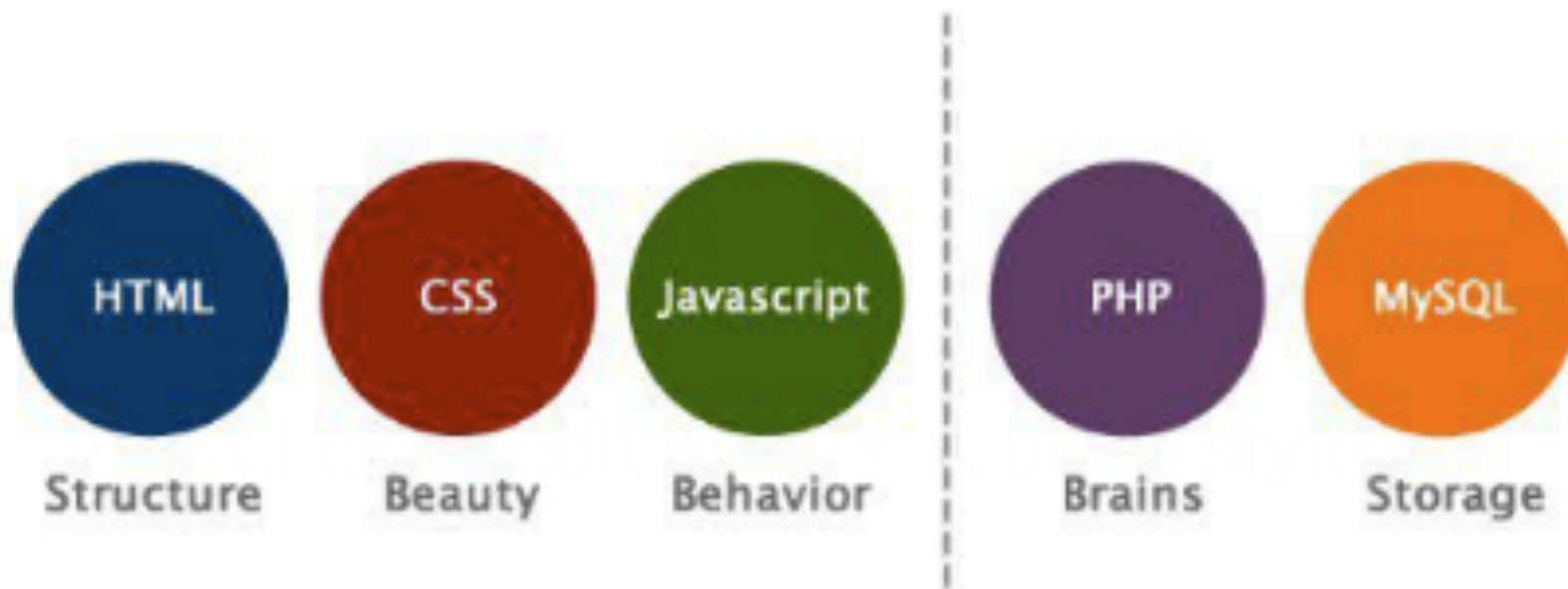


Intro to HTML

Week 03

TCNJ Dynamic web

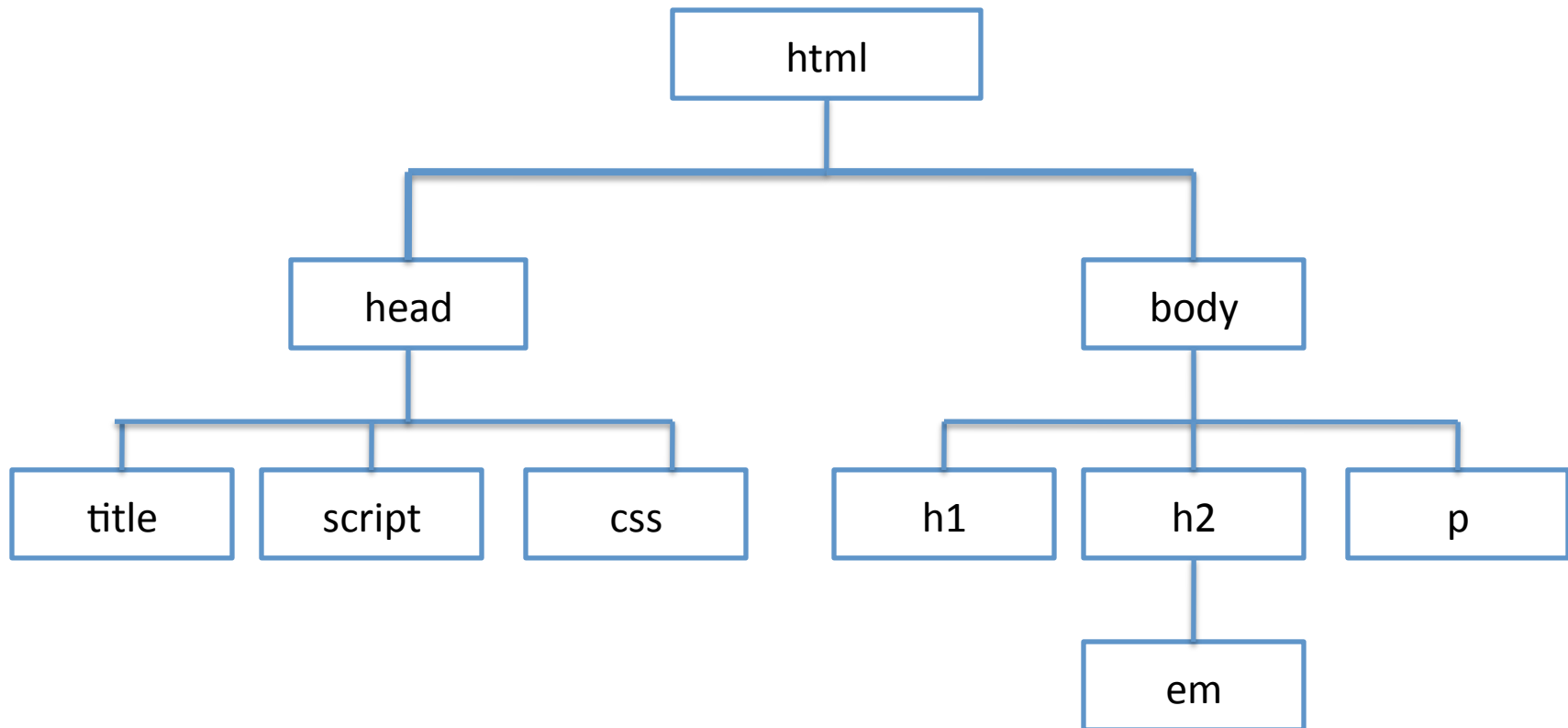
Jean Chu



From John' Social Syllabus of "Design Fundamentals for the Web"
<http://www.socialsyllabus.com/calendar.php?course=1>

How HTML Works

1. Browser loads the document and creates an internal DOM (Document Object Model)



From Head First HTML5 Programming

How HTML Works

2. Just after the page loads JavaScript code begins executing.

Using Javascript...

- * You can interact with your page through the DOM
- * You can react to user or browser-generated events
- * You can make use of all the new APIs.

