

# #SharePointProblems - How to get current user in ASP.NET Core? (https://www.koskila.net/)

Solutions are worthless unless shared! Antti K. Koskela's Personal Professional Blog

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# How to get current user in ASP.NET Core?

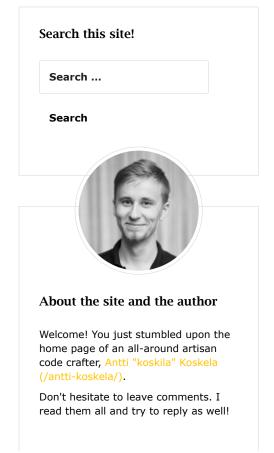
March 28, 2019 (https://www.koskila.net/how-to-get-current-user-in-asp-net-core/) / Antti K. Koskela (https://www.koskila.net/author/koskila/) / DevTips (https://www.koskila.net/category/tech/development-tips-and-tricks/), Tech (https://www.koskila.net/category/tech/)

This post was most recently updated on July 26th, 2019.

READING TIME: 2 MINUTES.

This post describes how to get the currently logged in user using ASP.NET Core. This is compared with how it's done in .NET Framework.

## **Background**



In .NET Core, a lot of things are done a bit differently. That's what I've been learning building more and more Table of Contents **Menu** 



More information about me on the About -section (/antti-koskela/)!

stuff with it, instead of good old .NET Framework. The

learning curve is definitely there, but it's not that bad - most of the things work in a similar fashion, but a huge number of details are different.

In .NET Framework, you'd do this by accessing HttpContext.Current.User and its properties (see below for an example), in .NET Core this is handled via dependency injection.

```
var username = HttpContext.Current.User.Identity.Name;
```

You can't do this in .NET Core. How to do it there, then?

### Solution

First, you add this in your Startup.cs, in ConfigureServices:

```
public void ConfigureServices(IServiceCollection services)
     services.AddSingleton<IHttpContextAccessor, HttpContextAccessor>();
}
```

Then you add these pieces of code to your Controller, database context or other class:

- 1. Private variable to hold the injected reference to our **HttpContextAccessor**
- 2. New variable with the correct type (or interface) to the class constructor (like IHttpContextAccessor httpContextAccessor below)
- 3. Assignment from the injected variable (in the constructor) to the hidden private variable (to make the reference available outside the constructor)

```
HttpContextAccessor _httpContextAccessor;
DbContext(DbContextOptions<ApplicationDbContext> options, IHttpContextAccessor httpContextAccessor)
(options)
ssor = httpContextAccessor;
```

#### Solutions are worthless unless shared!

Check out the tech & programming tips, often about ASP.NET MVC, Entity Framework, Microsoft SharePoint Server & Online, Azure, Active Directory, Office 365 or other parts of the Microsoft's stack.

I've been developing both classic server stuff, but also (and actually especially) more cloud-oriented stuff in the past 10 years.

There's an occasional post about software issues other than on Microsoft's stack, and a rare post about hardware, too! And sometimes I might post about my sessions at different community events, or experiences as an expat living in a foreign country (in 2017, that country was the USA, in 2018 & 2019 Canada).

And since I'm hosting this site on WordPress, and boy does WordPress experience a lot of issues, I might also post something about solving those cases. Like PHP compatibility issues...

#### Support my blog and try a better browser!



Tired of using Chrome? Try Brave (https://brave.com/kos048), it's:

For our little example call further below, you'll need to add a reference to Claims like this:	1. Harder 2. Better
	3. Faster
using System.Security.Claims;	4. Stronger!
And finally, you call it like this – for example, to get the reference to the user, and grab their id:	(It's a referral link, so I get some delicious cryptocoins if you end up liking the browser enough to use it!  What a cool way to support my blog too!
<pre>var userId = _httpContextAccessor.HttpContext.User.FindFirst(ClaimTypes.NameIdentifier).Value;</pre>	(00: ⑤)

(PS. If the embedded code blocks break again, sorry! Ping me in the comments below and I'll fix them from the database. WordPress' new editor, Gutenberg, doesn't have a switch to disable autocompleting html, so it tries to "fix" what it thinks is html – but is actually a type definition in C# or similar. See more info here:

https://github.com/WordPress/gutenberg/issues/14092 (https://github.com/WordPress/gutenberg/issues/14092) )

