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HTML Helpers

.NET Cohort

Coding Bootcamp

HTML Attributes

Elements in HTML have attributes: additional values to configure them or adjust their behavior.

Attributes are defined as part of the opening portion of the HTML tag.

Ex: `<p attr1="value" attr2="value2"></p>`

Common HTML Attributes

| Attribute | Usage |
|-------------|---|
| id | Identifies a unique element. Must be unique on the page. |
| name | Names an element. Multiple elements may share a name (and often do in the case of checkbox or radio button lists). |
| class | Used to reference CSS classes. Elements may have multiple CSS classes separated by a space. Class is a reserved word in C# so we have to say @class in Razor. |
| title | Most browsers display the title when the element is hovered over. |
| style | Applies a style directly to an element. (Best practice is to use CSS.) |
| placeholder | Puts placeholder text that is shown on an empty text input. |
| readonly | Makes an input tag read-only. |

@HTML

The built-in HTML helper has a lot of methods to generate HTML elements that are “model-binder” ready.

@HTML.ActionLink

Syntax

ActionLink(text, action, controller, routeValues, attributes)

Usage

```
@HTML.ActionLink("Link Text", "Index", "Home", new { id=5}, new {  
    @class="CSSClass" })
```

Result

```
<a href="/home/index/5" class="CSSClass">Link Text</a>
```

@AntiForgeryToken

Syntax

AntiForgeryToken()

Usage

@HTML.AntiForgeryToken

Result

Hidden field with a token value that ensures the form is not submitted by any user or process that did not receive the original form render (Ex: bots).

@BeginForm

Syntax

BeginForm(action, controller, routeValues, FormMethod, attributes)

Usage

```
@HTML.BeginForm("index","home", new {id=1}, FormMethod.Post, new {  
    role="form"})
```

Result

```
<form action="home/index/1" method="post" role="form">
```


@CheckBox

Syntax

CheckBox(id, checked, attributes)

Usage

@HTML.CheckBox("myCheck", true)

Result

```
<input type="checkbox" name="myCheck" id="myCheck"  
checked="checked" />
```

@CheckBoxFor

Syntax

`CheckBoxFor(lambda expression, attributes)`

Usage

`@HTML.CheckBoxFor(m => m.BoolProperty)`

Result

`<input type="checkbox" name="BoolProperty" id="BoolProperty" />`

@DropDownList

Syntax

DropDownList(name, IEnumerable<SelectListItem>, default text, attributes)

Usage

```
@HTML.DropDownList("myList",  
    new List<SelectListItem>{  
        new SelectListItem { Text="Item 1", Value="1"}},  
    "- select -", new { @class="ddl"})
```

Result

```
<select class="ddl" id="myList" name="myList">  
    <option value="">- select </option>  
    <option value="1">Item 1</option>  
</select>
```

@DropDownListFor

Syntax

DropDownListFor(lambda, IEnumerable<SelectListItem>, default text, attributes)

Usage

```
@HTML.DropDownList(m=>m.SelectedValue,  
    new List<SelectListItem>{  
        new SelectListItem { Text="Item 1", Value="1"}},  
    "- select -", new { @class="ddl"})
```

Result

```
<select class="ddl" id="myList" name="myList">  
    <option value="">- select </option>  
    <option value="1">Item 1</option>  
</select>
```

@Hidden

Syntax

Hidden(name, value)

Usage

@HTML.Hidden("myHidden", "banana")

Result

```
<input type="hidden" value="banana" name="myHidden"
id="myHidden" />
```

@HiddenFor

Syntax

HiddenFor(lambda)

Usage

@HTML.HiddenFor(m => m.Property)

Result

```
<input type="hidden" value="value of property" name="Property"
id="Property" />
```

@ListBox

Syntax

ListBox(name, IEnumerable<SelectListItem>, default text, attributes)

Usage

```
@HTML.ListBox("myList",  
    new List<SelectListItem>{  
        new SelectListItem { Text="Item 1", Value="1"}},  
    "- select -", new { @class="ddl" })
```

