[Course Overview](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live" \t "psplayer)

[Course Overview](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live)

[Hi everyone. My name is Filip Ekberg, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=0) [welcome to my C# Sharp Design Patterns](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=8.228375) [course, covering the strategy pattern. I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=10.387) [a principal consultant and CEO at a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=13.669625) [consulting agency operating out of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=15.858) [Gothenburg in Sweden. I started this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=17.832) [company a few years ago and focus on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=20.345333333333333) [building fast, powerful, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=22.6736) [easy-to-maintain solutions. This course is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=24.981666666666666) [for those of you that want to learn how](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=27.493333333333336) [the strategy pattern works, which is one](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=29.59871428571429) [of the most common used patterns, and how](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=31.646875) [to apply that in your C# applications. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=34.09949999999999) [will cover everything you need to know to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=37.504625000000004) [master this pattern. This includes what](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=39.355000000000004) [the strategy pattern is and its](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=41.73485714285714) [characters, understanding the benefits and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=44.434000000000005) [tradeoffs when using the strategy pattern,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=46.489399999999996) [how to implement the strategy pattern in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=49.041) [new and existing solutions, as well as](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=51.149) [identifying and leverage existing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=53.499) [implementations. By the end of this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=56.3302) [course, you'll feel comfortable with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=57.506333333333316) [implementing the strategy pattern in your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=59.32399999999999) [applications. This will allow you to build](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=62.017500000000005) [extensible, more robust, and testable](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=63.916857142857125) [applications. Before beginning the course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=66.60040000000002) [you should be familiar with the C# syntax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=67.97271428571428) [and how to build and run .NET](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=70.013375) [applications. No other prior knowledge is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=72.88059999999997) [necessary. I hope you'll join me on this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=75.53533333333336) [journey to learn all about working with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=77.35611111111113) [this very powerful C# design pattern with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=78.99514285714288) [the Strategy Pattern course at Pluralsight.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=55413a23-c801-4ab1-900e-01d89a2c0245&clip=0&mode=live&start=81.79033333333332)

[Strategy Pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live)

[Introduction](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live)

