



Lecture 03

DIV + CSS

United, Clear, and Simple

Web Arts #3 - CSS
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Document Type 文档类型

- When creating an HTML Document in Dreamweaver, we will find the following statement added automatically:
- `<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd" >`
- It tells the browsers the type of the document in order to avoid some compatible problems.
- 这句话标明本文档是过渡类型，另外还有框架和严格类型，目前一般都采用过渡类型，因为浏览器对XHTML的解析比较宽松，允许使用HTML4.01中的标签，但必须符合XHTML的语法。

Encoding 语言编码

- And another statement is as follow:
- `<meta http-equiv="Content-Type" content="text/html; charset=gb2312" />`
- It tells the browsers what language of encoding we use to write the webpage.
- “gb2312” encoding means the document is encoded in Simplified-Chinese, and usually the general encoding in the world is “UTF-8” .
- Make sure the encoding of your css file corresponds.

What is CSS?

- Its full name is “**Cascading Style Sheet**”（层叠样式表）。
- As mentioned, it set up the rules of properties for the elements in the webpage.（规定了网页元素的属性）
- It is organized and easy to read and maintain compared to the way HTML Language adopts.（相对于HTML的控制，它更加有序和容易维护）
- And at the same time, it offers more properties and even methods of the HTML elements.（甚至能控制HTML自己很难控制的东西，例如定义HTML元素的某些方法）

How to include CSS?

- There are already 3 ways you can choose:
- 1. **Inline Styles** (行内样式) : inside the HTML document, style information on a single element, specified using the "style" attribute.
 - `<p style="font-size:18px;" >内部样式</p>`
 - `<table style="font-face:" 微软雅黑" ;">内部样式</table>`
 - Etc.
- It only works on the specific element. (只对标签内元素有效)

How to include CSS?

- There are already 3 ways you can choose:
- 2. **Embedded style** (内部样式) : blocks of CSS information inside the HTML itself
 - `<style>`
 - `h2 { color:#f00;}`
 - `a { color:green; }`
 - `</style>`
- It is like a tag, but it should be put in between `<head>` `</head>`. And it works on all elements of the page. (放在头部 , 整页有效)

How to include CSS?

- There are already 3 ways you can choose:
- 3. **External style sheets** (外部样式) : a separate CSS file referenced from the document
- `<link href="layout.css" rel="stylesheet" type="text/css" />`
- The CSS is in another file, and we include it using the statement above, kind of like the way we do in C and C++. (放在单独文件, 需要时引入)
- This is the usual way we adopt for its convenience to be reused. (可以用于整个网站每个页面, 容易维护)

The Syntax of CSS 语法

- Let' s take the 3rd way as an example, which is also the formal way we use when creating a webpage.
- First of all, a statement should be included:
- `<link href="layout.css" rel="stylesheet" type="text/css" />`
- And let' s create a file called layout.css using any editor you prefer.

The Syntax of CSS 语法

- And let' s talk about **selector**. (选择器 , css和js的能力来源)
- According the syntax of selector, we can select nearly every elements and contents of the page and the combination of them. (通过选择器机制 , 几乎所有的 “东西” 都可以被选中并修改)
- For example, **the HTML elements, the contents, the nth children of a container, the first letter of a paragraph, the elements with specific id or class, the properties of a link when clicked, the neighbors of an element, and the combination of them** etc.
- It is strong. (简而言之 , 很强)

The Syntax of CSS 语法

- So how to use selector? Before that, let's see some basic syntax.
- Usually, the CSS file is going like this:
- [Selector]{
 - Properties1: value1 [value2] [value3] ... ;
 - Properties2: value1 [value2] ... ;
 - /*You comments here.*/
- }
- Combine those blocks, and you get a CSS file.

