

# HTML5 Migration

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## Migration from HTML4 to HTML5

This chapter is entirely about how to **migrate** from **HTML4** to **HTML5**.

This chapter demonstrates how to convert an HTML4 page into an HTML5 page, without destroying anything of the original content or structure.

You can migrate from XHTML to HTML5, using the same recipe.

### Typical HTML4    Typical HTML5

<div id="header">	<header>
<div id="menu">	<nav>
<div id="content">	<section>
<div class="article">	<article>
<div id="footer">	<footer>

---

## A Typical HTML4 Page

### Example

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html lang="en">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<title>HTML4</title>
<style>
body {
  font-family: Verdana,sans-serif;
  font-size: 0.9em;
}

div#header, div#footer {
  padding: 10px;
  color: white;
  background-color: black;
}

div#content {
  margin: 5px;
  padding: 10px;
  background-color: lightgrey;
}

div.article {
  margin: 5px;
  padding: 10px;
  background-color: white;
}

div#menu ul {
  padding: 0;
}

div#menu ul li {
  display: inline;
  margin: 5px;
}
```

```
</style>
</head>
<body>

<div id="header">

  <h1>Monday Times</h1>
</div>

<div id="menu">

  <ul>
    <li>News</li>
    <li>Sports</li>
    <li>Weather</li>
  </ul>
</div>

<div id="content">

  <h2>News Section</h2>
  <div class="article">
    <h2>News Article</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>
  </div>
  <div class="article">
    <h2>News Article</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque in porta lorem. Morbi condimentum est nibh, et consectetur tortor feugiat at.</p>
  </div>
</div>

<div id="footer">

  <p>&copy; 2016 Monday Times. All rights reserved.</p>
</div>

</body>

</html>
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```

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## Change to HTML5 Doctype

Change the **doctype**:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
```

to the HTML5 doctype:

---

## Change to HTML5 Encoding

Change the **encoding** information:

```
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
```

to HTML5 encoding:

---

## Add The HTML5Shiv

The new HTML5 semantic elements are supported in all modern browsers. In addition, you can "teach" older browsers how to handle "unknown elements".

However, IE8 and earlier, does not allow styling of unknown elements. So, the HTML5Shiv is a JavaScript workaround to enable styling of HTML5 elements in versions of Internet Explorer prior to version 9.

Add the HTML5Shiv:

Read more about the **HTML5Shiv** in [HTML5 Browser Support](#).

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## Change to HTML5 Semantic Elements

The existing CSS contains id's and classes for styling the elements:

```
body {  
  font-family: Verdana,sans-serif;  
  font-size: 0.9em;  
}
```

```
div#header, div#footer {  
  padding: 10px;  
  color: white;  
  background-color: black;  
}
```

```
div#content {  
  margin: 5px;  
  padding: 10px;  
  background-color: lightgrey;  
}
```

```
div.article {  
  margin: 5px;  
  padding: 10px;  
  background-color: white;  
}
```

```
div#menu ul {  
  padding: 0;  
}
```

```
div#menu ul li {  
  display: inline;  
  margin: 5px;  
}
```

Replace with equal CSS styles for HTML5 semantic elements:

```
body {  
  font-family: Verdana,sans-serif;  
  font-size: 0.9em;  
}
```

```
header, footer {  
  padding: 10px;  
  color: white;  
  background-color: black;  
}
```

```
section {  
  margin: 5px;  
  padding: 10px;  
  background-color: lightgrey;  
}
```

```
article {  
  margin: 5px;  
  padding: 10px;  
  background-color: white;  
}
```

```
nav ul {  
  padding: 0;  
}
```

```
nav ul li {  
  display: inline;  
  margin: 5px;  
}
```

Finally, change the elements to HTML5 semantic elements:

### Example

```
<body>  
  
<header>  
  
  <h1>Monday Times</h1>  
</header>  
  
<nav>  
  
  <ul>  
    <li>News</li>  
    <li>Sports</li>  
    <li>Weather</li>  
  </ul>  
</nav>  
  
<section>  
  
  <h2>News Section</h2>  
  <article>  
    <h2>News Article</h2>  
    <p>Lorem ipsum dolor sit amet..</p>  
  </article>  
  <article>  
    <h2>News Article</h2>  
    <p>Lorem ipsum dolor sit amet..</p>  
  </article>  
</section>  
  
<footer>  
  
  <p>&copy; 2014 Monday Times. All rights reserved.</p>  
</footer>  
  
</body>
```

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## The Difference Between <article> <section> and <div>

There is a confusing (lack of) difference in the HTML5 standard, between <article> <section> and <div>.

In the HTML5 standard, the <section> element is defined as a block of related elements.

The <article> element is defined as a complete, self-contained block of related elements.

The `<div>` element is defined as a block of children elements.

How to interpret that?

In the example above, we have used `<section>` as a container for related `<articles>`.

But, we could have used `<article>` as a container for articles as well.

Here are some different examples:

### **`<article>` in `<article>`:**

```
<article>
```

```
<h2>Famous Cities</h2>
```

```
</article>
```

```
<h2>London</h2>
<p>London is the capital city of England.</p>
</article>
```

```
<article>
```

```
<h2>Paris</h2>
<p>Paris is the capital and most populous city of France.</p>
</article>
```

```
<article>
```

```
<h2>Tokyo</h2>
<p>Tokyo is the capital of Japan.</p>
</article>
```

```
</article>
```

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### **`<div>` in `<article>`:**

```
<article>
```

```
<h2>Famous Cities</h2>
```

```
<div class="city">
```

```
<h2>London</h2>
<p>London is the capital city of England.</p>
</div>
```

```
<div class="city">
```

```
<h2>Paris</h2>
<p>Paris is the capital and most populous city of France.</p>
</div>
```

```
<div class="city">
```

```
<h2>Tokyo</h2>
<p>Tokyo is the capital of Japan.</p>
</div>
```

```
</article>
```

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**<div> in <section> in <article>:**

```
<article>
```

```
<section>
```

```
<h2>Famous Cities</h2>
```

```
<div class="city">
```

```
<h2>London</h2>
```

```
<p>London is the capital city of England.</p>
```

```
</div>
```

```
<div class="city">
```

```
<h2>Paris</h2>
```

```
<p>Paris is the capital and most populous city of France.</p>
```

```
</div>
```

```
<div class="city">
```

```
<h2>Tokyo</h2>
```

```
<p>Tokyo is the capital of Japan.</p>
```

```
</div>
```

```
</section>
```

```
<section>
```

```
<h2>Famous Countries</h2>
```

```
<div class="country">
```

```
<h2>England</h2>
```

```
<p>London is the capital city of England.</p>
```

```
</div>
```

```
<div class="country">
```

```
<h2>France</h2>
```

```
<p>Paris is the capital and most populous city of France.</p>
```

```
</div>
```

```
<div class="country">
```

```
<h2>Japan</h2>
```

```
<p>Tokyo is the capital of Japan.</p>
```

```
</div>
```

```
</section>
```

```
</article>
```

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