



# C# Web – MVC

## PRO - C# Web 1

### DE HOGESCHOOL MET HET NETWERK

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# Doel

- ASP.Net Core toepassing
  - MVC Web Application
    - Models
    - Views
    - Controllers
  - Entity framework
    - Table reference keys
  - Uitleg project

# ASP.NET CORE

**MVC Web Application**

## Models folder

- Add Team.cs

```
namespace MVCFifa2021.Models
{
    public class Team
    {
        public int TeamId { get; set; }
        [Required]
        public string TeamName { get; set; }
    }
}
```

## Controllers folder

- Add TeamController.cs

## Views folder

- Add folder Team
  - Scaffold Razor View - Index – List Template – Team Model
  - Scaffold Razor View - Create – Create Template – Team Model
  - Geen Data context class selecteren

```
public class ApplicationDbContext : DbContext
{
    public ApplicationDbContext(DbContextOptions<ApplicationDbContext> options) : base(options)
    {
    }
    public DbSet<Player> Players { get; set; }
    public DbSet<Team> Teams { get; set; }
}
```

## Dependency Injection

- TeamController
  - Add Constructor
    - TeamController(DbContext Service)

```
public class TeamController : Controller
{
    ApplicationDbContext _context;
    public TeamController(ApplicationDbContext context)
    {
        _context = context;
        _context.Database.EnsureCreated();
    }
    // ... Code not shown for clarity
}
```

- TeamController
  - Read data
    - Index

```
public IActionResult Index()  
{  
    var teams = _context.Teams;  
    return View(teams);  
}
```

- TeamController
  - Insert data
    - Create

```
[HttpGet]
public IActionResult Create()
{
    var team = new Team();
    return View(team);
}
[HttpPost]
public IActionResult Create(Team team)
{
    if (ModelState.IsValid)
    {
        _context.Teams.Add(team);
        _context.SaveChanges();
        return RedirectToAction("Index");
    }
    return View(team);
}
```



- Styling the content
  - Views/Shared
    - \_Layout.cshtml

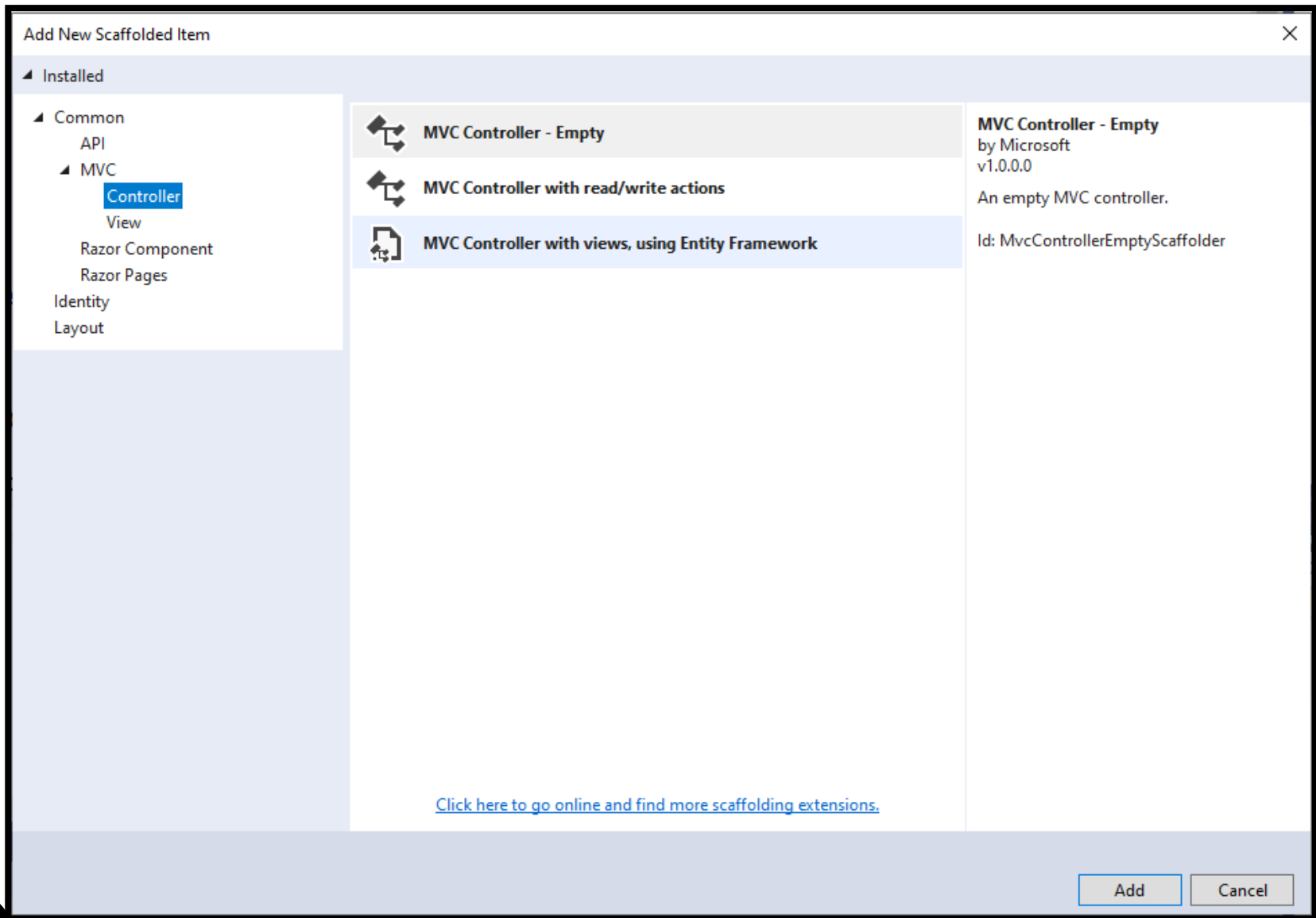
```
<div class="row">
  <div class="col-1"></div>
  <div class="col-3">
    <br />
    <a asp-controller="Player" asp-action="Index">Players</a>
    <br />
    <a asp-controller="Team" asp-action="Index">Teams</a>
  </div>
```