The Syntax of CSS 语法

- About the [Selector], to choose different elements, we have different ways.
- To choose elements with a specific class, we use `“.classname{”`
- To choose elements with a specific id, we use `“#id{”`
- To choose a specific type of tag, we use `“tagname{”`
- To choose every child of a selector, we use `“[father].child{”`
- To choose the first child of a selector, we use `“[father]>[child]”`
- To choose the Pseudo Class (伪类) of a selector, we use `“[selector]:[status]”`
- To choose the next specific elements, we use `“[selector]+[selector]”`
- To choose the properties of some selector by using a space, we use `“[selector] [property]”`
- To combine some of them, we use a comma, e.g.
- `“#id1 #id2,#id3,#tagname,.classname{”`

The Syntax of CSS 语法

- So what is the Pseudo Classes?
- 伪类 (Pseudo classes) 是选择符的螺栓，用来指定一个或者与其相关的选择符的状态。它们的形式是 `selector:pseudo class { property: value; }`，简单地用一个半角英文冒号 (:) 来隔开选择符和伪类。
- 简单理解，就是绑定了的事件
- Due to the capability of the browsers, only some of them are well supported.

The Syntax of CSS 语法

Some Pseudo Classes Well Supported:

属性	描述	CSS
<u>:active</u>	向被激活的元素添加样式。	1
<u>:focus</u>	向拥有键盘输入焦点的元素添加样式。	2
<u>:hover</u>	当鼠标悬浮在元素上方时，向元素添加样式。	1
<u>:link</u>	向未被访问的链接添加样式。	1
<u>:visited</u>	向已被访问的链接添加样式。	1
<u>:first-child</u>	向元素的第一个子元素添加样式。	2
<u>:lang</u>	向带有指定 lang 属性的元素添加样式。	2

The Syntax of CSS 语法

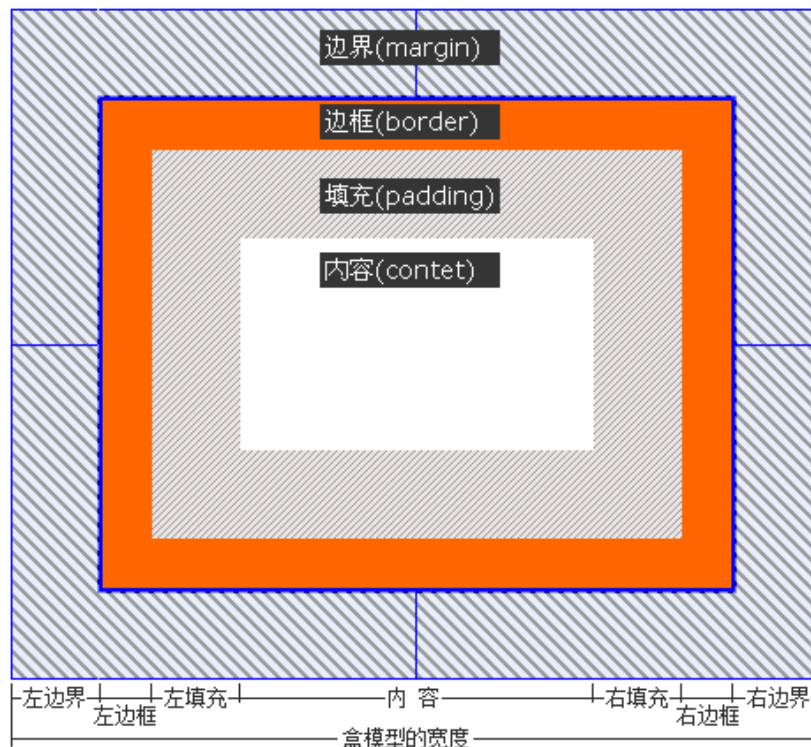
- And next let's talk about the layout, which is the most important part of the CSS usage.

