C# Web – MVC

PRO - C# Web 1

**DE HOGESCHOOL
MET HET NETWERK**

Doel

- ASP.Net Core toepassing
  - MVC Web Application
    - TagHelper

ASP.NET CORE

MVC Web Application
MVCTagHelper

MVCTagHelper

- Models
  - Afdeling
  - Locatie
  - Land

- Data
  - TagHelperDbContext

- Packages
  - SQLServer
  - Tools

TagHelper

Name	Description
TagName	Get or Set the tag name for the output element.
Attributes	It returns a dictionary containing all the attributes of the output element.
Content	Used to set the contents of the output element.
PreElement	Used to insert Elements before the output element.
PostElement	Used to insert Elements after the output element.
PreContent	Used to insert contents into the output element before any existing content.
PostContent	Used to insert contents into the output element after any existing content.

TagHelper - ViewImports

- **Views/_ViewImports.cshtml**

```
@using MVCTagHelper
@using MVCTagHelper.Models
@addTagHelper *, Microsoft.AspNetCore.Mvc.TagHelpers
@addTagHelper *, MVCTagHelper
```

MVCTagHelper

- Create Folder
  - TagHelpers
  - Create class
    - BoldTagHelper

```csharp
namespace MVCTagHelper.TagHelpers
{
    // You may need to install the Microsoft.AspNetCore.Razor.Runtime package into
your project
    [HtmlTargetElement("bold")]
    public class BoldTagHelper : TagHelper
    {
        public override void Process(TagHelperContext context, TagHelperOutput output)
        {
            output.PreContent.SetHtmlContent("<b>");
            output.PostContent.SetHtmlContent("</b>");
        }
    }
}
```

MVCTagHelper

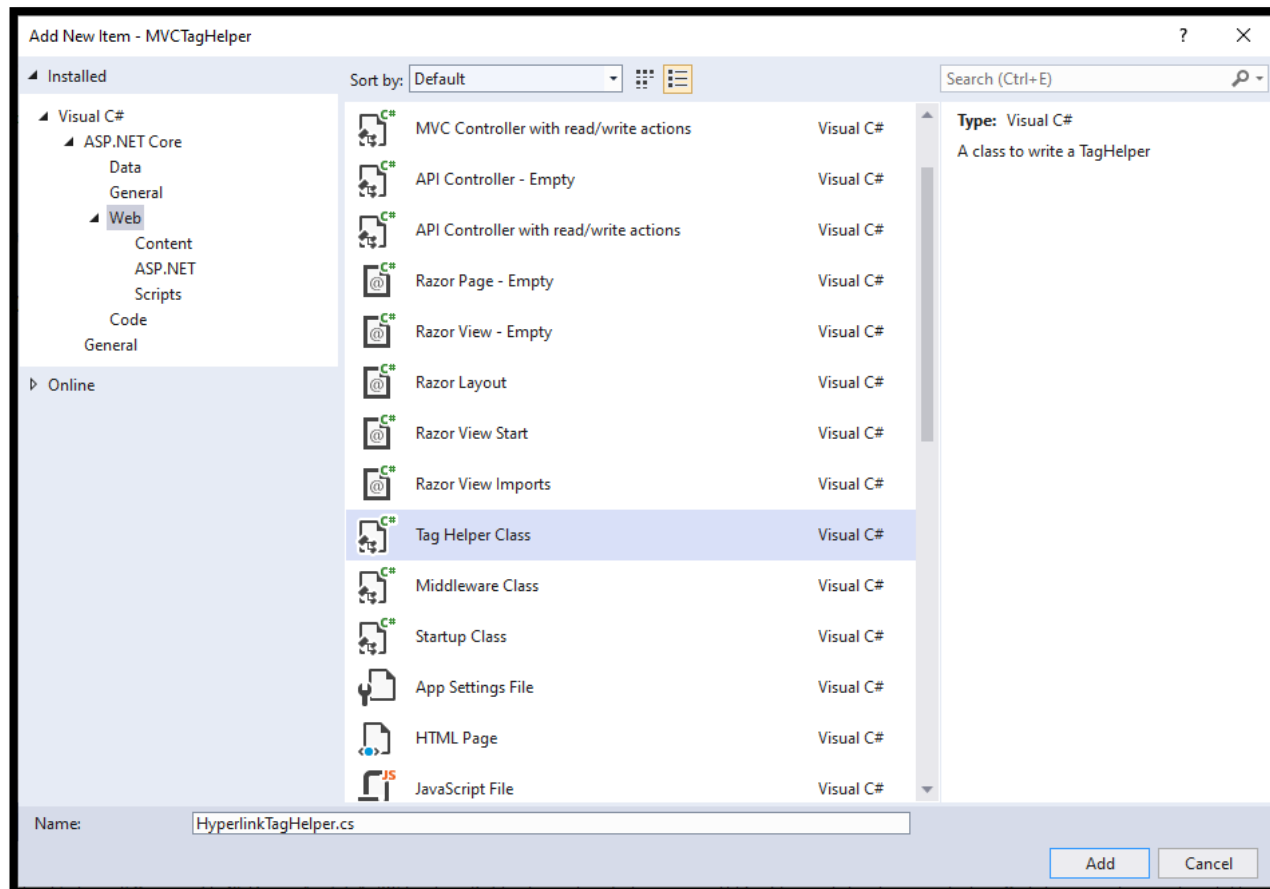- Views/Home/Index

```
@{
    ViewData["Title"] = "Home Page";
}

<div class="text-center">
    <h1 class="display-4">TagHelper</h1>
    <div>
        <bold>
            Dit is een informatieve website voor het gebruik van een
taghelper.
        </bold>
    </div>
</div>
```

