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ASP.NET Core Session Data

Hans-Petter Halvorsen

ASP.NET Core | Session Data

Web Page 1



Data

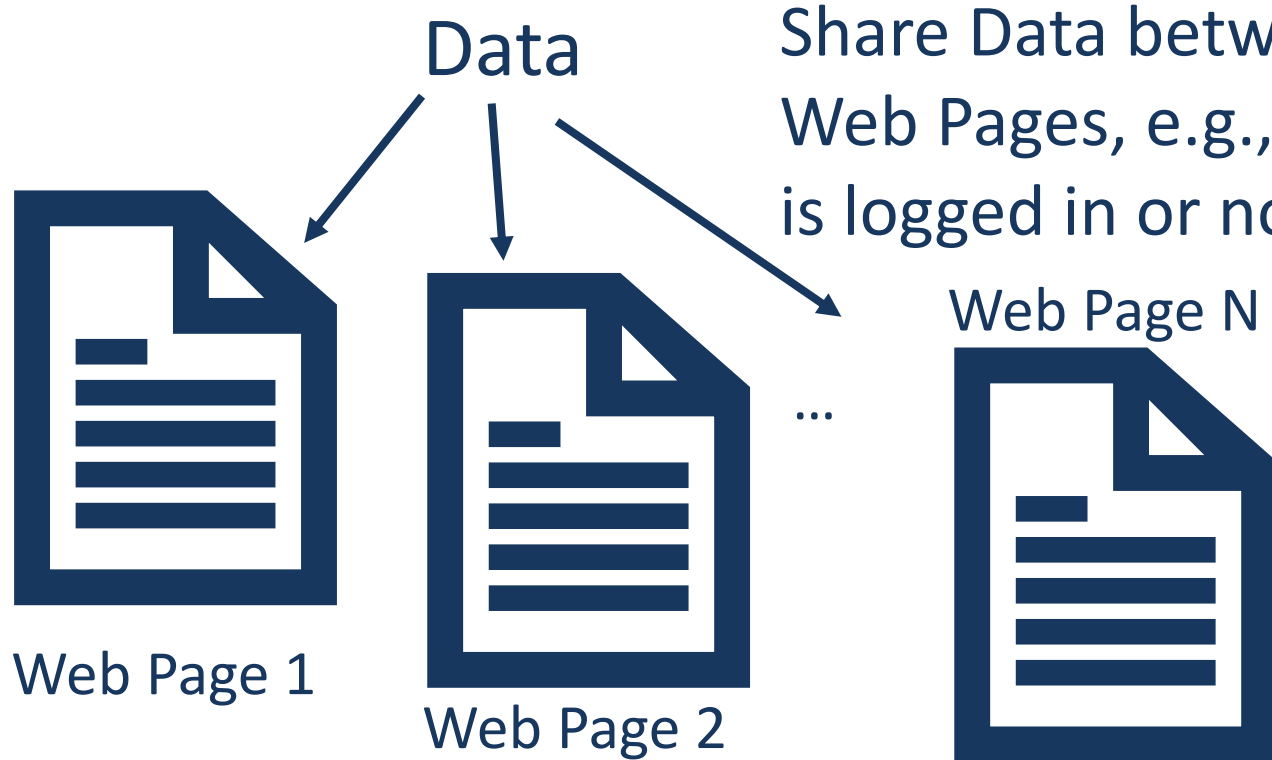


Share Data between
2 Web Pages

Web Page 2



ASP.NET Core | Session Data



Share Data between multiple Web Pages, e.g., if a person is logged in or not

ASP.NET Core

If you have never used ASP.NET Core, I suggest the following Videos:

- ASP.NET Core - Hello World
<https://youtu.be/lcQsWYgQXK4>
- ASP.NET Core – Introduction
<https://youtu.be/zkOtiBcwo8s>

ASP.NET Core Resources:

<https://halvorsen.blog/documents/programming/web/aspnet>

Session and app state in ASP.NET Core

- **HTTP is a stateless protocol.** Without taking additional steps, HTTP requests are independent messages that don't retain user values or app state
- We will see how we can use something called **Session variables** for sharing information between different web pages

State Management in ASP.NET Core

State can be stored using several approaches:

- Cookies
- **Session State**
- TempData
- Query String
- Hidden fields
- Etc.

Session State

- **Session state is a mechanism that enables you to store and retrieve user specific values temporarily.**
- **The default time is 20 minutes** (but can be configured if necessary)
- These values can be stored for the duration of the visitor's session on your site.
- **It can be used to share data between different web pages**
- It can, e.g., be used to store information if the user is logged on to the application or not and the UserName.

Session State in ASP.NET Core

Session management in ASP.NET Core is not enabled by default.

- You need to install the **Microsoft.AspNetCore.Session** NuGet Package in order to use Session state.
- You need to **enable Session State** in the **Startup.cs** file
- You need to include the Namespace using **Microsoft.AspNetCore.Http**;

Microsoft.AspNetCore.Session NuGet Package

The screenshot displays the Visual Studio interface with the NuGet Package Manager window open for the project 'SessionDataApp'. The 'Installed' tab is selected, and the package 'Microsoft.AspNetCore.Session' by Microsoft is highlighted with a red box. The package details on the right indicate it is installed at version 2.2.0. The Solution Explorer on the right shows the project structure, including 'Pages' and 'Startup.cs'.

