C# Web – MVC

PRO/PRW - C# Web 1

DE HOGESCHOOL
MET HET NETWERK

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

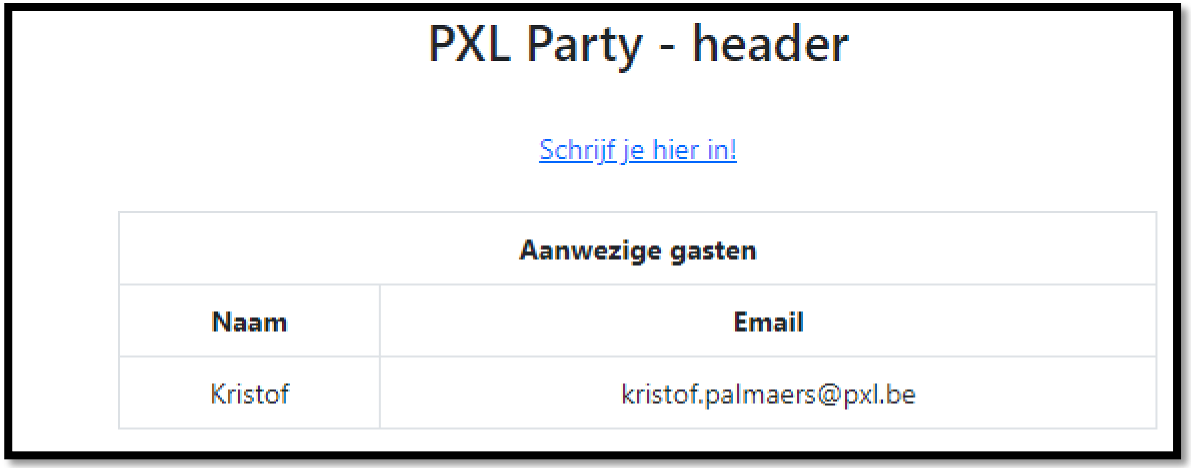
- ASP.Net Core toepassing
  - Identity Framework

ASP.NET CORE

MVC Web Application
MVCPartyInvites

Identity Framework

- Nuget Package Manager Console
  - Update-database



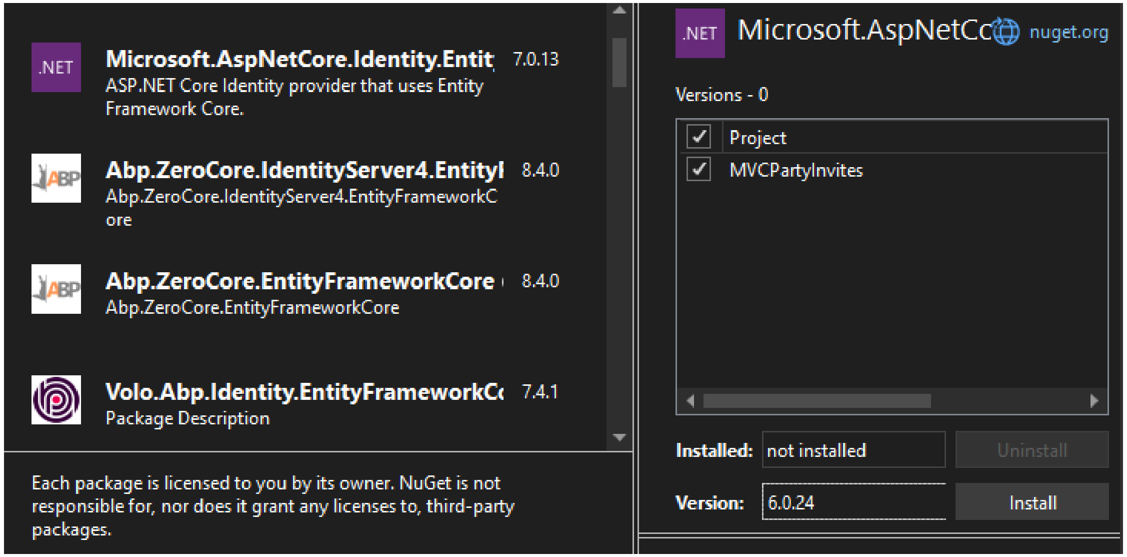
PXL Party - header

Schrijf je hier in!