MVCTagHelper

- Create taghelper
  - TagHelpers
    - HyperlinkTagHelper

MVCTagHelper

- HyperlinkTagHelper

```csharp
namespace MVCTagHelper.TagHelpers
{
    [HtmlTargetElement("a")]
    public class HyperlinkTagHelper : TagHelper
    {
        public override void Process(TagHelperContext context,
TagHelperOutput output)
        {
            output.Attributes.SetAttribute("class", "btn btn-danger");
        }
    }
}
```

MVCTagHelper

- HyperlinkTagHelper
  - Views/Shared/_Layout.cshtml

```
<div class="bg-primary row">
    <div class="col-1">
        <a hyperlink asp-controller="Landen" asp-action="Index">Landen</a>
    </div>
    <div class="col-1">
        <a hyperlink asp-controller="Locaties" asp-action="Index">Locaties</a>
    </div>
    <div class="col-1">
        <a hyperlink asp-controller="Afdelingen" asp-action="Index">Afdelingen</a>
    </div>
</div>
```

MVCTagHelper

- HyperlinkTagHelper

```
namespace MVCTagHelper.TagHelpers
{
    [HtmlTargetElement("a", Attributes = "background-color")]
    public class HyperlinkTagHelper : TagHelper
    {
        public string BackgroundColor { get; set; } = "danger";
        public override void Process(TagHelperContext context,
TagHelperOutput output)
        {
            output.Attributes.SetAttribute("class", $"btn btn-
{BackgroundColor}");
        }
    }
}
```

MVCTagHelper

- HyperlinkTagHelper
  - Views/Shared/_Layout.cshtml

```
<div class="bg-primary row">
    <div class="col-1">
        <a background-color="danger" asp-controller="Landen" asp-action="Index">Landen</a>
    </div>
    <div class="col-1">
        <a background-color="success" asp-controller="Locaties" asp-action="Index">Locaties</a>
    </div>
    <div class="col-1">
        <a background-color="warning" asp-controller="Afdelingen" asp-action="Index">Afdelingen</a>
    </div>
</div>
```

MVCTagHelper

- HeaderFooterTagHelper

Name	Description
TagName	Get or Set the tag name for the output element.
Attributes	It returns a dictionary containing all the attributes of the output element.
Content	Used to set the contents of the output element.
PreElement	Used to insert Elements before the output element.
PostElement	Used to insert Elements after the output element.
PreContent	Used to insert contents into the output element before any existing content.
PostContent	Used to insert contents into the output element after any existing content.

