[Course Overview](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live)

[Course Overview](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live)

[[Autogenerated] Hi, everyone. My name is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=5.36) [Steve Smith, a k a r Dallas and welcome to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=6.75) [my course C Sharp designed patterns](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=9.83) [adapter. I'm an experienced dot net](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=12.57) [developer, architect and trainer. My on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=15.78) [site workshops and plural psych courses](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=18.8) [have helped thousands of developers and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=21.15) [teams right. Better code faster. You'll](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=23.08) [find me online under the name. Our Dallas](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=26.44) [designed patterns have fascinated me for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=30.04) [years. They're like individual tools you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=31.84) [can add to your tool kit. As a software](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=34.58) [developer, they don't take long to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=36.71) [introduce, but they can take a lot of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=38.87) [practice to master. In this course, we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=40.88) [going to explore the adapter design](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=44.58) [pattern, one of my favorites for its](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=46.43) [overall usefulness. Some of the major](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=48.46) [topics that we will cover include what](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=51.35) [problem is the adapter pattern meant to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=54.2) [solve what software designed principles](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=55.95) [apply to this pattern? How can you apply](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=58.84) [this pattern to re factor and improve your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=61.54) [existing coat and what other design](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=63.99) [patterns are similar to or frequently used](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=66.41) [with the adapter pattern? By the end of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=68.96) [this course, you'll be able to recognize](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=72.15) [situations where the adapter pattern makes](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=74.28) [sense and you'll be able to apply it to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=76.65) [your code with confidence. I hope you'll](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=78.85) [join me and learning about the adapter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=82.23) [design pattern for C Sharp, and I hope](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=83.75) [you'll continue exploring other design patterns as well here on plural site.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=b44cdfdc-0c4c-4b25-986b-6b7efec7a48b&clip=0&mode=live&start=85.94)

[Applying the Adapter Pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live)

[Objectives](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live)

[[Autogenerated] Hi there. My name is Steve](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=1.14) [Smith, a k a r Dallas. You can find me](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=2.55) [online at our Dallas dot com or at our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=5.25) [Dallas on various social media networks](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=8.01) [and YouTube. I also record short developer](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=10.1) [tips on my podcast weakly dev tips dot](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=12.5) [com. In this short course, we're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=15.08) [introduce and learn to apply the adapter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=18.19) [pattern. The adopter pattern is one of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=20.49) [most popular and useful design patterns,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=23.06) [and you'll be ready to start using it for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=25.2) [your own applications right after you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=26.98) [finish this course, let's get started. In](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=28.97) [this course, you'll learn what kinds of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=34.91) [problems Theodore her pattern is designed](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=36.73) [to solve. You'll see how it's structured](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=38.75) [and then how it fits into your existing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=41.88) [code base. You'll see how to apply this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=43.79) [pattern in real code through a number of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=46.29) [different examples. And when you're done,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=48.28) [you'll also be able to recognize several](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=51.01) [related patterns, like the decorator proxy and Bridge](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=0&mode=live&start=52.84)

[The Problem](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live)

[[Autogenerated] the key problem the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=0.44) [adapter pattern seeks to address is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=1.46) [incompatible interfaces. You have some](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=3.69) [client code that needs to use one or more](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=6.59) [service providers, and the interface the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=9.27) [client is set up to call doesn't match the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=11.53) [one the service provider defines. This](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=14.16) [isn't the first time that I've taught a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=17.68) [course on the adapter pattern, and no](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=19.01) [coverage of the adapter pattern would be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=21.3) [complete without the required comparison](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=22.95) [to Rhea World adapters for electrical](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=25.54) [outlets. Electrical outlets are real world](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=28.01) [service providers, providing the service](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=31.1) [of electrical power in the United States](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=33.67) [out. Let's have a specific interface, like](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=36.86) [the one shown on the left. Other countries](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=39.09) [have their own interfaces and often](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=41.8) [provide different mounts of voltage as](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=43.81) [well. Appliances typically have a single](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=45.44) [plug designed to work with a specific](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=49.61) [interface, and they cannot use](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=51.91) [incompatible outlets by themselves. For](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=53.84) [this scenario, adapters are available to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=56.86) [convert from an appliance designed for a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=59.73) [European outlet to be able to plug into a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=62.44) [U. S. Outlet or vice versa. Because there](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=65.12) [are many different interfaces for power](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=68.86) [outlets around the world, there are many](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=70.68) [different adapters available. Adapters](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=72.82) [convert the interface of one class into an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=76.25) [interface a client expects. That's it.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=79.34) [That's their whole reason for existence in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=82.69) [software adapters, or sometimes referred](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=85.64) [to as rappers because they wrap an incompatible object in a compatible one.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=1&mode=live&start=88.11)