Result

```
<select class="ddl" id="myList" name="myList" multiple="multiple">  
    <option value="">- select </option>  
    <option value="1">Item 1</option>  
</select>
```

@ListBoxFor

Syntax

DropDownListFor(lambda, IEnumerable<SelectListItem>, default text, attributes)

Usage

```
@HTML.ListBoxFor(m=>m.SelectedItems, Model.Items, new  
{@class="lbx"})
```

Result

```
<select class="lbx" id="SelectedItems" multiple="multiple" name="SelectedItems">  
    <option value="1">option 1</option>  
    <option value="2">option 2</option>  
    <option value="3">option 3</option>  
    <option value="4">option 4</option>  
</select>
```


@Password

Syntax

Password(name, value)

Usage

@HTML.Password("pwd", "banana")

Result

<input type="password" value="banana" name="pwd" id="pwd" />

@PasswordFor

Syntax

PasswordFor(lambda, attributes)

Usage

@HTML.PasswordFor(m => m.Property)

Result

```
<input type="password" value="value of property" name="pwd"
id="pwd" />
```

@RadioButton

Syntax

RadioButton(name, value, checked, attributes)

Usage

```
@HTML.RadioButton("Gender", "male", true)
```

```
@HTML.RadioButton("Gender", "female", false)
```

Result

```
<input type="radio" id="Gender" name="Gender" value="male"  
checked="checked" />
```

```
<input type="radio" id="Gender" name="Gender" value="female" />
```

@RadioButtonFor

Syntax

RadioButtonFor(lambda expression, value, attributes)

Usage

```
@HTML.RadioButtonFor(m => m.Gender, "male", new  
{@checked="checked"})  
@HTML.RadioButtonFor(m => m.Gender, "female")
```

Result

```
<input type="radio" id="Gender" name="Gender" value="male"  
checked="checked" />  
<input type="radio" id="Gender" name="Gender" value="female" />
```

@TextArea

Syntax

TextArea(name, value)

Usage

@HTML.TextArea("myText", "some text")

Result

<textarea name="myText" id="myText">some text</textarea>

@TextAreaFor

Syntax

`TextAreaFor(lambda, attributes)`

Usage

`@HTML.TextAreaFor(m => m.Property)`

Result

`<textarea name="Property" id="Property">value of Property</textarea>`

@TextBox

Syntax

TextBox(name, value)

Usage

@HTML.TextBox("myText", "some text")

Result

<input type="text" name="myText" id="myText">some text</input>

@TextBoxFor

Syntax

`TextBoxFor(lambda, attributes)`

Usage

`@HTML.TextBoxFor(m => m.Property)`

Result

`<input type="text" value="value of property" name="Property"
id="Property" />`

Custom Helpers

The HTML helper methods are extension methods, so we can easily add our own helpers to the stack. Helpers must return an `MvcHtmlString` and can use the `TagBuilder` class to format HTML.

```
public static class HtmlHelperExtensions
{
    public static MvcHtmlString PlaceholderTextBox(this HtmlHelper htmlHelper,
                                                    string name, string placeholderText)
    {
        var builder = new TagBuilder("input");
        builder.MergeAttribute("type", "text");
        builder.MergeAttribute("name", name);
        builder.MergeAttribute("id", name);
        builder.MergeAttribute("placeholder", placeholderText);

        return MvcHtmlString.Create(builder.ToString(TagRenderMode.SelfClosing));
    }
}
```

Using it in a view

Then, you can just put a using statement in your view to the namespace of the extensions and call it! Ex: @HTML.PlaceHolderTextBox

```
@using MovieTracker.UI.Extensions
```

```
@{
```

```
    ViewBag.Title = "Index";
```

```
    Layout = null;
```

```
}
```

```
<h2>Index</h2>
```

```
@Html.PlaceHolderTextBox("myText", "Some placeholder text")
```

Gut Check

- What is the difference between `@HTML.TextBox()` and `@HTML.TextBoxFor()`
 - Why do we care?
 - Remember, it's the same for all the `<Control>For()`
- How do you add random attributes to the generated HTML?