And with this, you should be good! :)

(https://twitter.com/intent/tweet?url=https://www.koskila.net/how-to-get-current-user-in-asp-net-core/&via=koskila&text=How to get current user in ASP.NET Core? &hashtags=ASPNETCore%2CCSharp%2CEFcore&ref\_src=twsrc%5Etfw)

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# Antti K. Koskela (Https://Www.Koskila.Net/Antti-Koskela/)



Developer / Architect / Consultant at Koskila / Valo Solutions Ltd. / Norppandalotti Software Co / Alter - Experience Ideas Ltd. (https://www.koskila.net/antti-koskela/)

ww.koskil a.net/antt ikoskela/)

Antti Koskela is a proud digital native nomadic millennial full stack developer (is that enough funny buzzwords? That's definitely enough funny buzzwords!), who works as a Solutions Architect for Valo Intranet, the product that will make you fall in love with your intranet. Working with the global partner network, he's responsible for the success of Valo deployments happening all around the world.

He's been a developer from 2004 (starting with PHP and Java), and he's been bending and twisting SharePoint into different shapes since MOSS. Nowadays he's not only working on SharePoint, but also on .NET projects, Azure, Office 365 and a lot of other stuff.

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September 10, 2019

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# August 27, 2019

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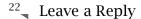
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Menu **≡** 

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Guest

Alan

< 0

Hi Antti,

Thanks for taking the time to post, but this isn't working for me at all. The 'FindFirst' method is returning NULL. When I inspect the \_httpContextAccessor object, it doesn't appear to have a user information either.

Do I need to run my app under IIS (full - not express)? Do I need to try this with IE or Edge instead of Google Chrome?

I'm currently using ASP.net Core 2.2 with Visual Studio 2019 Community and Chrome.

Thanks, Alan

Reply Reply

⑤ 1 month ago

∧

#### Antti K. Koskela (https://www.koskila.net/antti-koskela/)



://ww w.kos kila.ne kila/)

Author

Hi Alan,

My dev configuration is Chrome or Brave with IIS Express (and the browser shouldn't make any difference anyway), so toolwise you should be good. What's the authentication method you have configured? Does registering a new user and accessing the site as them change the situation at all?

I've applied the same configuration for .NET Core 2.1, 2.2 and 3.0 (preview 7) projects, so it should be functional.

**+** 0 **-**

Reply

⑤ 1 month ago

∧

Alan



Hi Antti,

Guest

Thanks for getting back to me so quickly.

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So, I was able to get the user info, by just enabling Windows Authentication in my launch settings. I found that I didn't need to apply your soluther label.



However, I realize that this will only work in IIS / IIS Express. I plan to host my web server and ASP.Net Core app on Nginx. I'm assuming that this is not going to get me access to the Windows ID?

So, even assuming I deploy to an IIS Server instead. Is there anyway to get my users ID without having them log in the application (and having to put the IIS Server on our AD domain)?

Thanks, Alan

**+** 1 **−** Reply

⑤ 1 month ago

∧

#### Antti K. Koskela (https://www.koskila.net/antti-koskela/)



(https ://ww w.kos kila.ne t/auth or/kos kila/) Hi Alan, while I have never developed an .NET Core application with Windows Authentication, I believe you can select it as one of the option when first creating the project, and with the out-of-the-box configuration (or after replicating it in your existing project), the method I outlined in the article should give you access to the local AD identity.

Author

I must admit, that I mostly play around with OAuth or AAD, so my knowledge on applications hosted in the local intranet (I suppose that's the reason you're going for Windows Authentication?) is limited.

However, with AAD, your users should be able to use SSO and their "windows accounts" (this all, of course, depends on your AAD configuration) and only log-in occasionally. It's pretty much the same experience you get with SharePoint Online or other Office/Microsoft 365 services – log in on Monday, and you're good until Friday!



① 1 month ago 🔥

Alan



Antti,

Guest

So, at this point, I'm a little confused. I thought that the only way I could access the local windows ID (in my case, the AD identity), was to enable Windows Authentication. So, you're saying that I should be able to access the local AD identity, using the code your outlined solution? But this requires IIS or IIS Express to be used at the Web Server, correct? Also, does my Web Server need to be on the same domain as my users? If not, does the Web Server need to be on any domain at all?