Aanwezige gasten	
Naam	**Email**
Kristof	kristof.palmaers@pxl.be

Identity Framework

- NPM – Microsoft.AspNetCore.Identity.EntityFrameworkCore



.NET **Microsoft.AspNetCore.Identity.Entit** 7.0.13
ASP.NET Core Identity provider that uses Entity Framework Core.

Abp.ZeroCore.IdentityServer4.EntityI 8.4.0
Abp.ZeroCore.IdentityServer4.EntityFrameworkCore

Abp.ZeroCore.EntityFrameworkCore 8.4.0
Abp.ZeroCore.EntityFrameworkCore

Volo.Abp.Identity.EntityFrameworkC 7.4.1
Package Description

Each package is licensed to you by its owner. NuGet is not responsible for, nor does it grant any licenses to, third-party packages.

.NET Microsoft.AspNetCo nuget.org

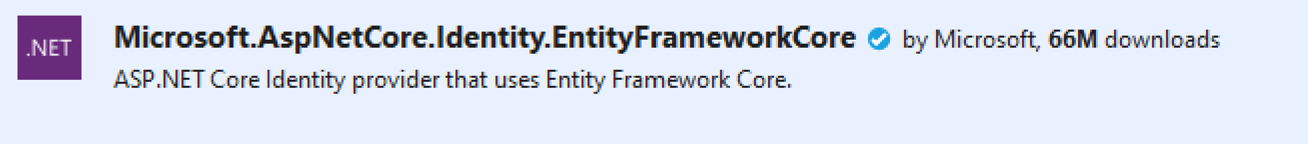
Versions - 0

☑ Project
☑ MVCPartyInvites

Installed: not installed Uninstall

Version: 6.0.24 Install

- Nuget Package Manager - Browse
  - Identity.EntityFrameworkCore



.NET **Microsoft.AspNetCore.Identity.EntityFrameworkCore** by Microsoft, **66M** downloads
ASP.NET Core Identity provider that uses Entity Framework Core.

Identity Framework

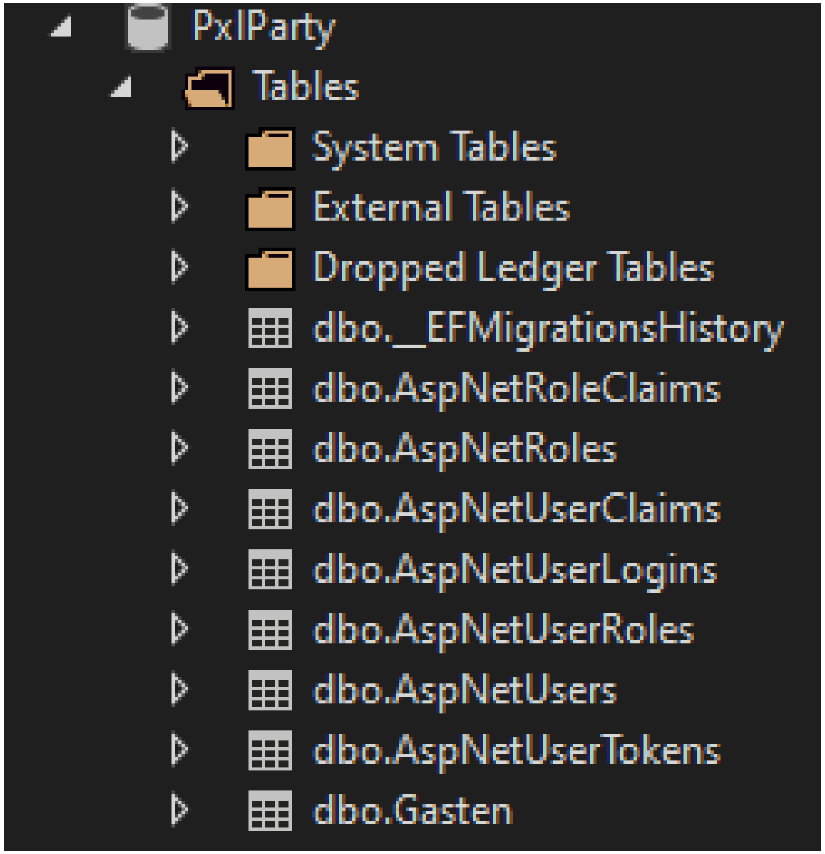
- Data - PartyContext

```
namespace MVCPartyInvites.Data
{
    public class PartyContext : IdentityDbContext
    {
        public PartyContext(DbContextOptions<PartyContext> options) :
                                      base(options)
        {

        }
        public DbSet<Gast>? Gasten { get; set; }
    }
}
```