[Demo: The Problem](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live)

[[Autogenerated] Let's look at some code](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=1.94) [that demonstrates the need for an adaptor](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=2.95) [because it needs to work with several](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=5.52) [incompatible interfaces. Our basic client](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=7.74) [is a Star Wars character display service](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=12.09) [in its current state. It just reads the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=15.14) [characters from a Jason file from the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=17.13) [local disc, formats them a little bit, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=19.31) [then it displays them. There's a test](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=21.82) [runner, and this test runner will call the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=24.67) [service, and then I'll put the result](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=28.01) [here. You can see the result from the file](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=32.54) [includes these five characters. Now we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=34.64) [want to update the service so that it can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=38.77) [support not just a file, but it can also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=40.96) [call the Star Wars a P I, an online](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=43.31) [service that will return back a list of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=46.08) [characters to make this change. We've](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=48.12) [modified our method so that it can accept](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=51.62) [a character source specifying whether it's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=53.85) [going to be reading from the file as it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=56.49) [did before or from the A P I. You can see](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=58.35) [that we have to have some if logic, in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=62.4) [order to change the way that we would](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=64.42) [interact with the file based version of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=66.4) [getting this information or with the A P I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=68.66) [based version. Once we have the character](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=71.82) [data, the result is the same. We're still](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=75.3) [going to just format it and print it out.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=77.63) [And now we can have two different tests](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=80.39) [here, though, demonstrate that it works](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=82.22) [and you can see if we read from the A P I.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=84.94) [Can we get a slightly different set of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=87.57) [characters. Our problem, though, just to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=88.94) [be clear, is that this is not sustainable](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=93.09) [code. If we had another different type of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=96.36) [source, we're gonna have to change this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=99.32) [coat again. And we have a lot of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=101.33) [duplication here in terms of how we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=103.11) [going in. Fetching the list of people also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=105.62) [were not really following the solid](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=108.21) [principles, which you can learn more about](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=109.6) [in my courses on plural site on solid.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=111.18) [Specifically, this service is doing way](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=113.73) [too much. At this point. It's not](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=116.4) [following the single responsibility](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=117.81) [principle, and it's also not following the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=119.35) [open closed principle, because any time we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=121.28) [want to change where it's getting its data](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=123.83) [from, we have to go in and actually change](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=126.42) [this method. Inside this class. It's not](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=128.6) [closed for modification when we try and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=131.18) [extend it. So let's think about how we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=133.74) [approach solving this problem and some principles that might apply](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=2&mode=live&start=136.38)

[Related Principles](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live)