I know that this is a big ask, but I can't get the solution you outline to work. As I mentioned before,

"FindFirst(ClaimTypes.NameIdentifier)" is returning null, and a visual inspection of the HttpContextAccessor object seems to confirm that my Windows User info is not being populated. Is it possible that you could just post a very basic Visual Studio

ASP.Net Core solution that accesses or displays the Windows User info? Perhaps, it just a problem with the way I'm implement U your solution.



Thanks, Alan **+** 0 **-**Reply ① 1 month ago John Chandler < ∅ Hi Alan, Guest I am having the very same issue as you are. I am using VS 2017 ASP.Net Core 2.2. I have: "windowsAuthentication": true in launchSettings I have tried several different solutions and they all give me a null reference error. I'm still researching and will post if I find a working solution for me. Please do the same! :) **+** 0 **-**() 1 month ago Reply Antti K. Koskela (https://www.koskila.net/antti-koskela/) < ∅ (https://ww Thanks for chiming in, John! Excited to hear how it goes for you w.kos :) kila.ne t/auth **+** 0 **-**Reply ① 1 month ago or/kos kila/) Author Alan < ∅ John, Guest See point #4 on the post I just made to Annti (at approx. 10:50 CST, 8/20/2019). Alan Reply ① 1 month ago Alan < ∅ Correction - please look at point #5 from last post to Annti (at 11:15 CST, 8/20/2019). Guest **+** 0 **-**① 1 month ago Reply John Chandler < ∅

I found a working solution!:

Suest string userName =
\_httpContextAccessor.HttpContext.User.Identity.Name;Menu =
https://forums.asp.net/t/2146004.aspx?

ittps://rorums.asp.net/t/2146004.aspx? Get+Windows+User+Name+ASP+net+Core+2+1 https://forums.asp.net/t/2146004.aspx? Get+Windows+User+Name+ASP+net+Core+2+1)

**+** 0 **-** Reply

1 month ago

< €

Antti K. Koskela (https://www.koskila.net/antti-koskela/)

(https ://ww w.kos kila.ne t/auth or/kos kila/)

Author

Hi Alan,

As long as you've configured the Windows Authentication for your project, I don't see why my code shouldn't return the identity. However, Like I said, I don't really work with Windows Authentication, so I don't really have that code readily available – apologies for that!

I do know, that not all of the Claims might be populated – depends on the authentication method. If you take a closer look at the Identity property, or the Claims collection, do they contain any data for you?



① 1 month ago

Alan



Hi Antti,

Guest

Thanks again for your continued replies (as well as everyone else). I appreciate your patience, but please bare with me as I clarify a few things, because it seems like I haven't been clear as to what I need:

- 1) All of the users of my ASP.Net Core application will be Windows users on the same AD domain.
- I'm trying to find a way to obtain their Windows ID in the ASP.Net Core application without relying on the Windows Authentication feature.
- 3) The main reason that I don't want to rely on Windows Authentication is that, based on my understanding of how this features works, I would be required to put the IIS Web Server on the Domain This is an administrative hurdle, I would rather avoid if I could.
- 4) If I enable Windows Authentication on my app, then I can easily obtain the Windows ID, either running on IIS express or IIS on the same machine that I'm testing the application from in a browser. I've verified this behavior from two different Windows PC's, one on a domain, and one NOT on a domain.

All I need to do is (in VS Community 2019) create a new ASP.Net Core Web application, selecting the Windows Authentication option. (When running under IIS, you also need to enable

Windows Authentication on the IIS Server). I don't need to implement your code at all.



This is a code snippet from the pre-built "\_Layout.cshtml" that references that displayes user ID:

Hello, @User.Identity.Name!

- 5) At this point, I still don't understand whether or not any sort of Authentication must be implemented in order to implement your solution, or whether or not your solution requires IIS or IIS Express. All I know is that I can't get it to work for me. When I look at the Claims collection, when I try to implement your solution, I think I have one or two records and most of the fields are null.
- 6) I'm again requesting a sample project you might have where your solution works. As I mentioned on point #2. I'm specifically looking for a solution that doesn't require me to use any Authentication at all.