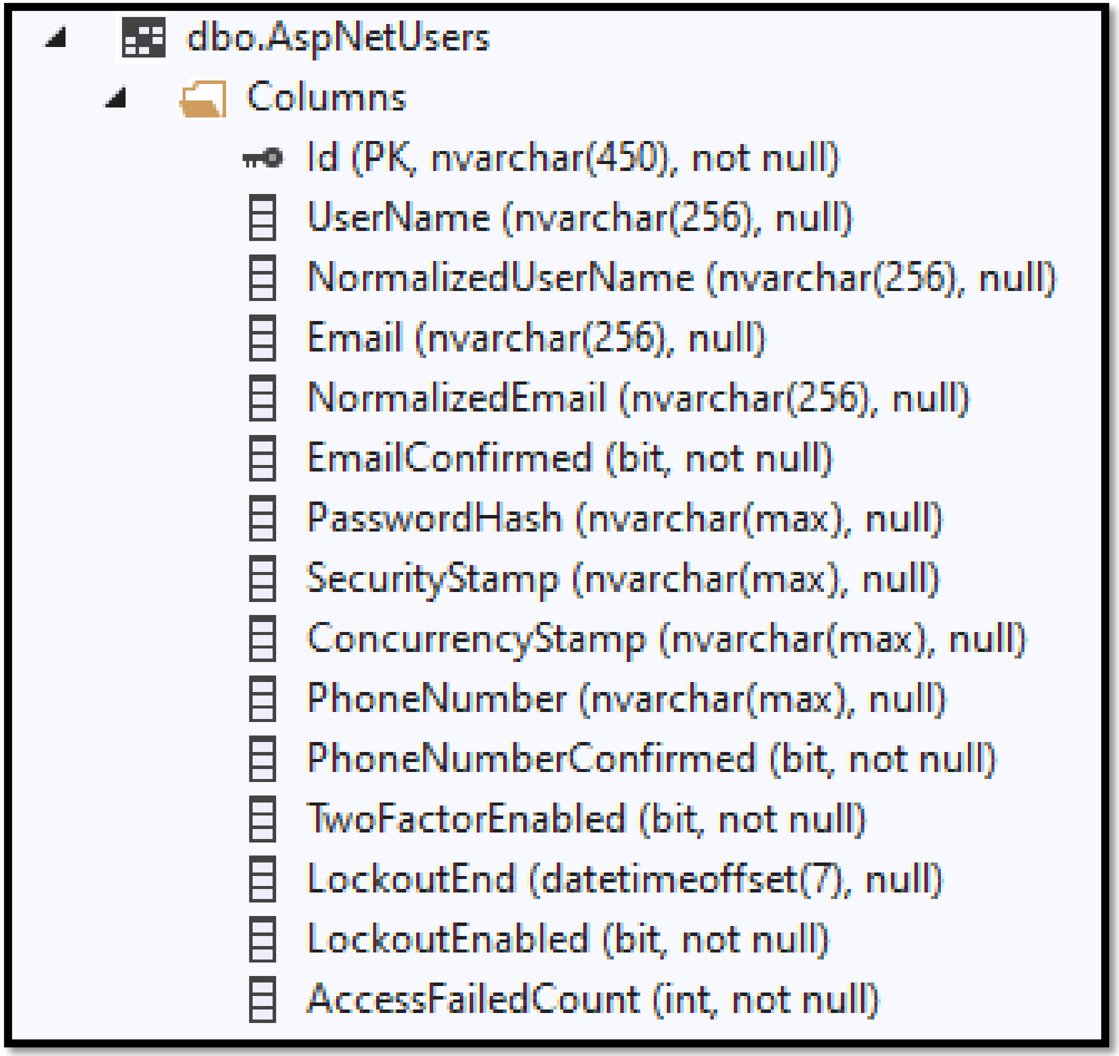
Identity Framework

- Nuget Package Manager Console
  - Add-migration identity
  - Update-database



PxlParty
Tables
System Tables
External Tables
Dropped Ledger Tables
dbo.__EFMigrationsHistory
dbo.AspNetRoleClaims
dbo.AspNetRoles
dbo.AspNetUserClaims
dbo.AspNetUserLogins
dbo.AspNetUserRoles
dbo.AspNetUsers
dbo.AspNetUserTokens
dbo.Gasten