[[Autogenerated] we can think about certain](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=0.74) [principles that suggest when we might use](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=1.95) [an adapter as the solution to certain](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=4.58) [kinds of interface incompatibility](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=7.11) [problems. We can look to replace](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=9.34) [conditional logic with Polymorphism, which](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=12.27) [is a specific re factory, by establishing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=14.72) [a common interface for several related](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=17.63) [operations. I discussed this for factoring](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=20.01) [in detail in my room factoring courses,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=22.96) [for instance, in the code we just saw. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=26.4) [conditional logic could all be replaced if](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=29.01) [we were able to call a method to get](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=31.54) [people from a common abstraction. Such](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=33.72) [code would also better follow solid](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=37.11) [principles. We would also like our code to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=39.27) [be loosely coupled to third party](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=42.53) [dependencies like specific files or AP](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=44.48) [eyes. That means we should be able to plug](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=47.26) [in different service providers without](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=50.26) [having to perform surgery on our code.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=52.26) [And, of course, we'd like our code to be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=55.5) [testable. This goes hand in hand with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=57.59) [loose coupling, since tight coupling to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=60.13) [infrastructure concerns makes code very](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=62.26) [difficult to unit. Test unit tests need to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=64.7) [be able to run without infrastructure.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=67.66) [Being present in the initial code we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=69.49) [looking at simply does not work. If](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=71.71) [there's not a Jason file or the Star Wars,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=74.07) [a P I present. I've mentioned solid. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=76.57) [let's consider a few of these principles](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=80.16) [as well. If we're to follow the single](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=81.8) [responsibility principle, we wanna have](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=84.13) [small focus types that only do one thing.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=86.41) [These types should have few public methods](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=90.14) [and properties and thus should follow the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=92.5) [interface segregation principle. When you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=94.91) [follow these two principles, it makes it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=97.87) [really easy to create adapters because](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=99.92) [they're going to be small and focused. If](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=102.19) [you don't follow these two principals,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=104.84) [you're likely to break the list cough](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=106.57) [substitution principle because you might](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=108.31) [decide not to fully implement Ah, large](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=110.47) [interface. We'd also like to be able to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=112.65) [modify our client codes behavior, how it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=115.75) [gets data from its service providers](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=118.42) [without having to change its code. This is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=120.24) [an example of the open closed principle.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=123.1) [We want our list characters method to be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=126.34) [open to extension of its behavior in terms](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=128.69) [of being able to get data from any number](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=131.29) [of sources but close to modification, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=133.34) [shouldn't need to change its actual source good to achieve this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=3&mode=live&start=137.21)

[Two Kinds of Adapters](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live)

[[Autogenerated] they're actually a couple](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=0.28) [of kinds of adapters. Let's talk about](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=1.6) [them before we see how to apply them to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=4.34) [the code we've been reviewing. The two](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=6.14) [kinds of adapter patterns are object](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=10.6) [adapters and class and afters. The big](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=13.46) [difference between them is how they](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=16.56) [reference the class that they're rapping](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=18.31) [or adapting. Object adapters, holding](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=20.35) [instance of the adoptee class vacant.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=24.05) [Implement an adapter interface or inherit](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=27.47) [from the adapter. Type in the use](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=30.19) [composition and single inheritance](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=33.58) [languages like C Sharp and Java on Lee](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=36.34) [support single inheritance, meaning you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=39) [can't define a class that inherits from](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=41.01) [more than one other class class adapters](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=43.1) [inherit from the adoptees and the adapter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=47.56) [type. Thus they require multiple](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=50.47) [inheritance. One variation of classic](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=53.79) [after that doesn't require multiple class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=58.58) [inheritance. Simply implements the adapter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=60.75) [interface. This variation can be used in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=63.59) [languages like C Sharp and Java. In C](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=67.1) [sharp, you'll mostly use object adapters.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=72.32) [The reason is that C Sharp doesn't support](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=75.38) [multiple inheritance. In a design](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=77.69) [principle of C. Sharp is to prefer](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=79.73) [composition over inheritance. In the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=82.1) [diagram shown here, the client is able to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=84.95) [work with one or more incompatible](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=87.52) [classes. The adoptee, by referencing and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=89.59) [calling methods on an adapter.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=92.95) [Abstraction. Ah specific adapter is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=95.01) [created for each specific adoptee. In our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=98.35) [example, we would have a different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=102.06) [specific adapter for reading Star Wars](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=103.76) [characters from a file versus from an a p](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=106) [i n point. Another option is to use a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=108.8) [class, and after in this case, the client](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=112.13) [is calling a target classes particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=115.23) [method, but it wants to use a different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=117.16) [implementation now. The adoptees](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=119.29) [incompatible method the adopter class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=121.72) [inherits from both classes and overrides](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=125.11) [the some method call so that instead of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=128.1) [doing what it did in a target class, it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=130.24) [now calls the incompatible method and does](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=132.41) [any work necessary to make it compatible](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=134.81) [with the some method interface. We can't](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=137.4) [use this approach in C Sharp because we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=140.59) [can't inherit from to implementation](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=142.73) [classes. However, what we can do in C](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=144.59) [Sharp is implement the target interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=148.91) [the client was calling. And rather than](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=151.27) [holding onto an instance of the concrete a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=153.17) [daft DIY type we can inherit from it once](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=155.45) [again. The some method implementation in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=158.91) [the adapter calls the incompatible method](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=161.49) [and does any necessary work to modify it to work with the some method interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=4&mode=live&start=164.21)