Thanks, Alan



1 month ago

Alan



Antti,

Guest

Thanks so much for your continued replies. Thank to everyone, who have recently replied as well:)

I appreciate your continued patience. Please bare with my as I clarify a few points. It seems like I haven't been clear enough regarding my needs.

- 1) All of the users of the ASP.Net Core application are Windows users on the same AD Domain, on my company's network. There will be no public access to the application
- 2) I need to obtain Windows ID of anyone using the application.
- 3) I want to implement a solution that DOES NOT require Windows Authentication ( or any Authentication at all).
- 4) I'm trying to avoid using Windows Authentication as, based on my understanding of the Windows Authentication feature, I would also be required to put my application's IIS server on the domain as well. Otherwise, the Authentication won't work properly.

Putting this server on the domain is an administrative hurdle, I would very much like to avoid.

5) If I enable Windows Authentication on my app, then I can easily obtain the Windows ID, either running on IIS express or IIS on the same machine that I'm testing the application from in a browser. I've verified this behavior from two different Windows PC's, one on a domain, and one NOT on a domain.

All I need to do is (in VS Community 2019) create a new ASP.Net Core Web application, selecting the Windows Authentice DU option. (When running under IIS, you also need to enable

Windows Authentication on the IIS Server).

I don't need to implement your code at all.

This is a code snippet from the pre-built "\_Layout.cshtml" that references that displays user ID:

Hello, @User.Identity.Name!

6) I've tried implementing your code and I can't get it to work. When I look at the Claims property, I think I'm only getting one or two records, and most of the fields are null, including the user name.

I still don't understand whether or not your solution requires any implemented Authentication framework, or whether or not IIS / IIS Express is required.

7) So, I'll make another request for some sample shell project you have where your able to obtain the Windows User ID. As I mentioned in point 3, I'm NOT interested in a solution that requires Windows Authentication.

Thanks,

Alan



① 1 month ago

Alan



Sorry for the double-post :) I thought my first post didn't take.

Guest



() 1 month ago

Antti K. Koskela (https://www.koskila.net/antti-koskela/)



(https ://ww w.kos kila.ne t/auth or/kos kila/)

Author

Hi Alan,

Apologies for the slow response – moving between continents messed up my schedules pretty badly!

Now that I finally had to moment to look into this, could you verify if I understood your situation correctly:

- You'd like to avoid using Windows Authentication
- You'd like to use Windows identities
- You'd like to have your users not logging in at all
- You'd like to use the identity of the user currently logged into Windows on the machine accessing the site.

Is this correct? If so, my current understanding is that Windows Authentication is the way to go. I'm sure there are workarounds – like writing a proxy that'll somehow handle the authentication, and capture the identity and pass it onwards to your site as a parameter or something.

IIRC, User.Identity shouldn't be available for recent versions of .NET Core anymore. Before 1.0 you could definitely do



var userId = User.Identity.getUserId();

As long as you referenced:

using Microsoft.AspNet.Identity; using System.Security.Claims;

**+** 0 **-** Reply

① 29 days ago

Alan Farkas

< ∅

Antti,

Guest

No worries. Thanks for your reply. So, yes. That is all correct. You accurately re-stated my situation:)

Since my last email, I have managed to get the use of a server that's already on our domain. I installed IIS and deployed my app to it. The integrated Windows authentication is working perfectly (in Chrome, ID, but not Firefox) up to a point.

So, if I connect to the web app using the server name (ex. http://server1:5100 (http://server1:5100)) or use a domain alias for the server (ex. http://myapp (http://myapp)), the user's Window ID get's passed thru just fine. However, if I connect to the web app using a FQDN (ex. http://myapp.domain.local (http://myapp.domain.local)), then I'm presented with a login box that requires me to enter my credentials (or any other valid domain credentials). Once the credentials are entered, then the app picks up the user ID that was used to login.

It doesn't look like there's an easy way around this. Based on some obscure blog posts I found, I believe that this is "expected" functionality. My understanding is that IE (and apparently Chrome) see the host name URLs (ex. http://server1 (http://server1)) as a local intranet address, but any URL with a period in it (ex. http://myapp.domain.local (http://myapp.domain.local)) is automatically seen as a public URL. As a security constraint, the browsers will not automatically pass the integrated Windows info to a public URL.