## Models folder

- Add TeamPlayer.cs

```
namespace MVCFifa2021.Models
{
    public class TeamPlayer
    {
        public int Id { get; set; }
        public int TeamId { get; set; }
        public int PlayerId { get; set; }
        public DateTime StartDate { get; set; }
        public DateTime EndDate { get; set; }
    }
}
```

## Scaffold – New controller



## Scaffold – New controller

Add MVC Controller with views, using Entity Framework ✕

Model class: TeamPlayer (MVCFifa2021.Models) ▾

Data context class: ApplicationDbContext (MVCFifa2021.Data) ▾ +

Views:

☒ Generate views

☒ Reference script libraries

☒ Use a layout page:

...

(Leave empty if it is set in a Razor \_viewstart file)

Controller name: TeamPlayerController

Add Cancel

- Styling the content
  - Views/Shared
    - \_Layout.cshtml

```
<div class="row">
  <div class="col-1"></div>
  <div class="col-3">
    <br />
    <a asp-controller="Player" asp-action="Index">Players</a>
    <br />
    <a asp-controller="Team" asp-action="Index">Teams</a>
    <br />
    <a asp-controller="TeamPlayer" asp-
action="Index">Teamplayers</a>

  </div>
```

## Database

- EnsureCreated()
  - Database is ondertussen gewijzigd in onze ApplicationDbContext
  - We moeten database wissen zodat hij ook de nieuwe tabellen aanmaakt via het EnsureCreated() commando
- Migrations

## AddModelError

```
public async Task<IActionResult>
Create([Bind("Id,TeamId,PlayerId,StartDate,EndDate")] TeamPlayer teamPlayer)
{
    if (ModelState.IsValid)
    {
        if (_context.Players.Where(x => x.PlayerId ==
teamPlayer.PlayerId).Count() == 0)
        {
            ModelState.AddModelError("Error", "Er bestaat geen link tussen de
pleyerid uit de 2 tabellen!");
            return View(teamPlayer);
        }
        else
        {
            ...
        }
        ...
    }
}
```

# ASP.NET CORE

**MVC Web Application – Project**