



C# Web

PRO/PRW - C# Web 1

DE HOGESCHOOL MET HET NETWERK

Hogeschool PXL – Elfde-Liniestraat 24 – B-3500 Hasselt
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Doel

- ASP.Net Core toepassing
 - MVC Web Application
 - MVCTagHelper
 - Table Reference Keys
 - TagHelper

ASP.NET CORE

MVC Web Application
MVCTagHelper

Teams – Attachments – MVCTaghelper.zip

MVCTagHelper

- Models
 - Afdeling
 - Locatie
 - Land

- Data
 - TagHelperDbContext

- Packages
 - SQLServer
 - Tools

MVCTagHelper

- Nuget Package Manager Console
 - Update-database
 - Connection string
 - Appsettings.json

```
builder.Services.AddDbContext<TagHelperDbContext>
(
    opts =>
    {
        opts.UseSqlServer
        (
            builder.Configuration.GetConnectionString
            (
                "TagHelperConnection"
            )
        );
    }
);
```

MVCTagHelper

- Nuget Package Manager Console
 - Update-database

MVCTagHelper

```
public class Afdeling
{
    public int AfdelingId { get; set; }
    public string AfdelingNaam { get; set; }
    public int LocatieId { get; set; }
    public Locatie Locatie { get; set; }
}
```

PXL - MVC TagHelper

Landen Locaties **Afdelingen**

Index

[Create New](#)

| AfdelingNaam | Locatie | |
|--------------|---------|---|
| Aankoop | 1 | Edit Details Delete |
| Verkoop | 2 | Edit Details Delete |
| Onderzoek | 3 | Edit Details Delete |

MVCTagHelper

```
public class Locatie
{
    public int LocatieId { get; set; }
    public string Stad { get; set; }
    public int LandId { get; set; }
    public ICollection<Afdeling> Afdelingen { get; set; }
    public Land Land { get; set; }
}
```

PXL - MVC TagHelper

[Landen](#) [Locaties](#) [Afdelingen](#)

Index

[Create New](#)

| Stad | Land | |
|-----------|------|---|
| Brussel | 1 | Edit Details Delete |
| Hasselt | 1 | Edit Details Delete |
| AmsterDam | 2 | Edit Details Delete |

MVCTagHelper

```
public class Land
{
    public int LandId { get; set; }
    public string LandCode { get; set; }
    public string LandNaam { get; set; }
    public ICollection<Locatie> Locaties { get; set; }
}
```

PXL - MVC TagHelper

[Landen](#) [Locaties](#) [Afdelingen](#)

Index

[Create New](#)

| LandCode | LandNaam | |
|----------|-----------|---|
| BE | België | Edit Details Delete |
| NL | Nederland | Edit Details Delete |

TagHelper

| <u>Name</u> | <u>Description</u> |
|--------------------|--|
| 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

```
namespace MVCTagHelper.TagHelpers
{
    [HtmlTargetElement("bold")]
    public class BoldTagHelper : TagHelper
    {
        public override void Process(TagHelperContext context, TagHelperOutput output)
        {
            output.PreContent.SetHtmlContent("<b>");
            output.PostContent.SetHtmlContent("</b>");
        }
    }
}
```