[Demo: Applying the Adapter Pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live)

[[Autogenerated] let's return to our code](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=2.14) [and look at how to apply the adapter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=3.39) [pattern to improve it. Along the way,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=5.34) [we'll perform a few simple re factoring](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=7.93) [zzzz. Well, most of the time when you're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=9.8) [going to apply the adapter pattern, you're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=12.4) [going to already be working with a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=14.42) [particular interface to an existing class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=16.32) [implementation. In our example. So far, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=18.57) [have two different ways of performing some](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=21.63) [work, but we haven't actually respected](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=23.28) [them out into classes yet. So the first](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=25.52) [step is to do that. We're gonna take our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=27.91) [two different if statements here, one](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=30.58) [using a file and the other one talking to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=32.31) [the A p I. And we're going to break those](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=34.42) [out into two different class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=36.81) [implementations. Once we've done that, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=38.33) [have a character file source class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=40.66) [implementation, which has a get characters](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=43.28) [from file method that takes in a file](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=45.29) [path. And then we have a Star Wars, a p I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=48.09) [source which has a get characters method.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=51.2) [Now, I have intentionally given these two](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=53.98) [methods different names and signatures so](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=55.77) [that we can apply the adapter pattern to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=58.16) [them. And this is pretty common when](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=60.24) [you're looking at how you're gonna get](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=62.2) [data from somewhere, or how you're going](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=63.43) [to use a service from an implementation](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=65.02) [that they won't have exactly the same](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=67.52) [interface. And that's where the adapter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=69.47) [pattern really shines. Once we have the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=71.12) [functionality in two different classes,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=73.85) [the next step is to identify an interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=76.04) [that we can use commonly across both of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=79) [these classes. By looking at with the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=81.34) [return in this case the people variable,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=84.02) [which is a list of person, we can see how](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=87.03) [it's being used. And in this particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=89.81) [class, the client, the only thing we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=92.4) [using people for is a four each leap. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=94.66) [we really just need to be able to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=97.58) [enumerate over this collection. With that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=99.06) [in mind, when we think about the interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=101.35) [we want, we want to use an interface that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=103.02) [requires the least amount of information](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=105.55) [in order to be able to execute the method.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=108.09) [For instance, if we take the interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=110.2) [from the characters from file call that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=112.18) [requires a file path, we won't really be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=115.2) [able to use that interface when we call](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=117.6) [the FBI. I mean, we could, but then we'd](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=120.07) [have to pass in some file path that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=122.1) [wouldn't be used in order to fetch this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=124.04) [list of characters from an online A P I.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=126.26) [That doesn't make any sense. Instead,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=128.69) [we're gonna create a simpler interface,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=130.93) [and we're gonna start with something like](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=134.14) [this. This I character source adapter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=135.46) [simply has one method get characters and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=139.02) [it returns. An innumerable of person does](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=142.25) [not require any other information. Now, as](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=144.82) [we look at this, the one change that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=148.75) [might want to make is to make this a sink](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=150.68) [because all of the other calls that were](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=153.6) [making are actually a wearable. And so](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=155.85) [it's not that we're actually returning](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=158.3) [back. A list of person were actually](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=159.87) [returning back, a task of list of person.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=161.89) [And so, for our needs, we can convert this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=165.04) [into a task of innumerable of person and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=167.21) [get the same type of behavior. Now that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=170.16) [we've introduced the interface, the target](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=173.85) [that we're going to use for our service,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=176.5) [we can re factor it to call this interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=178.68) [instead of calling the implementation](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=181.34) [directly, and then we'll be almost](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=182.97) [complete with how we're going to apply the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=185.21) [adapter pattern. The next you're factoring](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=187.86) [is to create an instance of the eye](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=190.92) [character source adapter and then assign](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=193.54) [that to either a character file source](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=196.32) [adapter or a Star Wars, a P I character](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=198.91) [source it after noticed that we've taken](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=201.79) [the vile path argument that used to be on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=204.86) [the get characters method, and we've moved](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=207.85) [it as a constructor argument into the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=209.92) [adapter itself. Noticed that if statement](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=212.26) [has changed where before it was actually](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=214.9) [responsible for loading the people](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=217.39) [variable. Now all it does is create an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=219.65) [instance of the character source type. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=222.48) [actual call to load the people is only](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=224.84) [performed once, and it's polymorphic now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=227.49) [because it doesn't care which type of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=230.06) [adapter we're using. We can actually](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=231.66) [replace this whole if statement with a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=234.4) [factory, which we can do in a future where](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=236.82) [factory. Let's look at the implementation.