- CSS盒模型

- Concepts:

- Content (内容)
- Padding (填充)
- Border (边框)
- Margin (边界)

- 每个被赋予block属性的元素都满足此模型



The Syntax of CSS 语法

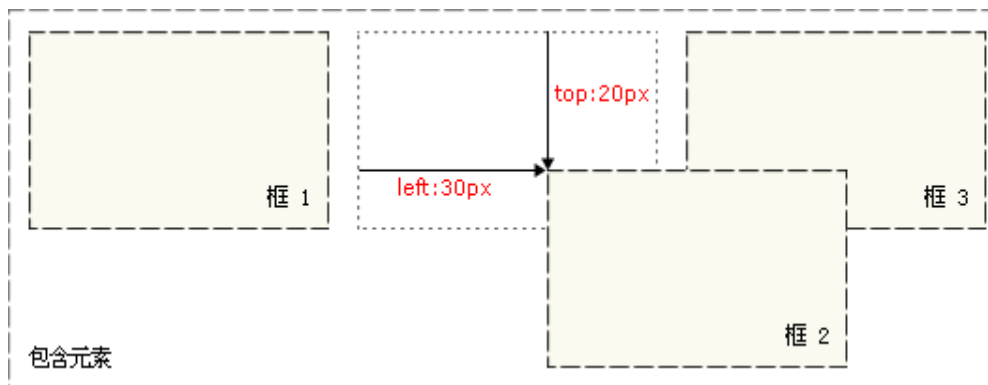
- About the positioning of the elements:
 - **Block Elements 块级元素**
 - div, h1, p 显示为一块内容
 - **Inline Elements 行内元素**
 - strong, span, a 显示为一行
- 简单地，就是有没有换行。
- By setting the property “**display: block/none/inline/etc.**”, you can transform them.

The Syntax of CSS 语法

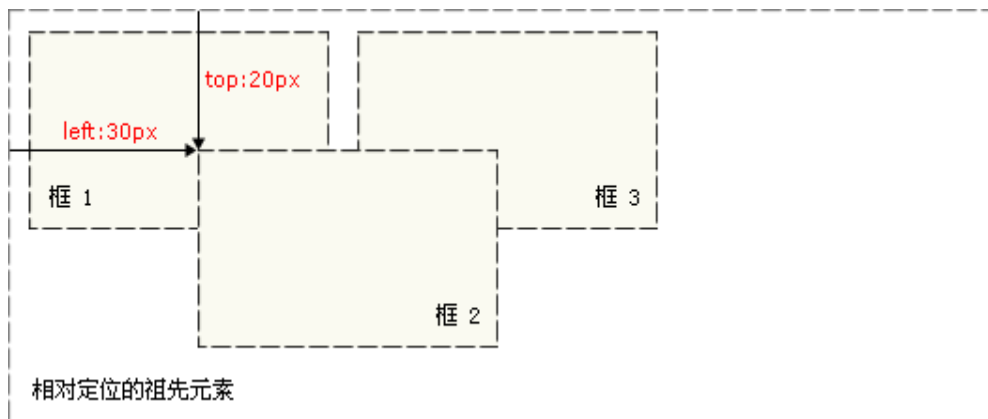
- There are 3 positioning methods in CSS:
- 1. **The Normal Positioning (普通流)**: The default one, usually we don't use this.
- 2. **Relative Positioning (相对定位)**: The reference is the original place it ought to be.
- 3. **Absolute Positioning (绝对定位)**: Usually the nearest positioned parent is the reference.
- Use **"position: absolute/relative"** to specify the positioning

The Syntax of CSS 语法

- Relative Positioning



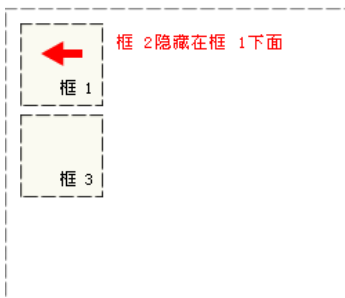
- Absolute Positioning



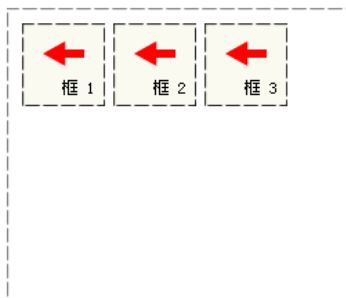
The Syntax of CSS 语法

- And then a simple concept of “Float” (浮动)
- It works like liquid.