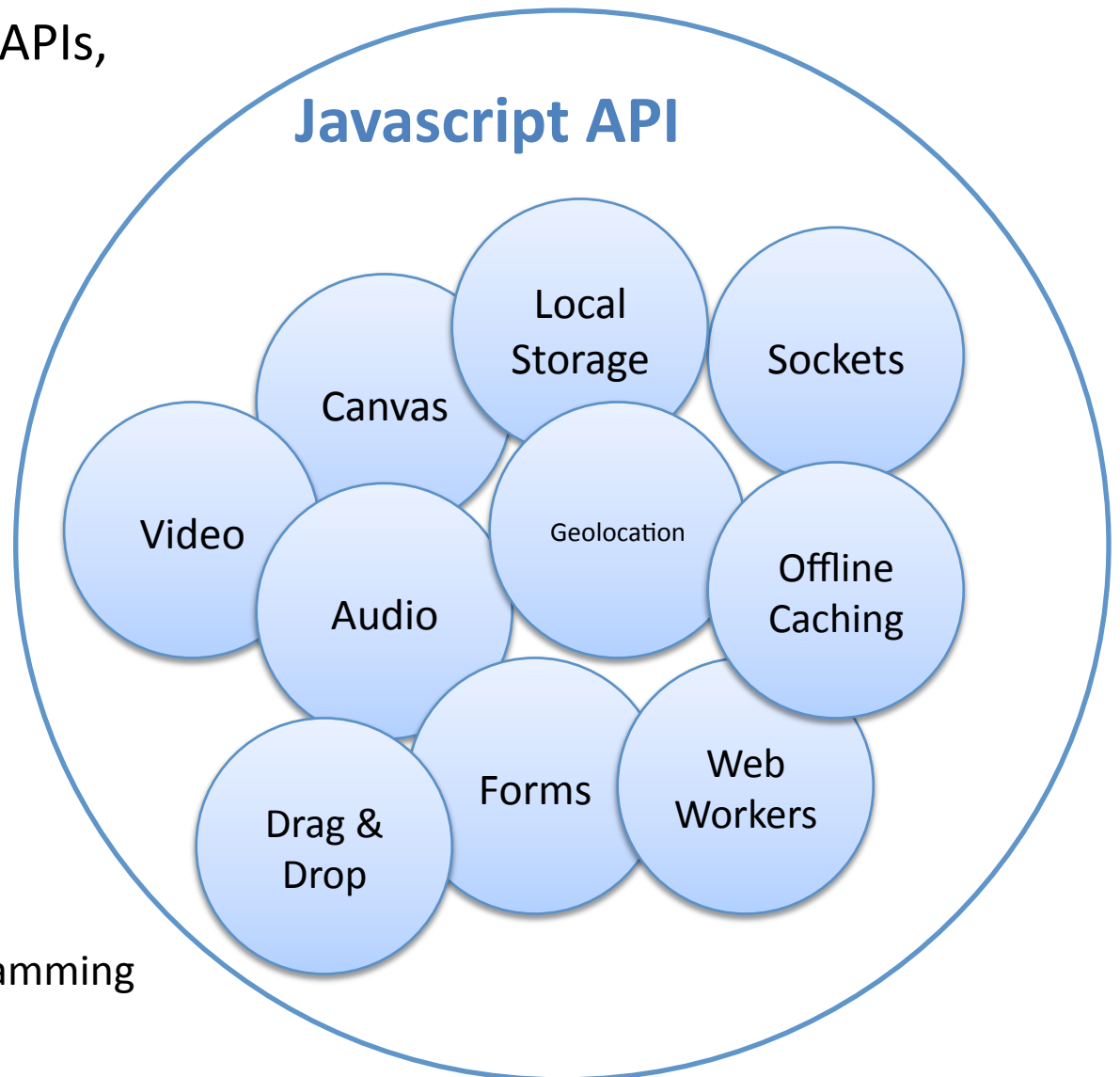
From Head First HTML5 Programming

How HTML 5 Works

* To make use of all these APIs, we need JavaScript.

Application Programming Interfaces, expose a set of objects, methods, and properties that we can use to access all the functionality of these technologies.