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=238.9) [We'll start with this Star Wars, a p I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=241.29) [character source adaptor, because it's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=242.95) [going to be the simpler one. Here at the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=244.9) [top, you can see the actual client](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=247.4) [implementation of the Star Wars AP Class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=249.98) [and then below, we've added, are adapter.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=252.94) [All the adapter does is create an instance](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=256.14) [of the underlying Star Wars. A P I type.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=258.32) [This is going to use composition and later](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=261.87) [on we might decide that we want to inject](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=264.3) [that instance through the constructor so](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=266.27) [that our dependency injection container](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=268.66) [could be responsible for its lifetime. But](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=270.42) [as a first pass weaken just insane, she](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=272.22) [ate it ourselves. Then our get characters](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=273.96) [call is trivial. All it does is delegate](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=276.32) [to the Star Wars, a p I instance, and call](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=279.74) [it's Get characters method. We made sure](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=281.67) [it was this simple. When we chose to use](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=283.92) [the get character's signature for our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=286.01) [interface that we introduced, we made sure](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=288.57) [that it matched the Star Wars, a P I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=291.04) [implementation. The character file source](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=293.04) [requires a little more work at the top.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=295.47) [You can see the initial character file](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=297.84) [source. It requires the file name on its](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=299.63) [get characters from file method. This](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=302.87) [particular interface is incompatible with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=305.61) [the Star Wars, a P I interface. It has a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=308.37) [different signature, and it has a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=311) [different method name. So in our adapter,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=312.59) [we're going to do similar to what we did](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=316.09) [with the Star Wars adapter. But we have to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=318.04) [do a little bit more work. We need that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=320.17) [file name to pass into that method, and so](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=322.08) [we're going to pass that into the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=324.86) [constructor of our adapter. Instance we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=326.59) [take in the file name and we assign it to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=329.72) [a private local field, Then inside of our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=331.66) [interface implementation of the get](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=335) [characters method. Cole, we're gonna pass](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=336.95) [that file name to the instance of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=338.73) [character file source that we have as](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=340.97) [another private field again in a future.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=343.3) [Re factoring We could modify this so that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=346.02) [instead of in Stan Sheeting the character](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=347.85) [file source directly, we could request it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=349.4) [from the constructor. After a quick re](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=351.51) [factory, we can eliminate Thean Stan she](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=353.87) [ation of the underlying character file](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=356.07) [source and just requested through the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=358.07) [constructor. This will allow us to use](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=359.86) [dependency injection. In this case, it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=361.86) [doesn't really change the behavior of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=364.26) [system, but it does give us an opportunity](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=365.73) [to manage the lifetime of the underlying](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=367.69) [target interface through the IOC](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=370.74) [container, the dependency injection](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=373.34) [container that we're using in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=374.92) [application. We do the same thing with the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=376.43) [Star Wars, a p I adapter, and that makes](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=379.72) [it so that inside the character displaced](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=382.51) [service, we can just inject an eye](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=384.44) [character source adapter. We don't care](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=387.23) [which particular implementation it is. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=389.64) [no longer need an enumeration to tell us](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=392.19) [which type of source we're using. We're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=394.32) [going to get that information just based](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=396.46) [on the type that gets injected. And we'll](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=398.08) [manage that type centrally when we create](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=400.09) [the application, or at least when we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=402.28) [create this particular service. Now this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=403.79) [Star Wars character display service](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=406.55) [definitely follows the open closed](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=408.54) [principle because we can adjust it to work](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=410.44) [with any different source of character](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=412.8) [data without having to change any of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=414.76) [code inside of this class Now where we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=417.31) [have to in Stan, she ate things is in this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=420.81) [case going to be inside our tests. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=423.04) [whereas before our test didn't need to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=425.58) [worry about in stand seeing the individual](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=427.96) [character file source for character file](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=430.07) [source adapter. Now, since we've moved all](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=432.33) [of these things into constructor](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=435.09) [injection, we have to provide those](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=436.7) [instances when we create the service](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=438.51) [inside the application itself, we would](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=441.14) [probably just wire this up and used the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=443.22) [dependency injection container. If we were](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=445.22) [using a SP dot net core. This would happen](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=447.61) [inside of the startup dot CS class inside of the Configure Service's method](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=5&mode=live&start=450.15)

