**Section Cheat Sheet (PPT)**

Tag Helpers

Tag helpers are the classes that can be invoked as an html tag or html attribute.

They generate a html tag or adds values into attributes of existing html tags.

1. <input asp-for="ModelProperty">
2. <input type="text" name="ModelProperty" id="ModelProperty" value="ModelValue" />

**Tag Helpers for <a>, <form>**

* asp-controller
* asp-action
* asp-route-x
* asp-route
* asp-area

**Tag Helpers for <input>, <textarea>, <label>**

* asp-for

**Tag Helpers for <select>**

* asp-for
* asp-items

**Binding**

The form tags such as <input>, <label>, <textarea>, <select> can be bound with specific model properties.

It applies model property name to "name" and "id" attributes of <input> tag.

**Url Generation**

Route URLs' will be re-generated for <a> and <form> tags;

It generates the url as "controller/action" pattern.

**Tag Helpers for <img>**

* asp-append-version

**Tag Helpers for <span>**

* asp-validation-for

**Tag Helpers for <script>**

* asp-fallback-src
* asp-fallback-test

**Tag Helpers for <div>**

* asp-validation-summary

Tag Helpers for <form>

1. <form asp-controller="ControllerName" asp-action="ActionName">
2. </form>

will be converted as:

1. <form action="~/ControllerName/ActionName">
2. </form>

**asp-controller and asp-action**

Generates route url for the specified action method with "controller/action" route pattern.

Tag Helpers for <a>

<a asp-controller="ControllerName" asp-action="ActionName"> </a>

will be converted as:

<a href="~/ControllerName/ActionName"> </a>

**asp-controller and asp-action**

Generates route url for the specified action method with "controller/action" route pattern.

Tag Helpers for <a> and <form>

<a asp-controller="ControllerName" asp-action="ActionName" asp-route-parameter="value" > </a>

will be converted as:

<a href="~/ControllerName/ActionName/value-of-parameter"> </a>

**asp-route-x**

Specifies value for a route parameter, which can be a part of the route url.

Tag Helpers for <input>, <textarea>, <select>

<input asp-for="ModelProperty" />

will be converted as:

<input type="text" name="ModelProperty" id="ModelProperty" value="ModelValue" data-val-rule="ErrorMessage" />

**asp-for**

Generates "type", "name", "id", "data-validation" attributes for the <input>, <textarea>, <select> tags.

Tag Helpers for <label>

<label asp-for="ModelProperty"> </label>

will be converted as:

<label for="ModelProperty"> </label>

**asp-for**

Generates "for" attribute for the <label>.

Client Side Validations

**Data annotations on model properties**

1. [Required]
2. publicDataTypePropertyName { get; set; }

**"data-\*" attributes in html tags [auto-generated with "asp-for" helper]**

<input data-val="true" data-required="ErrorMessage" />

**Import jQuery Validation Scripts**

1. https://cdnjs.cloudflare.com/ajax/libs/ jquery/3.6.0/jquery.min.js
2. https://cdnjs.cloudflare.com/ajax/libs/ jquery-validate/1.19.3/jquery.validate.min.js
3. https://cdnjs.cloudflare.com/ajax/libs/ jquery-validation-unobtrusive/3.2.12/ jquery.validate.unobtrusive.min.js

Tag Helpers for <img>

1. <img src="~/FilePath" asp-append-version="true" />
2. <img src="/FilePath?v=HashOfImageFile" />

**asp-append-version**

* Generates SHA512 hash of the image file as query string parameter appended to the file path.
* It REGENERATES a new hash every time when the file is changed on the server. If the same file is requested multiple times, file hash will NOT be regenerated.

Tag Helpers for <script>

1. <script src="CDNUrl" asp-fallback-src="~/LocalUrl" asp-fallback-test="object"> </script>
2. <script src="CDNUrl"> </script>
3. <script> object || document.write("<script src='/LocalUrl'></script>"); </script>

**asp-fallback-src**

* It makes a request to the specified CDNUrl at the "src" attribute.
* It checks the value of the specified object at the "asp-fallback-test" tag helper.
* If its value is null or undefined (means, the script file at CDNUrl is not loaded), then it makes another request to the LocalUrl through another script tag.