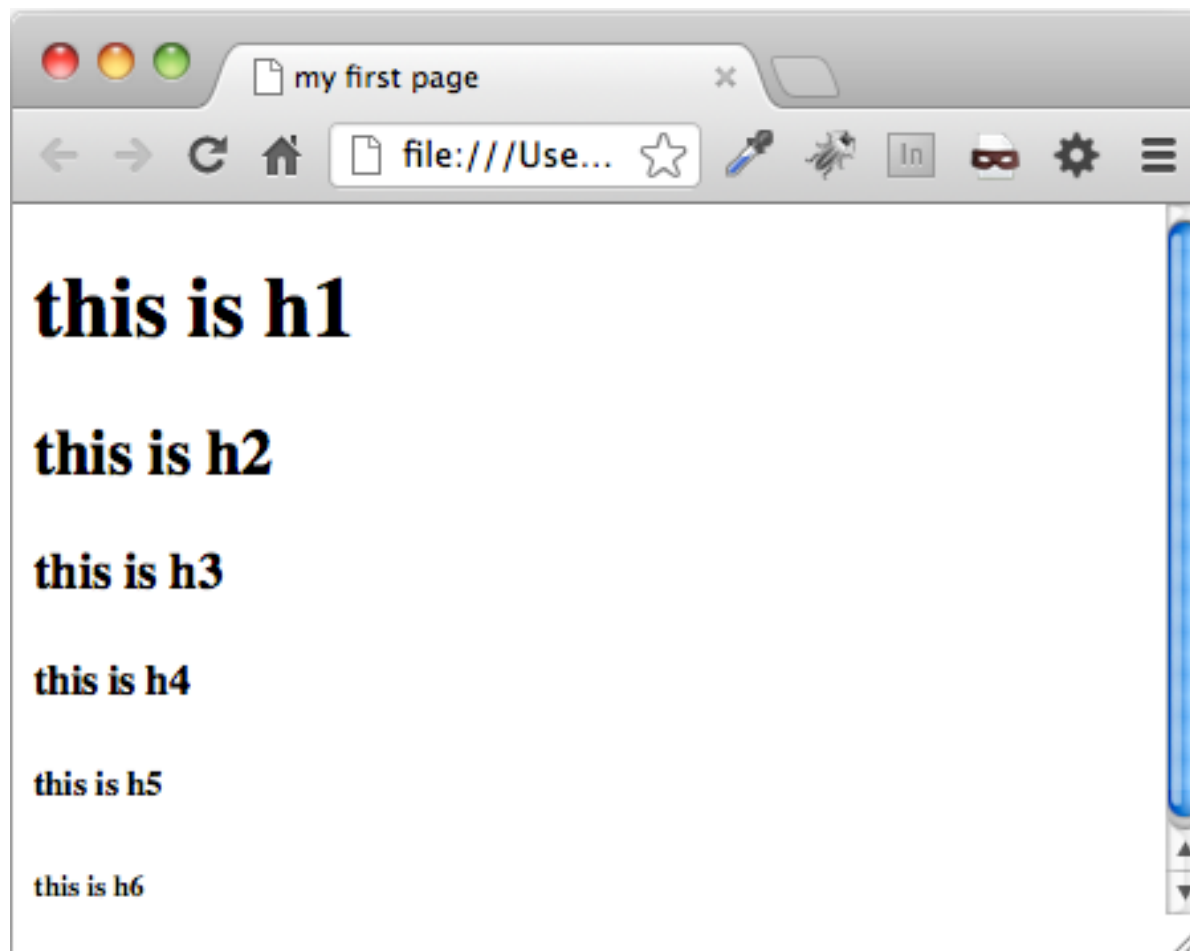
`<h3>this is h3</h3>`

`<h4>this is h4</h4>`

`<h5>this is h5</h5>`

`<h6>this is h6</h6>`

use **HEADINGS** (h1 to h6) to create sections in your content and describe them



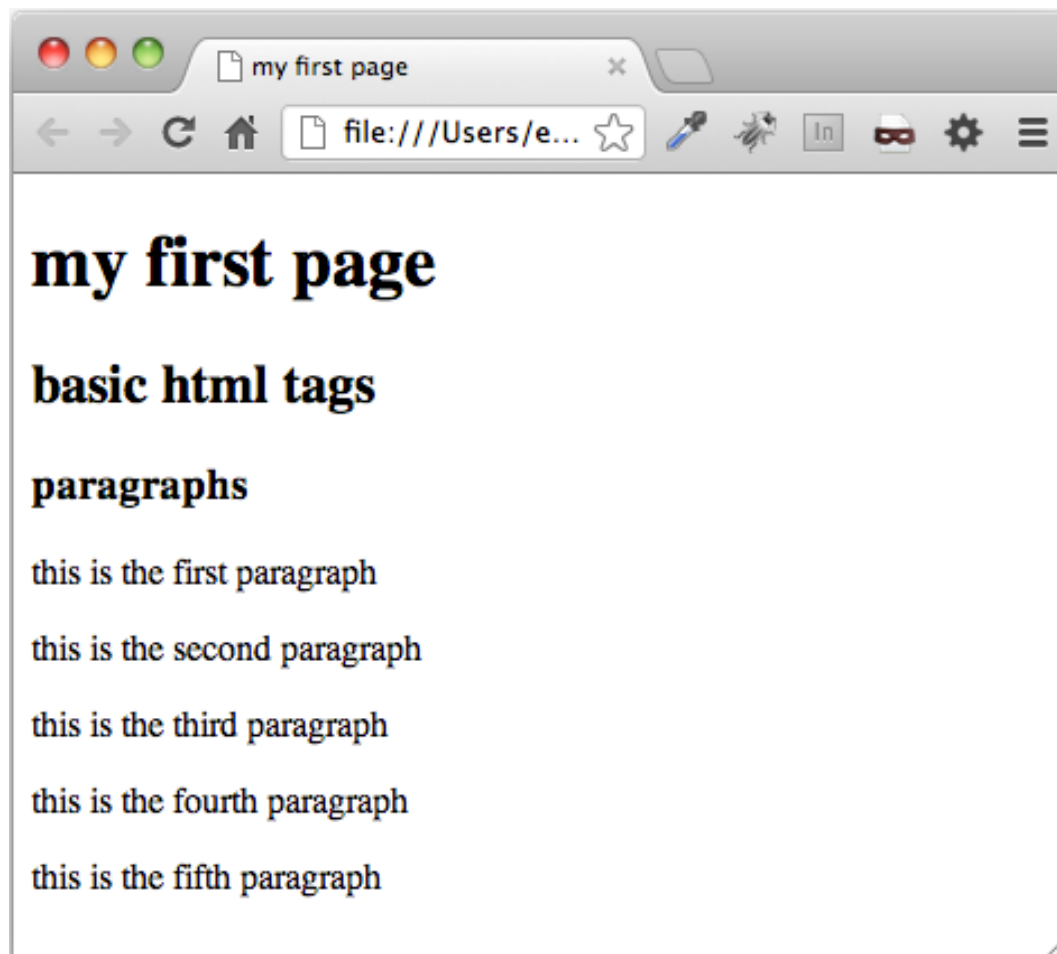
headings are **BLOCK** elements

- **BLOCK** elements interrupt the line and create some empty space (a blank line) after them