[Related Design Patterns](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live)

[[Autogenerated] the adapter pattern is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=0.18) [related to a number of other patterns,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=1.26) [either in structure or usage. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=3.3) [decorator has a similar structure, but the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=6.28) [intent of a decorator is to add](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=9.07) [functionality. Likewise, the bridge](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=11.14) [pattern is very similar in structure, but](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=14.24) [it's in 10 specifically is to allow](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=16.63) [interfaces and their implementations to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=18.98) [vary independently from one another, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=21.37) [the proxy is structurally similar as well.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=24.62) [But its intent is to control access to a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=27.04) [resource, not to convert an incompatible](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=29.11) [interface. Remember that patterns are not](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=31.6) [just about the different ways of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=34.73) [structuring your code, but also about](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=36.17) [communicating design intent. Here we have](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=38.62) [four different patterns the three shown,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=41.62) [plus the adapter that each are very](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=43.79) [similar on paper but which have different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=46.03) [names to reflect how they're used.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=48.14) [Sometimes the repositories Pattern X is an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=51.51) [adapter, providing a common interface for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=54.03) [persistence that can map various](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=56.3) [incompatible interfaces to a single common](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=58.38) [data access strategy. And speaking of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=61.33) [strategy, the strategy pattern is very](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=64.18) [frequently used with the adapter pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=66.62) [as a way of injecting different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=68.68) [implementations of behavior into a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=70.08) [particular client class. Finally, the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=72.56) [intent of the facade is similar to the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=76.16) [adapters in that it alters an interface to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=78.56) [make it easier for a client to use. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=81.07) [difference, though, is that the facade](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=83.51) [often sits in front of multiple different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=85.58) [types in its goal is to simplify a complex](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=87.94) [set of operation, not necessarily to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=91.24) [provide a way too easily swap between different, incompatible operations.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=6&mode=live&start=93.5)