NuGet Package Manager: SessionDataApp

Package source: nuget.org

Microsoft.AspNetCore.Session by Microsoft
ASP.NET Core session state middleware. v2.2.0

Installed: 2.2.0 **Uninstall**

Version: 2.2.0 **Update**

Options

Description
ASP.NET Core session state middleware.
This package was built from the source code at <https://github.com/aspnet/Session/tree/774079d60d29762ef7c8bba3f0fa06e73cb323f2>

Version: 2.2.0
Author(s): Microsoft
License: [View License](#)
Date published: Tuesday, December 4, 2018 (12/4/2018)
Project URL: <https://asp.net/>
Report Abuse: <https://www.nuget.org/packages/Microsoft.AspNetCore.Session/2.2.0/ReportAbuse>

Tags: sessionstate, aspnetcore, session

Dependencies

Solution Explorer

Solution 'SessionDataApp' (1 of 1)

- SessionDataApp
 - Connected Services
 - Dependencies
 - Properties
 - wwwroot
 - Pages
 - Shared
 - _ViewImports.cshtml
 - _ViewStart.cshtml
 - Error.cshtml
 - Index.cshtml
 - Page1.cshtml
 - Page2.cshtml
 - Page2.cshtml.cs
 - Privacy.cshtml
 - appsettings.json
 - Program.cs
 - Startup.cs

Properties

SessionDataApp General

File Name	SessionDataApp.csproj
Full Path	C:\Users\hansha\...
Project Folder	C:\Users\hansha\...
UserSecretsId	

UserSecretsId

Startup.cs

```
public void ConfigureServices(IServiceCollection services)
{
    ...
    services.AddSession();
    services.AddMemoryCache();
    ...
}
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{
    ...
    app.UseSession();
    ...
}
```

Microsoft.AspNetCore.Http Namespace

...

```
using Microsoft.AspNetCore.Http;
```

...

```
//Your C# Code goes here
```

Write to Session Variables in C#

```
string name;  
int age;  
  
HttpContext.Session.SetString("Name", name);  
  
HttpContext.Session.SetInt32("Age", age);
```

Read from Session Variables in C#

```
string name;  
int age;  
  
name = HttpContext.Session.GetString("Name");  
  
age = (Int32)HttpContext.Session.GetInt32("Age");
```

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Example

Share Data between 2 pages

Hans-Petter Halvorsen

Example Application

SessionDataApp Home Page1 Page2

Page1

Enter your Name:

Enter your Age:

Save

SessionDataApp Home Page1 Page2

Page2

Your Name is: Hans-Petter Halvorsen

Your Age is: 48

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Page1

SessionDataApp Home Page1 Page2

Page1

Enter your Name:

Enter your Age:

Save

Page1.cshtml

```
@page
@model SessionDataApp.Pages.Page1Model
@{
    ViewData["Title"] = "Page1";
}
```

```
<div>
    <h1>Page1</h1>

    <form method="post">

        Enter your Name:
        <br />
        <input name="Name" type="text" class="form-control input-lg" required />
        <br />

        Enter your Age:
        <br />
        <input name="Age" type="number" min="1" max="100" class="form-control input-lg" required />
        <br />

        <input id="SaveButton" type="submit" value="Save" class="btn btn-info">

    </form>

</div>
```

```
...
using Microsoft.AspNetCore.Http;

namespace SessionDataApp.Pages
{
    public class Page1Model : PageModel
    {
        string name;
        int age;

        public void OnGet()
        {
        }

        public void OnPost()
        {
            name = Request.Form["Name"];
            HttpContext.Session.SetString("Name", name);

            age = Convert.ToInt32(Request.Form["Age"]);
            HttpContext.Session.SetInt32("Age", age);
        }
    }
}
```

Page1.cshtml.cs

Page2

SessionDataApp Home Page1 Page2

Page2

Your Name is: Hans-Petter Halvorsen

Your Age is: 48

...

```
using Microsoft.AspNetCore.Http;
```

```
namespace SessionDataApp.Pages
```

```
{
```

```
    public class Page2Model : PageModel
```

```
    {
```

```
        public string name;
```

```
        public int age;
```

```
        public void OnGet()
```

```
        {
```

```
            if (HttpContext.Session.GetString("Name") != null)
```

```
                name = HttpContext.Session.GetString("Name");
```

```
            if (HttpContext.Session.GetInt32("Age") != null)
```

```
                age = (Int32)HttpContext.Session.GetInt32("Age");
```

```
        }
```

```
    }
```

```
}
```

Page2.cshtml.cs

```
@page  
@model SessionDataApp.Pages.Page2Model  
@{  
    ViewData["Title"] = "Page2";  
}
```

Page2.cshtml

```
<div>  
    <h1>Page2</h1>  
    <p>  
        Your Name is: @Model.name  
    </p>  
    <p>  
        Your Age is: @Model.age  
    </p>  
</div>
```

Resources

- <https://docs.microsoft.com/en-us/aspnet/core/fundamentals/app-state>
- <https://www.learnrazorpages.com/razor-pages/session-state>

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