MVCTagHelper

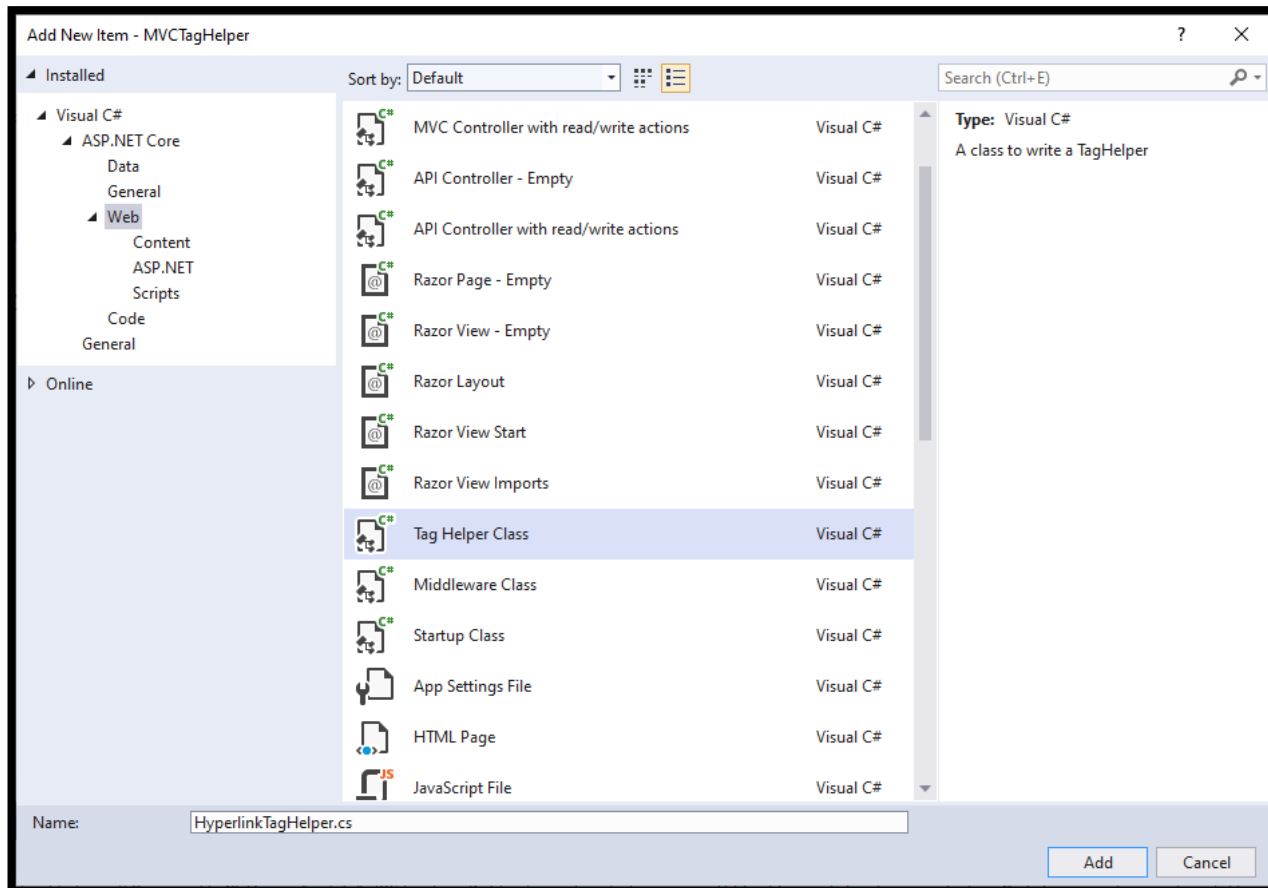
- Views/Home/Index

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

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

MVCTagHelper

- Create taghelper
 - TagHelpers
 - HyperlinkTagHelper



MVCTagHelper

- HyperlinkTagHelper

```
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 asp-controller="Landen" asp-action="Index">Landen</a>
  </div>
  <div class="col-1">
    <a asp-controller="Locaties" asp-action="Index">Locaties</a>
  </div>
  <div class="col-1">
    <a 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

PXL - MVC TagHelper

Landen Locaties Afdelingen

Locaties

[Create New](#)

| Land | |
|----------|---|
| ussel | 1 Edit Details Delete |
| sselt | 1 Edit Details Delete |
| hsterDam | 2 Edit Details Delete |

Locaties - 16/10/2021

| 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

```
public class HeaderFooterTagHelper : TagHelper
{
    public override void Process(...)
    {}

    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

```
[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
 - 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

```
namespace MVCTagHelper.ViewModels
{
    public class AfdelingCard
    {
        public AfdelingCard(Afdeling afdeling)
        {
            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

```
[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

```
public IActionResult Details(int? id)
{
    if (id == null)
    {
        return NotFound();
    }

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

MVC Web Application

MVCTagHelper

Blackboard – Lesmateriaal – Oefeningen

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