Web design and development I (DW1 / CW1)

Class 01 : html language

Web site building needs : html, CSSand JavaScipt.

Html : *Hypertext markup language*

Tags used to structure, position and style content.

Use of txt editor (or programming editor)

Create an html file (index.html)

The tags

Two types of tag :

Orphans : <tag />
Pour signifier un changement à un point précis

Pairs : <tag> </tag>
The opening tag starts the changes and the ending one ends it.

html pages structure

<html>	Indicates the coding language to be used
<head>	Starts the heading section
<title> </title>	Creates the page's title
</head>	Ends the heading section
<body>	Starts the body of the page
</body>	Ends the body of the page
</html>	Ends the use of html language

Titles

<h1> </h1> à <h6> </h6>

Creates hiercharchy with titles

Line break

Paragraph

<p>

Used for all regular texts

Horizontal ruler

<hr />

Caracter styles

** **	Bold
** **	Italic
<u> </u>	Underlined
****	Superscript
****	subscript

Tags' attributes (CSS now mostly used instead)

<body>
- bgcolor
- background (will be covered later)
- text
- link
- vlink
- alink

<p>
- align (left, right, center, justify)

<hr />
- align (left, right, center)
- size
- width
- noshade

<font> (Not used anymore)
- color
- size
- face

Images

Formats supported:

- jpg / jpeg
- gif
- png
- svg

Background image (body/background)

<img />

- src
- width
- height
- border
- alt
- align

Hyperlink

<a />

- href
  - External links
  - Internal links
  - Path to file
- target
- Hyperlinking images

Background images

<body **background="** **">**

- Background images repeat itselves
- Creating patterns
- Creating gradients width photoshop

Exercice 01

Create a simple resume page in html

Class 02 : Cascading stylesheets (CSS)

CSS in html tags

3 ways of including CSS: tags, head section, external file

Why use CSS: flexibility, html page simplification

CSS declaration :
property: value;

CSS in html tags

<tag **style="proerpty: value;**">s

Exemple :
Tu specify text size in a paragraph :
<p **style="font-size: 16px;**">Some text</p>

Possible measure units:
px, pt, mm, cm, in, %...

CSS in <head> section

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
font-size: 16px;
}
</style>
</head>
<body>

</body>
</html>
```

CSS in an external file

Create a text file and save it with css extension :

Link the css file to the html document:

Using **<link>** tag and **href** attribute to specify the css file to be used:

Example :

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="style.css">
</head>
<body>

</body>
</html>
```

Styling text with css (basis)

Chosing a typeface :
font-family: arial,helvetica;

Font size :
font-size: 10px;
(px, pt, em, %, mm, cm, in, etc.)

Font color :
color: red;
(couleur, code hexadécimal, etc.)

Font style :
font-style: normal;
(normal, italic, oblique, etc)

Bold :
font-weight: normal;
(normal, bold, bolder, lighter, etc.)

Line-height :
line-height: 13px;

Alignement :
text-align: center;
(left, right, center, justify, etc.)

The container concept

In css, tags coming in pairs are considered as containers, boxes.

Some container's properties :

Background color
Background images
Height and width
Internal and external margins

padding et margin may have an *auto* value.

Neutral tag
Used as multilines container (like p tag)
Default display : block

Other displays: inline / inline block (to be covered later)

Neutral tag
Used as single line container (like b tag)
Default display : inline

«float» property

Allow block containers to be placed side by side (to be covered later)
Possible values : **none, left, right, ...**

«clear» property

clear: left;
left, right, both

Exercice 02

Improved the resume page produced in exercice 01 using CSS

Class 03 : « class » and « id »

Allow to apply many property to the tag it is used in.

Classes

Tag's attribute: class="yourclass"

```
.yourclass{
    propertie: value;
    propertie: value;
}
```

Id

Tags attribute : id="yourid"

```
#yourid{
    propertie: value;
    propertie: value;
 }
```

Difference between class and id (none, really, except...)

id :

- Can be used once per page only
- Useful when using JavaScript
- Allows internal navigation (one-pager)

Positioning with CSS

Type of positionning :

- position: static
- position: relative
    - top, left, right, bottom
- position: absolute
    - top, left, right, bottom
    - within the browser's window
    - within another container
- position: fixed
    - top, left, right, bottom

RollOver

Pseudo-class « :hover »

- On <a>
- On other classes
- Examples

Exclusive classes

selector.class{ }

Exercice 03

Adapt you resume using CSS in order to create a 3 pages web site with navigation: Home, Studies, Experience

Class 04 : tables

Not very much used anymore

Used before as page layout grids

Architecture and main tags

<table>

<tr>

<td>

Tags attributes :

- border
- width / height
- cellpadding / cellspacing
- bgcolor
- background
- align
- valign
- rowspan
- colspan

Les CSS table's borders

Borders

- border-style
  (dotted, dashed, solid, double, groove, ridge, inset, outset, none, hidden)

- border-width
  (px, in, mm, em, etc.)