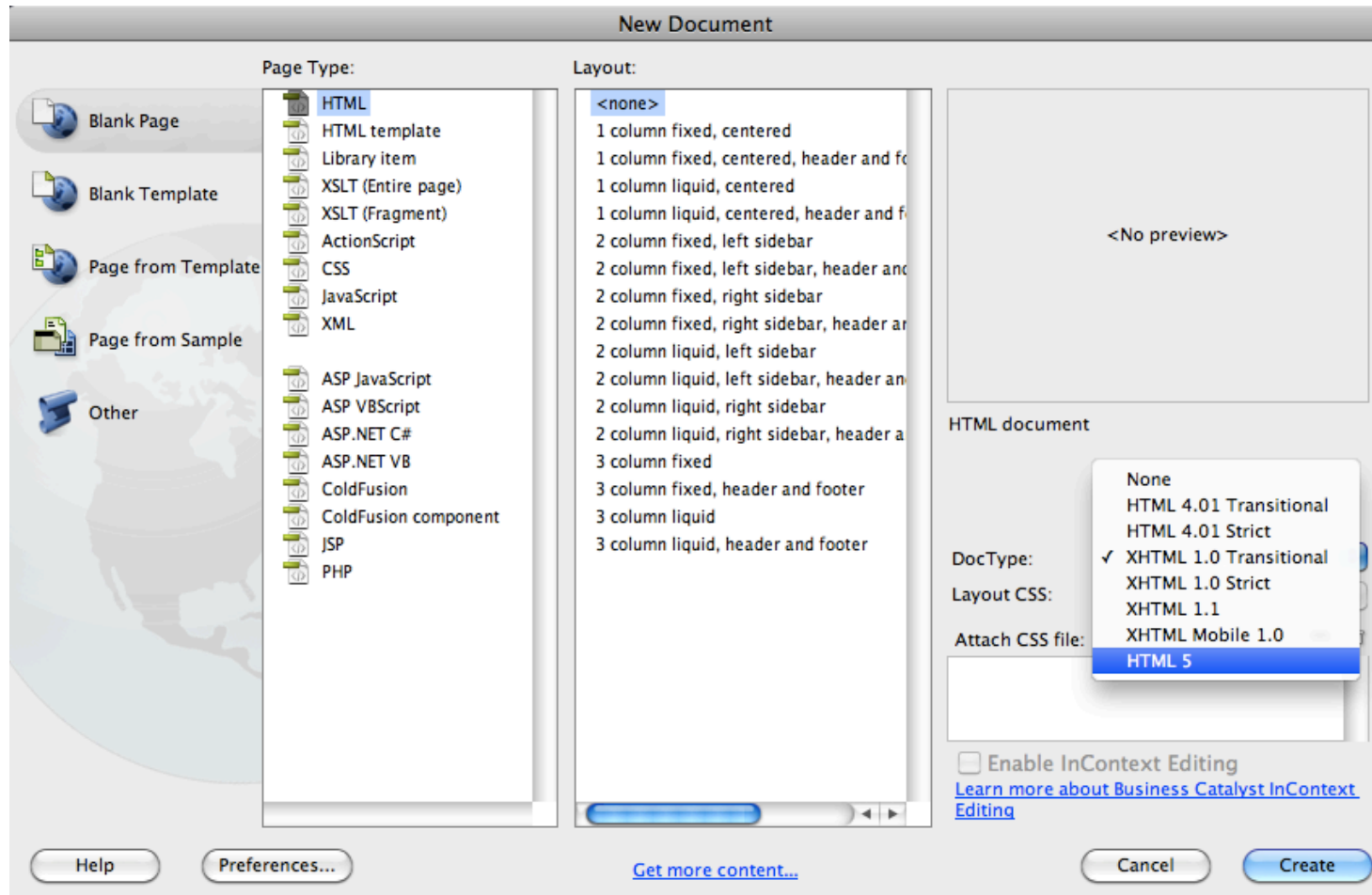
From Head First HTML5 Programming



What is HTML5?

- <http://www.youtube.com/watch?v=mzPxo7Y6JyA>
- <http://slides.html5rocks.com/#landing-slide>

How to make HTML5 document from Dreamweaver



HTML 5 vs HTML

HTML 5

```
<!DOCTYPE HTML>
```

```
<html>
```

HTML

```
<!DOCTYPE html PUBLIC "-//  
W3C//DTD XHTML 1.0  
Transitional//EN" "http://  
www.w3.org/TR/xhtml1/  
DTD/xhtml1-  
transitional.dtd">
```

```
<html xmlns="http://  
www.w3.org/1999/xhtml">
```

HTML

opening `< tag >` and closing `</tag>`

`<html>`

`<head>`

`<title>`

my title !!