Identity – IdentityUser AspNetUsers



```
◢ dbo.AspNetUsers
    ◢ Columns
        Id (PK, nvarchar(450), not null)
        UserName (nvarchar(256), null)
        NormalizedUserName (nvarchar(256), null)
        Email (nvarchar(256), null)
        NormalizedEmail (nvarchar(256), null)
        EmailConfirmed (bit, not null)
        PasswordHash (nvarchar(max), null)
        SecurityStamp (nvarchar(max), null)
        ConcurrencyStamp (nvarchar(max), null)
        PhoneNumber (nvarchar(max), null)
        PhoneNumberConfirmed (bit, not null)
        TwoFactorEnabled (bit, not null)
        LockoutEnd (datetimeoffset(7), null)
        LockoutEnabled (bit, not null)
        AccessFailedCount (int, not null)
```

Identity Framework

- Program.cs - Services

```
var connectionString =
builder.Configuration.GetConnectionString("PartyConnection");

builder.Services.AddDbContext<PartyContext>(
        options => options.UseSqlServer(connectionString));

builder.Services.AddIdentity<IdentityUser, IdentityRole>()
        .AddEntityFrameworkStores<PartyContext>();
```

- IdentityUser
  - AspNetUsers
- IdentityRole
  - AspNetRoles

Identity Framework

- Program.cs - Middleware

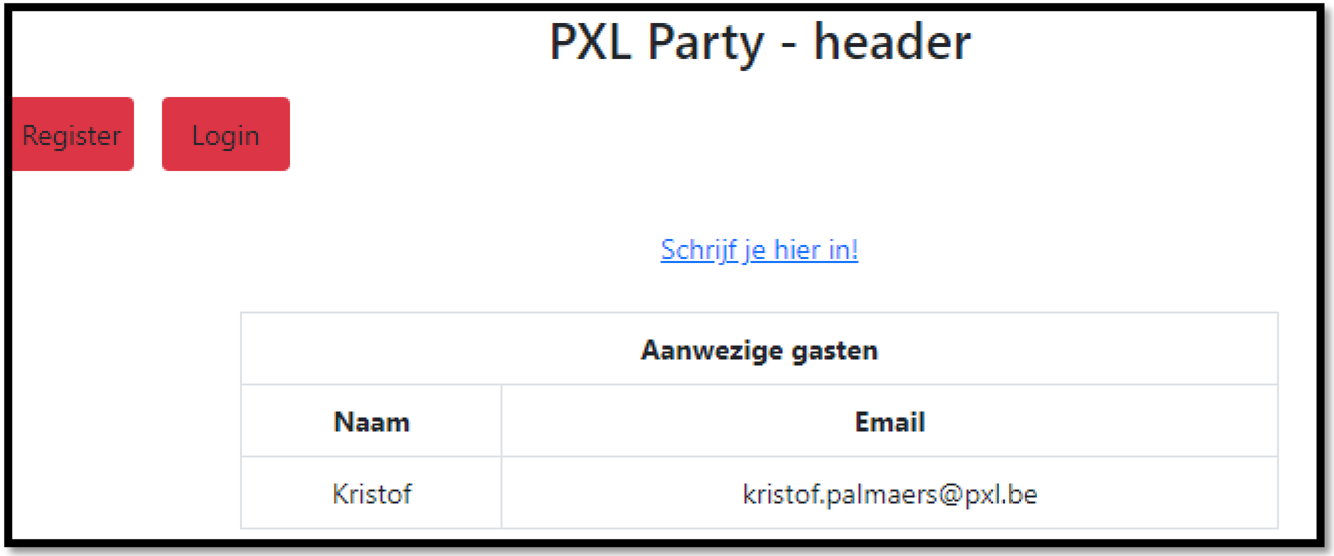
```
…

app.UseAuthentication();
app.UseAuthorization();

app.MapControllerRoute(
    name: "default",
    pattern: "{controller=Home}/{action=Index}/{id?}");
…
```