MVCTagHelper

- HeaderFooterTagHelper

```csharp
[HtmlTargetElement("div", Attributes = "header, footer")]
public class HeaderFooterTagHelper : TagHelper
{
    public string Header { get; set; }
    public string Footer { get; set; }
    public override void Process(TagHelperContext context, TagHelperOutput output)
    {
        if (!string.IsNullOrEmpty(Header) || !string.IsNullOrEmpty(Footer))
        {
            output.Attributes.SetAttribute("class", "m-1 p-1");
            if (!string.IsNullOrEmpty(Header))
            {
                output.PreElement.SetHtmlContent(GetFormattedDiv(Header));
            }
            if (!string.IsNullOrEmpty(Footer))
            {
                output.PostElement.SetHtmlContent(GetFormattedDiv(Footer));
            }
        }
    }
```

MVCTagHelper

- HeaderFooterTagHelper

```csharp
private TagBuilder GetFormattedDiv(string content)
        {
                TagBuilder title = new TagBuilder("h1");
                title.InnerHtml.Append(content);
                TagBuilder container = new TagBuilder("div");
                container.Attributes["class"] = "bg-info m-1 p-1";
                container.InnerHtml.AppendHtml(title);
                return container;
        }
```

MVCTagHelper

- HeaderFooterTagHelper
  - Views/Locaties/Index.cshtml

```
@{
    ViewData["Title"] = "Index";
    var header = "Locaties";
    var footer = $"Locaties - {DateTime.Now.ToString("dd/MM/yyyy")}";
}

<div header=@header footer=@footer>

    <p>
        <a asp-action="Create">Create New</a>
    </p>
…
```

MVCTagHelper

- AfdelingCardTagHelper

- Create Folder (project niveau)
  - ViewModels
    - Create class
      - AfdelingCard.cs

MVCTagHelper

- AfdelingCardTagHelper - AfdelingCard.cs

```csharp
namespace MVCTagHelper.ViewModels
{
    public class AfdelingCard
    {
        //TagHelperContext _context;
        public AfdelingCard(TagHelperDbContext context, Afdeling afdeling)
        {
            //_context = context;
            AfdelingId = afdeling.AfdelingId;
            AfdelingNaam = afdeling.AfdelingNaam;
            Locatie = afdeling.Locatie.Stad;
            Land = afdeling.Locatie.Land.LandNaam;
            LandCode = afdeling.Locatie.Land.LandCode;
            Afdeling = afdeling;
        }
        public Afdeling Afdeling { get; set; }
        public int AfdelingId { get; set; }
        public string AfdelingNaam { get; set; }
        public string Locatie { get; set; }
        public string LandCode { get; set; }
        public string Land { get; set; }
    }
}
```

MVCTagHelper

- AfdelingCardTagHelper

```csharp
[HtmlTargetElement(Attributes = "afdeling-card-view-model")]
    public class AfdelingCardTagHelper : TagHelper
    {
        public AfdelingCard AfdelingCardViewModel { get; set; }
        public override void Process(TagHelperContext context, TagHelperOutput output)
        {
            string content = $@"<div class='card'>";
            content += $@"<h4 class='card-title'>{AfdelingCardViewModel.AfdelingNaam}</h4>";
            content += $@"<p class='card-position'>{AfdelingCardViewModel.LandCode} - {AfdelingCardViewModel.Locatie}</p>";
            content += $@"<p class='card-description'>De afdeling {AfdelingCardViewModel.AfdelingNaam} ligt in {AfdelingCardViewModel.Land}. </p>";
            output.TagName = "div";
            output.Content.SetHtmlContent(content);
        }
    }
```

MVCTagHelper

- AfdelingCardTagHelper
  - AfdelingenController - Details

```csharp
public async Task<IActionResult> Details(int? id)
{
    if (id == null)
    {
        return NotFound();
    }

    var afdeling = await _context.Afdelingen
        .Include(a => a.Locatie)
        .ThenInclude(l => l.Land)
        .FirstOrDefaultAsync(m => m.AfdelingId == id);
    if (afdeling == null)
    {
        return NotFound();
    }
    var afdelingCard = new AfdelingCard(_context, afdeling);
    return View(afdelingCard);
}
```

MVCTagHelper

- AfdelingCardTagHelper
  - Views/Afdelingen/Details

```
@model MVCTagHelper.ViewModels.AfdelingCard

<afdeling-card afdeling-card-view-model="@Model"></afdeling-card>
```

Pluralsight

https://app.pluralsight.com/library/courses/aspdotnet-core-tag-helpers/table-of-contents

ASP.NET CORE TAGHELPER

**MVC Web Application – Oefening 10
Medewerker**