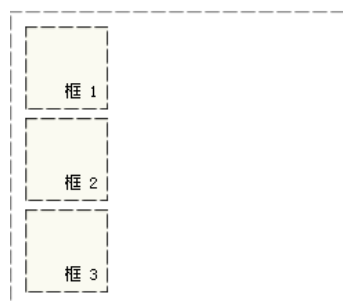
框 1 向左浮动



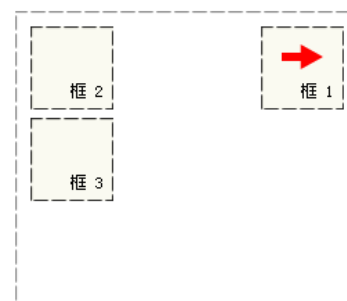
所有三个框向左浮动



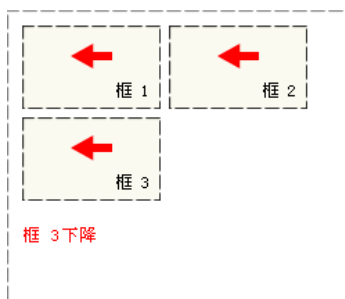
不浮动的框



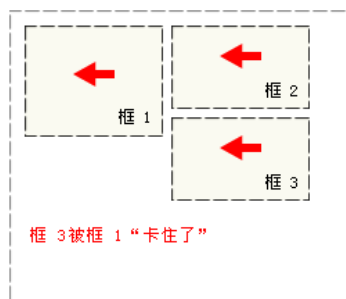
框 1 向右浮动



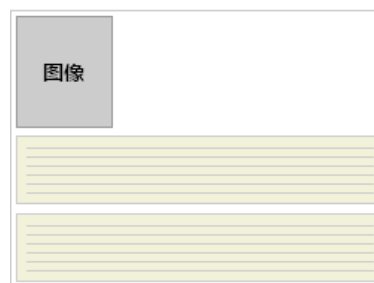
框 1 向左浮动



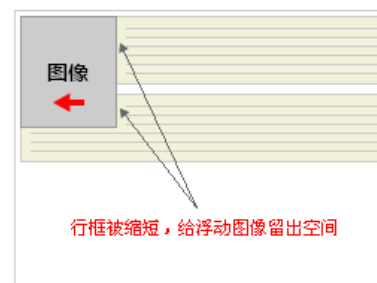
所有三个框向左浮动



不浮动的框

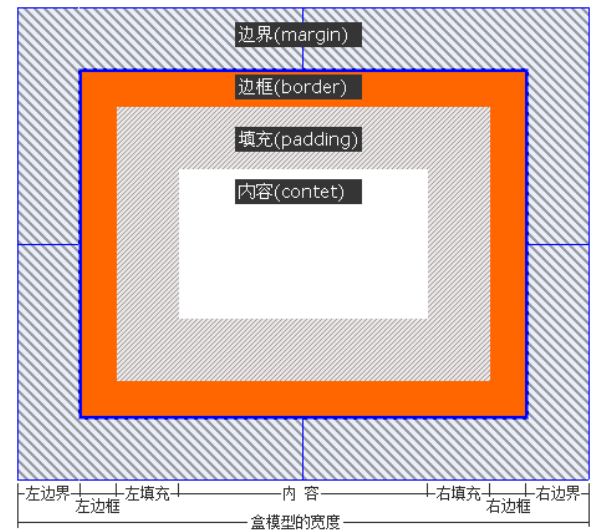


图像向左浮动



The Syntax of CSS 语法

- And about the position details control (细节定位控制) :
- Usually we use:
- `margin: value1 [value2] [value3] [value4]`
- `padding: value1 [value2] [value3] [value4]`



The Syntax of CSS 语法

- And finally let' s introduce some others.
- background-color: url([path])
- background-repeat:repeat/repeat-x/repeat-y/no-repeat/inherit
- background-position:center/top/buttom/right/left/[self-defined]
- etc.

An Example 例子分析

- The [sysuMSTC Web](#) also uses CSS+DIV.



Conclusions 总结

- <http://www.w3school.com.cn>
- AND

◦ Thank you!

& have a nice day...