Identity Framework

- Views/Shared
  - Add partial View (Add empty razor View)
    - _LoginPartial.cshtml



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Identity Framework

- Views/Shared
  - Add partial View (Add empty razor View)
    - _LoginPartial.cshtml

```
<div class="row">
    <a class="btn bg-danger col-1 m-2 p-2"
       asp-controller="Account" asp-action="Register">
              Register</a>
    <a class="btn bg-danger col-1 m-2 p-2"
       asp-controller="Account" asp-action="Login">Login</a>
</div>
```

Identity Framework

- Views/Shared
  - _Layout.cshtml

```
<body>
    <header >
        <div class="text-center">
            <h2>PXL Party - header</h2>
        </div>
        <partial name="_LoginPartial" />
    </header>
```

Identity Framework

- Register action

```
var result = await _userManager.CreateAsync(
       user, Input.Password);
```

- Signin action

```
await _signInManager.SignInAsync(user, isPersistent: false);
```

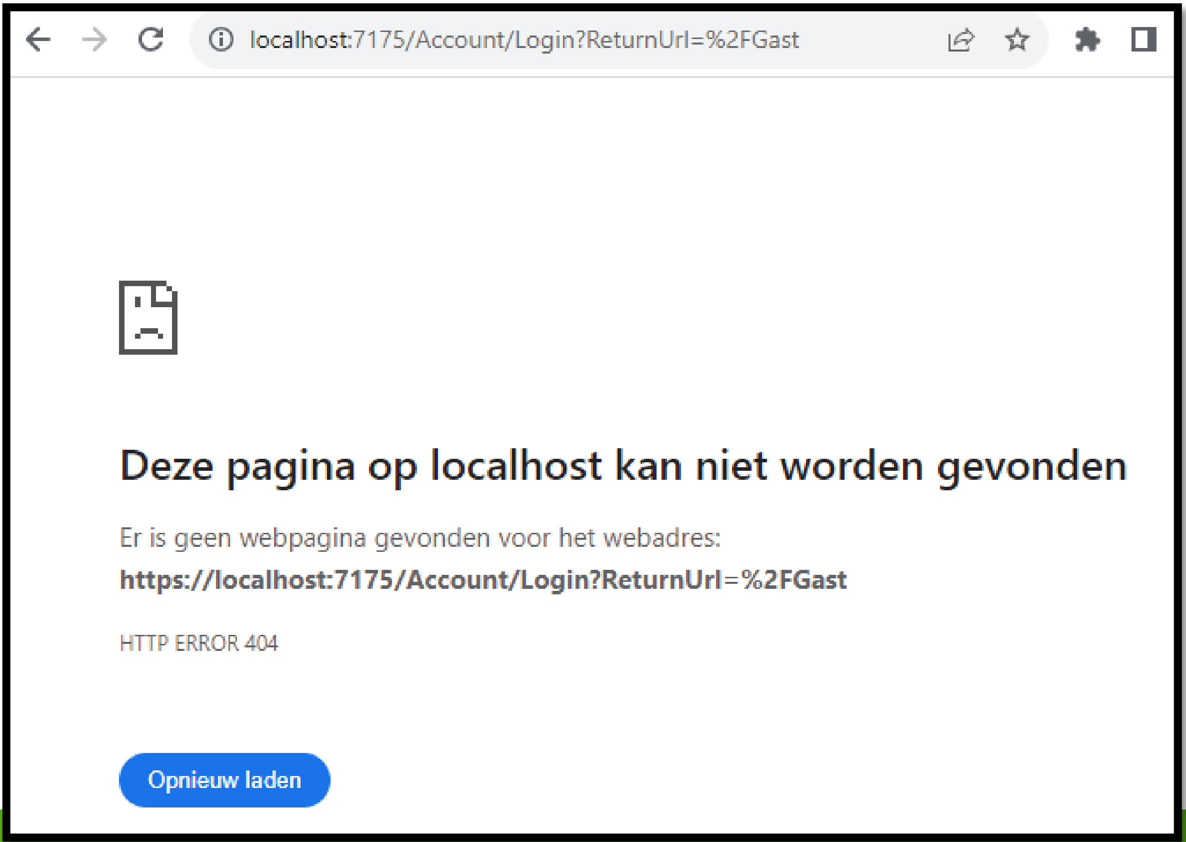
- Errors – Identity result

```
foreach (var error in result.Errors)
{
    ModelState.AddModelError(string.Empty, error.Description);
}
```