BTW, the login prompting always occurs under Firefox, regardless of which URL I use for the app. This isn't really an issue, though, as our users will be instructed to use either IE or Chrome.

Alan

**+** 0 **−** Reply

© 28 days ago

Andrew Barzyk



Sorry, as many comments start... I'm new to EF... I added the code to my DB Context and am getting this error:

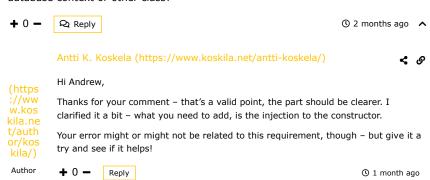
Guest

InvalidOperationException: The DbContext of type 'AppDbContext' cannot be

pooled because it does not have a single public constructor accepting a single parameter of type DbContextOptions.

Menu

Any chance you could explain in more detail how you "add this to your Controller, database context or other class?"



#### Amit Sadashiv Patil



Guest

When I am doing the above procedure in one of my controller class, it works. I am able to see the username. But when I do this procedure in my ApplicationDbContext (InterviewSchedulerContext class in my case) class, the above-mentioned solution does not work. I am getting "Microsoft.AspNetCore.Http.IHttpContextAccessor.HttpContext.get returned null" error.

Error details:

System.NullReferenceException

HResult=0x80004003

Message=Object reference not set to an instance of an object.

Source=InterviewScheduler

StackTrace:

at

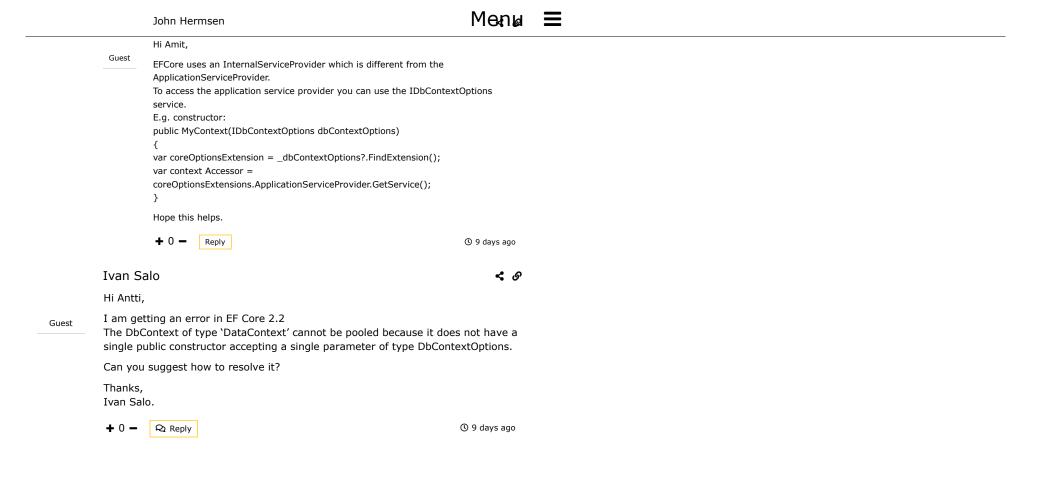
InterviewScheduler.Entities.InterviewSchedulerContext..ctor(DbContextOptions`1 options, IHttpContextAccessor httpContextAccessor) in C:\Users\amipatil\source\repos\InterviewScheduler 1857

83326\InterviewScheduler\Entities\InterviewSchedulerContext.cs:line 22

Could you help me out?

Thank you in advance.





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#### Find me IRL

I'm occasionally at different SharePoint-related events (check out where I'm speaking (https://www.koskila.net/tag/sessions/)), and currently live between Montréal and Finland. During 2017 you could've run into me in the US of A (https://www.koskila.net/category/blog-posts/finno-american-culture-relations/) as well (I was living in Wisconsin)!

Also, follow my blog with Bloglovin (https://www.bloglovin.com/blog/19895125/?claim=q5mr76grgxk)!

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#### Koskila.net has been going strong since 2009 - way before I knew anything about .NET!:)

Back in the day I just thought .net is cooler than .fi or .com. And it is!

Want to see old versions of the site? Check them out on Archive.org (https://web.archive.org/web/20100708191230/https://www.koskila.net/)!