- border-color
  (nom, hexa, rvb)

- border-radius

Individual borders

- shortcut : top, right, bottom, left

Ajusting tables with CSS

table-layout
- auto
- fixed

width / height

border-collapse: collapse
- html borders are transformed in lines

padding

text-align
- left
- right
- center
- justify

vertical-align
- top
- middle
- bottom

:nth-child()
- Alterned background color
- even
- uneven
- Numeral value

Class 05 : Revision

Class 06 : Intra exam

Class 07 : html5

Difference between: html4 / html strict / html5

Mandatory declarations

```
<!DOCTYPE html>
<html lang="fr">
<meta charset="UTF-8">
```

New structural tags

```
<header> / <footer>
<nav>
<main>
<article> / <section>
<aside>
```

Browsers' compatibility issues : Intro to resets (to be covered later)

```
header, section, footer, aside, nav, main, article, figure {
display: block;
}
```

<meta>

```
<meta name="description" content="My page">
<meta name="keywords" content="web,design">
<meta name="author" content="John Doe">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

Script for MS explorer prior to version 9

```
<!--[if lt IE 9]>
<script src="//html5shim.googlecode.com/svn/trunk/html5.js"></script>
<![endif]-->
```

Sémantic style tags

```
<b> / <strong>
<i> / <em> / <cite>
```

Exercice 04 (en classe)

Produce a page grid similar to the one shown in course handout #7

Class 08 : lists

Unordered lists

 /

type=""
Bullets: disc, circle, square

Nested lists

Ordered lists

type=""
1, a, A, i, I

start=""

Definition lists

```
<dl>
<dt>Term to be defined</dt>
<dd>Term's definition</dd>
</dl>
```

Horizontal navigational lists

```
<ul>
<li><a href="#">Item 1</a></li>
<li><a href="#">Item 2</a></li>
<li><a href="#">Item plus long</a></li>
</ul>
```

```
ul {
        padding: 0;
        margin: 0;
        list-style-type: none;
}
li {
        margin-left: 2px;
        float: left; /*pour IE*/
}
ul li a {
        display: block;
        float: left;
        width: 100px;
        background-color: lightblue;
        color: black
        text-decoration: none;
        text-align: center;
        padding: 5px;
        border: 2px solid;
}
ul li a:hover {
        background-color: blue;
}
```

Essential selectors

#

To be used with **id=""**

. (dot)

to be used with **class=""**

Element(s) selector

p {}
p,b {}

Child selector

p i {}

Selects all <i> elements inside <p> elements

*

Selects all elements

Hyperlink state's pseudo-class

a:link {color: blue;}
a:visited {color: purple;}
a:active {color: red;}

First child selector

div + p {color: red;}

Selects the first element occurrence placed right after a given parent

Direct child selector

div > p {color: red;}

Selects all occurrence of and element within a given parent

Elements combinator

Selects all occurrences of an element placed in a given parent.

.into ~ p {color: red;}

Attribute's selector

Selects elements using a specific attribute : a[target] {color: red;}

Selects elements using specific attribute and value : a[href="http://www.collegecdi.ca"] {color: red;}

Selects all url using a specific word : a[href*="cdi"] {color: red;}

Selects urls starting with http : a[href^="http"] {color: red;}

Selects urls ending with jpg : a[href$="jpg"] {color: red;}

Excludes elements from the selection: div:not(.intro) {color: red;}

Pseudo-elements

::fisrt-letter

::first-line

::before / ::after
To place an image before or after an element

::selection
To apply style to content selected by the users

Slice and code a Photoshop Interface

How to slice

How to save the interface's fragments

Exercice 5 : Yo-gars

Explain the final project to be handled on class 11.

Class 09 : forms

Fields
Labels
Values

Form's declaration

<form method="post" action="..." name="..."> </form>

Method = post / get

Action

Form's structure

<fieldset>

<legend>

<label>

Form's fields

<input type="text" />

<textarea> </textarea>

<input type="radio" />

<input type="checkbox" />

<select> </select>

<button> </button>

```
<form method="post" action="mail.php">
<fieldset>
<legend>Informations</legend>
<label for="nom">Names:</label>
<input type="text" name="name" id="name" />
<label for="address">Address:</label>
<textarea name="address" id="address" rows="5"
cols="50" placeholder="You can write something here"></
textarea>
</fieldset>
</form>
```

```
<form method="post" action="mail.php">
<fieldset>
<legend>Informations</legend>
<label for="gender">Gender:</label>
<input type="radio" name="gender" id="man" value="man">
<label for="woman">Woman</label>
<input type="radio" name="gender" id="woman" value="
woman"><br>

<label for="hobbies">Hobbies:</label>
<input type="checkbox" name="hobbies" id="sports" value="
sports">Sports<br />
<input type="checkbox" name="hobbies" id="reading"
value="reading">Reading<br />
<input type="checkbox" name="hobbies" id="computers"
value="computers">Computers<br />

<select>
<option value="usa">United States</option>
<option value="germany">Deutschland</option>
<option value="france">France</option>
<option value="others">Others</option>
</select>
</fieldset>

<button type="submit">Click here to send</button>

</form>
```

Class 10 : Révision

Class 11 : final exam