Identity Framework - Authentication

- Controllers - GastController

```
namespace MVCPartyInvites.Controllers
{
    [Authorize]
    public class GastController : Controller
```



localhost:7175/Account/Login?ReturnUrl=%2FGast

Deze pagina op localhost kan niet worden gevonden

Er is geen webpagina gevonden voor het webadres: **https://localhost:7175/Account/Login?ReturnUrl=%2FGast**

HTTP ERROR 404

MVCPartyInvites - Identity

- Add folder ViewModels in Project Folder
  - Add class LoginViewModel

```
namespace MVCPartyInvites.ViewModels
{
    public class LoginViewModel
    {
        public int Id { get; set; }
        public string Email { get; set; }
        public string Password { get; set; }
    }
}
```

MVCPartyInvites - Identity

- Add folder ViewModels in Project Folder
  - Add class RegisterViewModel

```
namespace MVCPartyInvites.ViewModels
{
    public class RegisterViewModel
    {
        public int Id { get; set; }
        public string Email { get; set; }
        public string Password { get; set; }
        public string ConfirmPassword { get; set; }

    }
}
```

MVCPartyInvites - Identity

Identity Framework – AccountController

- Controllers – Add empty MVC Controller
  - AccountController

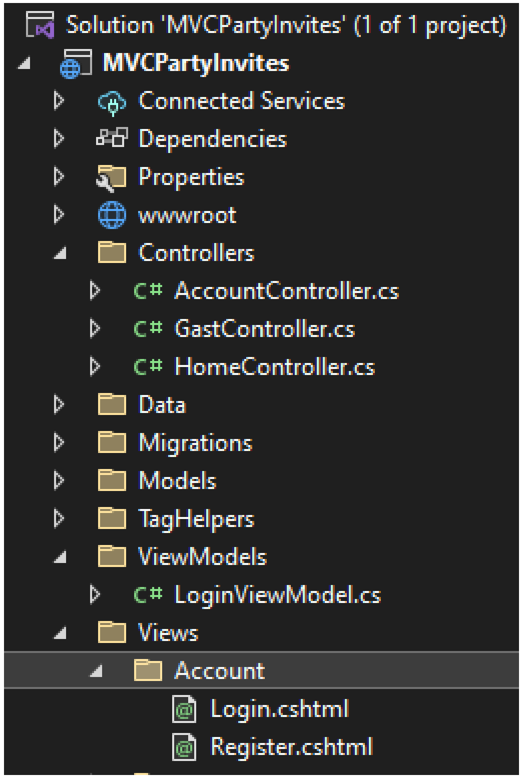
MVCPartyInvites - Identity

Identity Framework – AccountController

```
namespace MVCPartyInvites.Controllers
{
    public class AccountController : Controller
    {
        public IActionResult Login()
        {
            return View();
        }
        public IActionResult Register()
        {
            return View();
        }
    }
}
```