`</title>`

`</head>`

`<body>`

`</body>`

`</html>`

Head

Code

```
<head>  
  <title>Hello</title>  
  
  <meta charset=utf-8>  
  
  <style type="text/css">  
  </style>  
  
  <script type="text/javascript">  
  </script>  
  
</head>
```

What Goes to Head?

- Title
- Meta Tag (Metadata within a HTML Document)
- CSS (Cascading Style Sheet)
- Javascript

<meta> Tags

<head>

<meta name="description" content="Free Web tutorials" />

Define keywords for search engines

<meta name="keywords" content="HTML,CSS,XML,JavaScript" />

Define a description of your web page

<meta name="description" content="Free Web tutorials on HTML and CSS" />

Defines the Character Encoding of your web page

<meta http-equiv="content-type" content="text/html;charset=UTF-8" />

</head>

http://www.w3schools.com/tags/tag_meta.asp

HTML Tags

TAGS

- Layout Object `<div> </div>`
- Headings `<h1> </h1> <h2> </h2>`
- Paragraph `<p></p>`
- Lists ` `
- Tables `<table><tr><td></td></tr></table>`
- Links ``
- Line Breaks `
`
- Images ``

- For the tags information and usages, please refer to the link

<http://www.w3schools.com/tags/>

HTML 5 - Canvas

```
<!doctype html>
<html lang="en">
<head>
<title>Look What I Drew</title>
<meta charset="utf-8" /> <style>
canvas { border: 1px solid black; } </style>

<script> window.onload = function() {
var canvas = document.getElementById
("myCanvas");
var context = canvas.getContext("2d");
context.fillRect(10, 10, 100, 100);
}; </script>

</head>

<body>
<canvas width="600" height="200" id="myCanvas">
</canvas>
</body>
</html>
```

Here's our 100 x 100 rectangle,
positioned at 10, 10 in the canvas.



And our canvas, which is 600 wide, 200 high
and has a 1 pixel black border around it.



HTML 5 - Canvas

processing.js uses Canvas Element to Draw

```
<!DOCTYPE html>
<html>
  <head>
    <title>Processing.js Example Page</title>
    <meta charset="UTF-8">
    <script type="text/javascript" src="http://cloud.github.com/downloads/processing-js/
processing-js/processing-1.3.6.min.js"></script>

    <!--
      This is a source-file-less sketch, loaded from inline source code in
      the html header. This only works if the script specifies a data-processing-target
    -->
    <script type="text/processing" data-processing-target="mycanvas">
void setup()
{
  size(200,200);
  background(125);
}

void draw(){
  ellipse(56, 46, 55, 55);
}
</script>
<canvas id="mycanvas"></canvas>
</body>
</html>
```

<http://processingjs.org/>

```
<!DOCTYPE html>
<html>
  <head>
    <title>Processing.js Example Page</title>
    <meta charset="UTF-8">
    <script type="text/javascript" src="http://cloud.github.com/downloads/processing-js/processing-js/
processing-1.3.6.min.js"></script>

    <!--
      This is a source-file-less sketch, loaded from inline source code in
      the html header. This only works if the script specifies a data-processing-target
    -->
    <p><canvas id="canvas1" width="200" height="200"></canvas></p>

    <script id="script1" type="text/javascript">

// Simple way to attach js code to the canvas is by using a function
function sketchProc(processing) {
  // Override draw function, by default it will be called 60 times per second
  processing.draw = function() {

    // erase background
    processing.background(224);
    processing.ellipse(56, 46, 55, 55);
  };
}

var canvas = document.getElementById("canvas1");
// attaching the sketchProc function to the canvas
var p = new Processing(canvas, sketchProc);
// p.exit(); to detach it
</script>
</body>
</html>
```