- **INLINE** elements do not break the line they're in and do not create any spacing

Use **PARAGRAPHS** to organise your regular content.

```
<p>this is the content</p>
```

- **<p> tags are BLOCK elements**
- **put text, images, links and other content in p tags to avoid strange behaviours and organise the content**



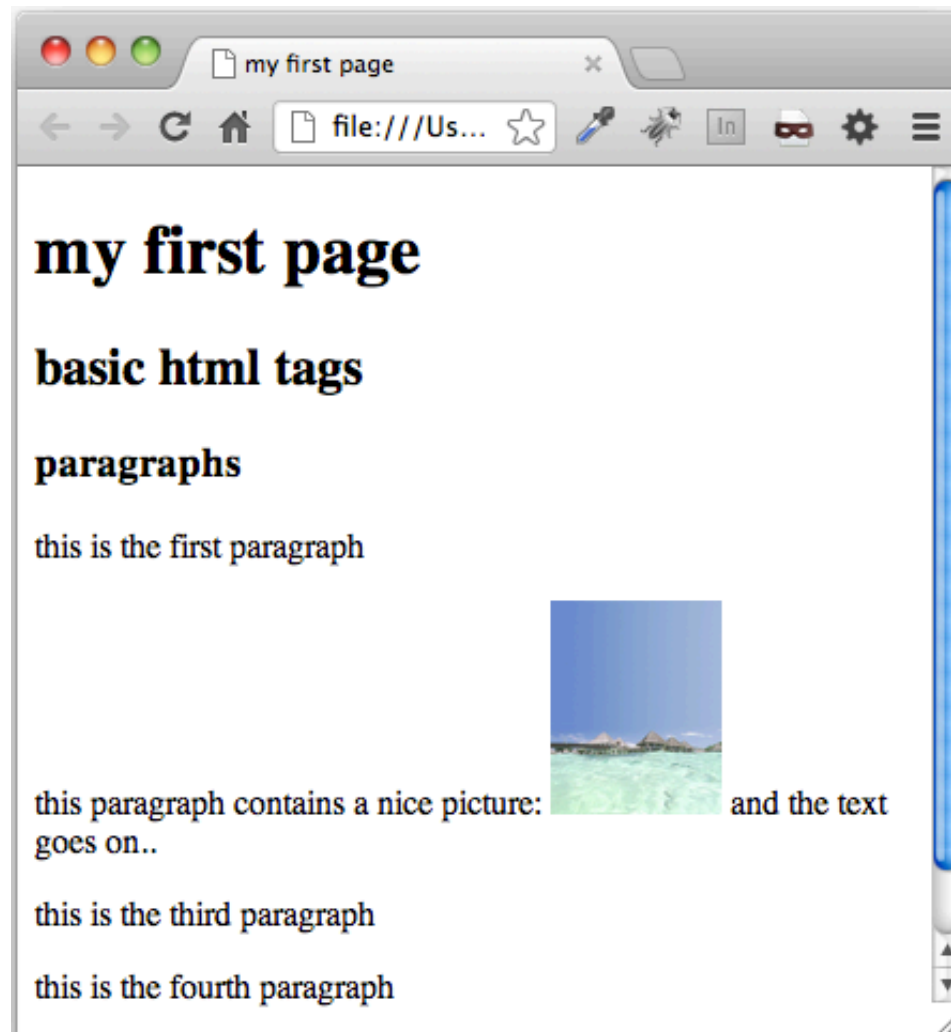
p tags create empty lines just like headings