Identity Framework – AccountController

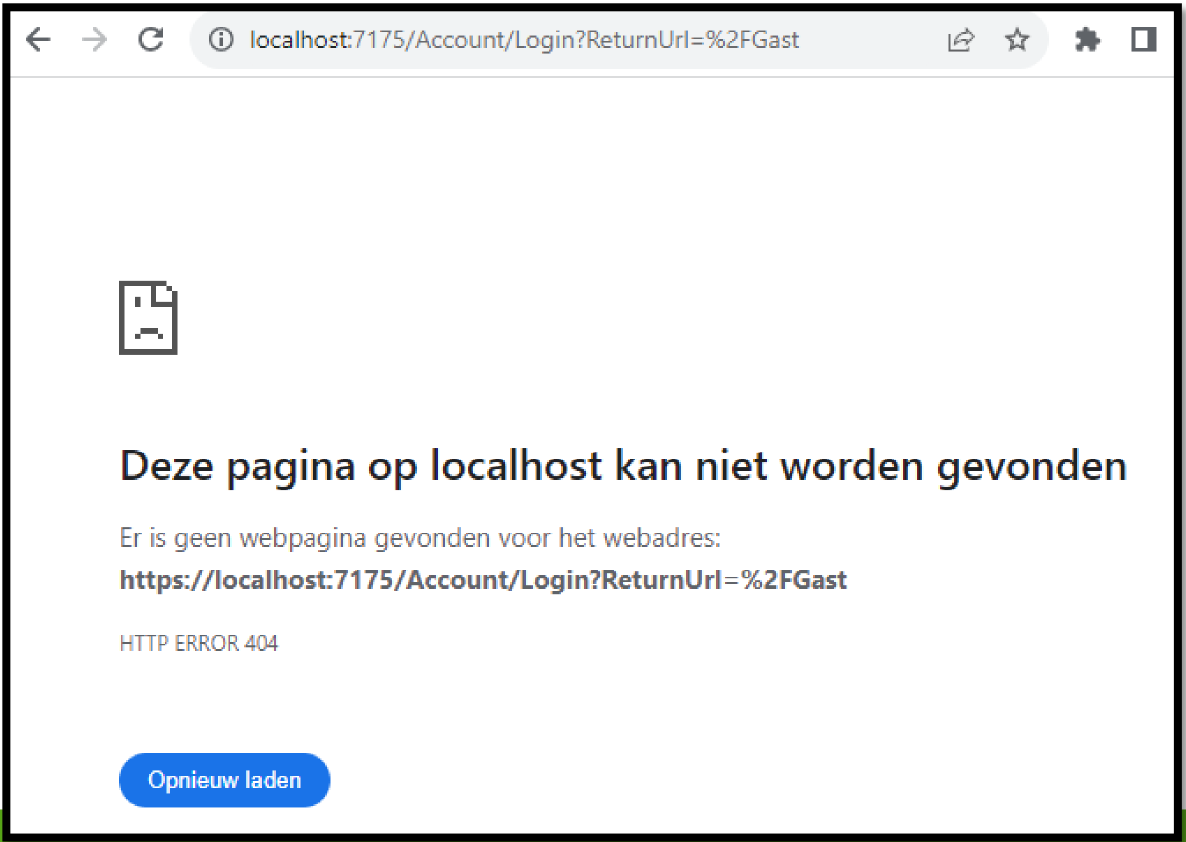
- Views
  - Add Folder Views/Account
    - Scaffold Razor View
      - Login (Create template – LoginViewModel)
      - Register (Create template – RegisterViewModel)



Identity Framework - Authentication

- Controllers - GastController

```
namespace MVCPartyInvites.Controllers
{
    [Authorize]
    public class GastController : Controller
```