[Adapter for Results](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live)

[[Autogenerated] The adapter pattern can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=0.22) [also be applied to result types, not just](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=1.42) [the service providers in this case, to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=3.99) [apply the pattern you must create or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=6.97) [choose a common result type that your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=9.13) [client expects to consume. Then you can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=11.45) [inherit from this type and use composition](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=14.82) [to delegate calls made to the common type](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=17.39) [to the specific, incompatible type. Let's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=20.14) [look at an example. Imagine if the file](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=23.46) [source that we've been working within our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=26.79) [demo returned a list of characters instead](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=28.27) [of a list of person. Obviously character](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=31.39) [in person are very similar, but character](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=34.77) [has properties, full name and hair.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=37.53) [However, person has properties, name and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=41.64) [hair color. Our client could expects to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=44.96) [work with a person type, so we'll use this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=48.18) [as our adapter. In order to do so, we need](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=51.08) [to modify it to make its properties](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=54.19) [virtual. If we didn't have the ability to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=55.95) [make this change, we would have needed to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=58.27) [introduce a new type to serve as the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=60.27) [wrapper and then modify our client could](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=62.49) [to work with this new type. Once we have](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=65.01) [identified a base adapter type that we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=68.25) [use in this case person, we need an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=70.71) [implementation specific version of it. In](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=73.77) [this case, we are wrapping character in a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=77.13) [person adapter, so we named the class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=79.92) [character to person adapter. In it, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=82.57) [override calls to name and hair color, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=86.09) [we delegate thes properties to the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=89.84) [character instances, full name and hair](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=91.84) [properties. Finally, we need to modify the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=94.63) [character file source adapter so that it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=98.78) [converts the character. Final sources](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=101.45) [returned collection of character instances](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=103.71) [into a sequence of type person,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=106.94) [specifically of type, character to person](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=110.14) [adapter, which inherits from person.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=112.79) [You'll find that the Link Select statement](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=116.04) [is very well suited to this kind of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=118.2) [transformation in results, in short, clear code like you see here.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=7&mode=live&start=119.88)

[Key Takeaways](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live)

[[Autogenerated] As we wrap up this course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=0.44) [keep in mind these key takeaways. First,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=1.98) [the intent of the adapter design pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=5.57) [is to convert from an incompatible](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=7.9) [interface to a compatible one forgiven](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=9.71) [client. Second in C sharp, you will use](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=12.46) [composition rather than multiple](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=16.53) [inheritance. Your adapter implementations](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=18.12) [will contain instances of the incompatible](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=21.01) [type and will delegate calls to this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=23.24) [instance is incompatible methods or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=25.47) properties. You'll find that adapters are [very similar to many other design patterns](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=31.02) [and are one of the more commonly used](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=33.42) [patterns as well. In addition to wrapping](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=35.33) [incompatible service providers, adapters](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=38.8) [can also be used to wrap result types to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=41.31) [make them compatible. And finally, the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=44) [source code is available to download with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=46.97) [the course. But you'll find the latest](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=48.95) [updated version on Get Hub in the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=50.9) [following repositories. Feel free to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=53.08) [submit issues and pull requests if you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=55.53) [find any problems in the samples. Thanks.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=57.86) [I hope you found this brief course on the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=61.38) [adapter pattern. Helpful. Don't forget to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=63.01) [leave a review, and if you have any](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=64.97) [questions, you can post them in a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=66.31) [discussion for him or find me online until next time](https://app.pluralsight.com/player?course=c-sharp-design-patterns-adapter&author=steve-smith&name=56e9fbd5-5b32-4134-9301-693d51b1b2b7&clip=8&mode=live&start=67.8)