IMAGES

```
<img src='path/to/file.ext' width='size'  
height='size' alt='this is some  
alternative text' />
```

From the syntax of the **img** tag we can deduce:

- **img** tags are *self-closing* tags (no ``)
- **src**: is the source of the picture we want to display, the file and its location
- **width**: the width of the picture in pixels
- **height**: the height of the picture in pixels
- **alt**: an alternative text to describe the image
- **img** tags are **INLINE** elements



the img remains in the same line

HYPERLINKS

- in HTML they are `<a>` (**anchor**) tags
- a link is a clickable content that will lead you somewhere else:
 - another website
 - another page in the same website
 - another place in the same page
- anchor tags are **INLINE ELEMENTS**

`<a> clickable content `

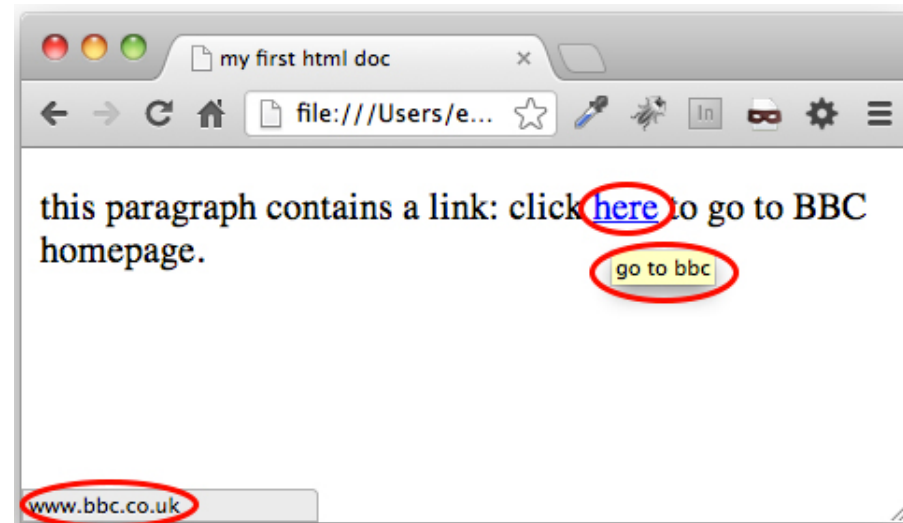
`<p>`

 this paragraph contains a link:
 click

`<a href="http://www.bbc.co.uk"`
 `title="go to bbc">here`

 to go to BBC homepage.

`</p>`



1. LINKS ARE **UNDERLINED** BY DEFAULT
2. TITLE ATTRIBUTES PRODUCE **TOOLTIPS**
3. YOU CAN SEE HREF CONTENT IN BOTTOM LEFT CORNER

- **YOU CAN USE LINKS TO SEND EMAILS**

```
<a href="mailto:info@mail.com"
title="send an email">write us</a>
```

- **YOU CAN LINK TO ANOTHER PLACE IN THE SAME PAGE (INTERNAL ANCHORS)**

```
<a href="#target" title="go to
target">from here</a>
```

```
<a name="target">to here</a>
```