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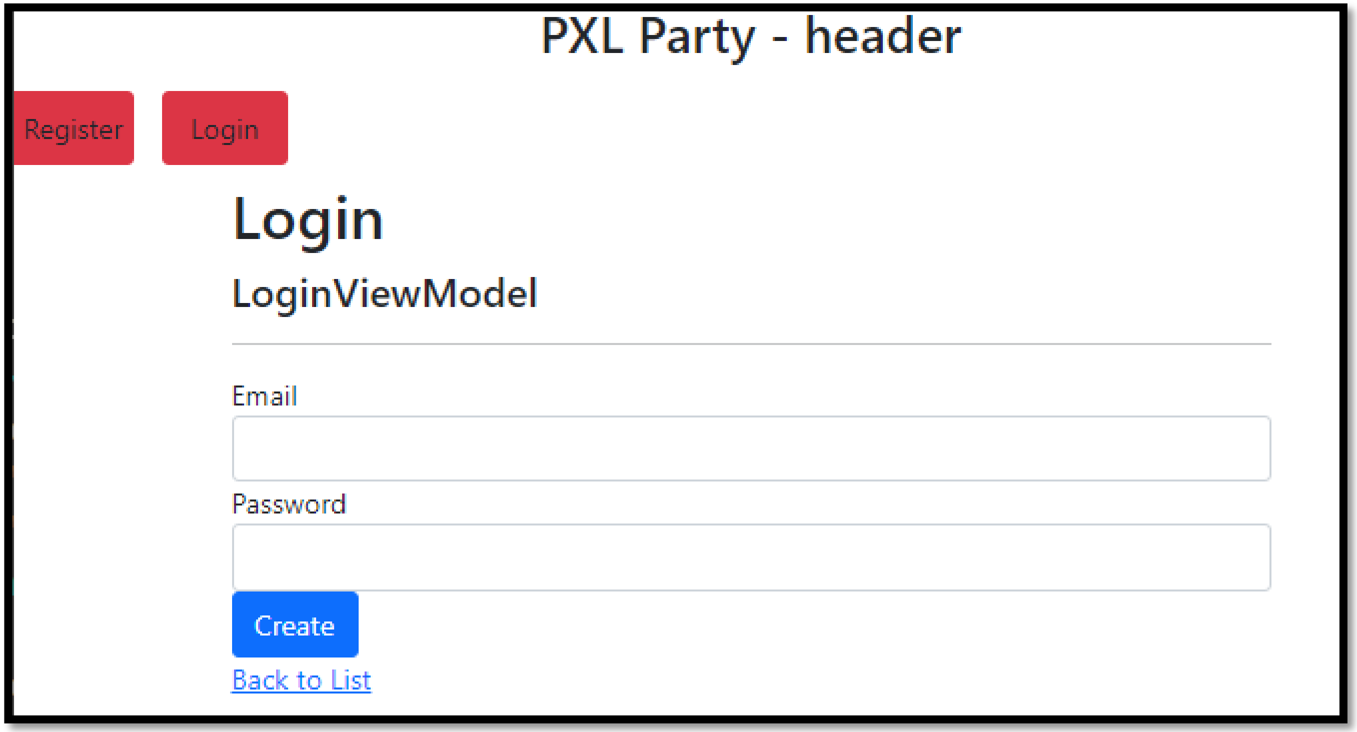
HTTP ERROR 404

Identity Framework - Authentication

```
• Controllers - GastController
```

```
namespace MVCPartyInvites.Controllers
{
    [Authorize]
    public class GastController : Controller
```



PXL Party - header

Login

LoginViewModel

Email

Password

ASP.NET CORE

Oefening

MVCPartyInvites

- **Register**

Identity Framework - Authentication

- Controllers – AccountController - Register

```
[HttpPost]
public IActionResult Register(RegisterViewModel registerViewModel)
{
    if (ModelState.IsValid)
    {
       //All Validations in view
    }
    return View();
}
```

Identity Framework - Authentication

- Controllers – AccountController - Register

```
[HttpPost]
public IActionResult Register(RegisterViewModel registerViewModel)
{
    if (ModelState.IsValid)
    {
        //ConfirmPassword
        if (registerViewModel.Password.Equals(registerViewModel.ConfirmPassword))
        {
                  return RedirectToAction("Index", "Home");
        }
        else
        {
            ModelState.AddModelError("", "Password & comp pwd are not the same!");
        }
    }
    return View();
}
```

Identity Framework - Authentication

- Controllers – AccountController - Register

```
[HttpPost]
public IActionResult Register(RegisterViewModel registerViewModel)
{
    if (ModelState.IsValid)
    {
        //ConfirmPassword
        if (registerViewModel.Password.Equals(registerViewModel.ConfirmPassword))
        {
            //UserManager
            var identityUser = new IdentityUser();
            identityUser.Email = registerViewModel.Email;
            identityUser.UserName = registerViewModel.Email;
            var result = _userManager.CreateAsync(
                  identityUser, registerViewModel.Password);
            return RedirectToAction("Index", "Home");
        }
        else
        {
            ModelState.AddModelError("", "Password & comp pwd are not the same!");
        }
    }
    return View();
}
```

Identity Framework - Authentication

- Controllers – AccountController - Register

```
…
var result = await _userManager.CreateAsync(identityUser,
       registerViewModel.Password);
if (result.Succeeded)
{
       return RedirectToAction("Index", "Home");
}
else
{
       foreach (var error in result.Errors)
       {
              ModelState.AddModelError("", error.Description);
       }
}
```