SOME INLINE **DEPRECATED** TAGS

- ` . . . ` bold text
- `<i> . . . </i>` italic text
- `<u> . . . </u>` underlined text
- `<strike> . . . </strike>` striked text
- `^{. . .}` superscript text
- `_{. . .}` subscript text
- `
` breaking line
- `<hr />` horizontal rule
- `<s> . . . </s>` wrong text
- `<center> . . . </center>` centres text
- ` . . . ` styles text

** and look exactly like and <i>, but they are not deprecated as they are not about presentation only.**

** and are important for SEO as they highlight the importance of their content**

ORDERED LISTS

```
<ol>  
  <li>list item</li>      1.list item  
  <li>list item</li>      2.list item  
  <li>list item</li>      3.list item  
  <li>list item</li>      4.list item  
</ol>
```

ol, ul, li are all BLOCK elements
ordered lists will display numbers

UNORDERED LISTS

```
<ul>  
  <li>list item</li>      .list item  
  <li>list item</li>      .list item  
  <li>list item</li>      .list item  
  <li>list item</li>      .list item  
</ul>
```

unordered lists will display bullets

YOU CAN USE UNORDERED LISTS AND LINKS TO CREATE A NAVIGATION

```
<ul>
  <li>
    <a href="pg1.html">page1</a>
  </li>
  <li>
    <a href="pg2.html">page2</a>
  </li>
</ul>
```

DIVs VS SPANs

DIVs ARE BLOCK CONTAINERS

Use DIVs to divide big sections of your content and to group elements (eg: headings and paragraphs)

SPANs ARE INLINE CONTAINERS

Use SPANs to select some inline content (eg: a single word in a paragraph)

FORMS

- **FORMS** ARE INTERFACES THAT ALLOW USERS TO PROVIDE INFORMATION, SELECT OPTIONS, WRITE MESSAGES, COMMENTS ETC..
- HTML IS **STATUSLESS**, IT CANNOT HANDLE, REMEMBER OR PROCESS INFORMATION
- TO HANDLE INFORMATION YOU NEED TO SEND FORM DATA TO A **SERVER SIDE SCRIPT** (EG PHP)

- **FIELDSETS ARE BLOCK ELEMENTS YOU CAN USE TO SPLIT YOUR FORM INTO SECTIONS**
- **LEGENDS ARE INLINE DESCRIPTIONS OF FIELDSETS**

tell us

about you

```
<form>  
  <fieldset>  
    <legend>about you</legend>  
  </fieldset>
```

USE **INPUT** FIELDS TO COLLECT DATA

- USE **LABELS** TO DESCRIBE INPUTS
- THERE ARE MANY TYPES OF INPUTS:
 - **TEXT** => regular input field
 - **PASSWORD** => displays bullets
 - **RADIO** => exclusive choice
 - **CHECKBOX** => multiple choice
 - **FILE** => upload files
 - **HIDDEN** => sends data without showing it

OTHER WAYS TO COLLECT DATA

- **SELECT / OPTIONS** => drop down list menus
- **TEXTAREA** => used for longer texts

BUTTONS

- **SUBMIT** => submits the form
- **RESET** => clears the form
- **INPUT** type='button' => general empty button

about you

please insert your name:

please insert your password:

please select your age group:

☐ 20 - 30

☐ 30 - 40

☐ 40 - 50

☐ 50+

please select your hobbies:

☐ surfing

☐ driving

☐ chess

☐ music

☐ football

please upload your avatar

Browse...

about us

how did you know about us?

write us

Click [here](#) to send us an email.

please type here your message

type here your message...

action

clear the form

send

click here to do nothing

TABLES

- FOR LONG TIME TABLES HAVE BEEN USED TO CREATE LAYOUTS (NOW DEPRECATED – USE CSS)
- EASY TO CREATE
- DIFFICULT TO MAINTAIN

TABLE TAGS:

- **TABLE** => the table itself
- **TR** => TABLE ROW => one row
- **TH** => TABLE HEADING => heading cell
- **TD** => TABLE DATA => regular cell
- **THEAD** => TABLE HEADER
- **TBODY** => TABLE BODY
- **TCAPTION** => TABLE CAPTION
- **TFOOT** => TABLE FOOTER
- **COLGROUP** => GROUP OF COLUMNS

TABLE ATTRIBUTES:

- **BORDER** => border size
- **ALIGN** => horizontal alignment
- **BGCOLOR** => background colour
- **CELLPADDING** => space between cell border and content
- **CELLSPACING** => space between cells
- **COLSPAN** => merge columns
- **ROWSPAN** => merge rows

METATAGS

```
<meta name="..." content="..." />
```

- **AUTHOR** => defines the author
- **DESCRIPTION** => short description of the page
- **KEYWORDS** => comma separated list of words
users should use to look for your website
- **ROBOTS** => defines SEO robots behaviour