[Welcome to a C# Design Patterns course. My](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=0) [name is Filip Ekberg, and I will guide you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=4.4175555555555555) [through understanding the strategy pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=6.3684) [and how to apply that in your C#](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=8.1259) [applications. The strategy pattern is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=10.8451) [probably one of the most common patterns](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=12.248000000000003) [that you will encounter. So it's crucially](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=14.462571428571426) [important that you understand how to apply](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=16.6375) [it, how to identify it, and how to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=18.387500000000003) [leverage that in your applications. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=20.993999999999996) [throughout this course, we'll be looking](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=23.135857142857144) [at understanding and implementing the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=24.767) [strategy pattern. We'll be talking about](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=27.117) [identifying and leverage existing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=29.898) [implementations be that in your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=32.043) [applications, in the .NET framework, or in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=34.19) [packages that you might bring in from, for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=37.385999999999996) [instance, NuGet. And just as with any](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=39.7165) [pattern, it's crucially important that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=41.491833333333346) [understand the benefits, as well as the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=43.03950000000002) [tradeoffs. We really want to get a good](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=45.474428571428554) [understanding of where this fits in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=47.39687499999998) [applications and how to leverage the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=49.70575) [pattern in the best possible way. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=51.38099999999999) [strategy pattern can be identified by](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=54.29514285714286) [these three different characteristics. You](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=56.168) [have something identified as the context.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=59.38485714285714) [The context simply has a reference to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=61.874) [something that we call a strategy. A](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=63.662) [strategy is simply an interface that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=65.85014285714286) [defines how to work with a given strategy.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=67.591) [Then we have the particular strategy,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=71.087) [which is simply a concrete implementation](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=73.078) [of that particular algorithm. This, of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=75.585) [course, sounds fairly simple. And,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=78.40833333333335) [honestly, the strategy pattern is probably](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=80.172) [one of the easier patterns to understand,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=81.78414285714285) [and it's one of those patterns that are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=83.50057142857142) [very commonly applied in applications even](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=85.81333333333333) [though you might not know that you just](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=87.53114285714287) [applied the strategy pattern. So in a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=90.23385714285715) [real-world scenario if we translate our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=92.80812499999999) [strategy pattern into something that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=94.8367142857143) [could find in our applications, the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=96.797) [context could be the class that simply](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=99.090125) [invokes an operation to get the total tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=100.855) [of an order. So the context simply](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=103.666) [specifies that it has an IStrategy, and we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=105.96) [then set that particular instance at](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=109.21788888888888) [runtime. We can then call our strategy to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=111.8425555555555) [get the tax for a particular order. Our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=113.46377777777775) [interface simply exposes our GetTax for a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=115.792) [particular order, and then our concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=118.21457142857143) [implementation for different strategies](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=120.00225) [can be how do we calculate the sales tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=121.85125000000001) [in Sweden or in the US. Calculating the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=124.31025) [sales tax in the US is very different from](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=126.82744444444444) [calculating our sales tax in Sweden. So it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=129.43824999999998) [makes a lot of sense to decouple that from](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=132.57399999999998) [our particular context, and that's one of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=135.05842857142858) [the main goals of any given pattern, to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=136.84875) [make your applications more extensible,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=139.20266666666666) [easier to work with, and hopefully a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=141.321) [little bit more testable. Another example](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=143.21100000000007) [of this is when our context, which in this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=144.9381428571429) [case could be the order, has a reference](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=147.24037499999991) [to an IStrategy that allows us to create](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=149.22433333333333) [an invoice. Our IStrategy simply exposes](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=151.91549999999995) [the contract that allows us to call create](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=154.5116666666666) [invoice for a particular order. Then we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=156.96600000000004) [have different types of strategies](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=159.203) [depending on how you want to deliver your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=160.5937142857143) [order. You can get a PDF, you can get an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=162.99600000000004) [email, or maybe you want to print this by](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=165.82789999999994) [leveraging a print-on-demand service.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=167.751) [Depending on which type of invoice](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=169.907) [delivery our customer specified when they](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=171.27585714285706) [placed their order, we might decide on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=173.42566666666664) [this particular concrete implementation](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=175.55428571428564) [for the strategy in runtime. So the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=177.432) [context doesn't have to know anything](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=180.91814285714287) [about the PDF, email, or printing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=182.21179999999998) [services. It simply needs to know that in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=184.8083333333333) [runtime, we're going to get an IStrategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=187.396375) [that allows us to simply create the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=189.31200000000004) [invoice for our order. The crucial part](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=191.47444444444446) [here is that we can select an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=193.29066666666665) [implementation at runtime based on the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=194.64200000000002) [user input without having to extend the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=196.55) [class. So the context that we talked about](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=199.13037500000007) [was our order. The order had a reference](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=201.52829999999992) [to a strategy for delivering an invoice.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=203.63188888888882) [The order doesn't have to know if it needs](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=206.395) [to ship it, email, or save a PDF to disk.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=207.916) [It simply needs to know that it has the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=211.165) [capability of creating an invoice. This](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=212.716) [means that our order class is now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=215.45450000000002) [decoupled from the particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=217.782) [implementation of how to create an invoice based on what the user selects.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=0&mode=live&start=219.556)

[Strategy Pattern: First look](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live)

[Let's have a first look at how we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=1.5143439999999828) [improve an application by introducing the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=2.9453439999999826) [strategy pattern. What type of application](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=5.1683439999999825) [that you're using is not important in this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=7.609486857142839) [case. In this particular example, I've](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=9.80717733333332) [leveraged a console application. That's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=12.035343999999983) [just to make it easy for you to follow](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=13.916343999999983) [along and add a little bit of code on your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=15.382677333333316) [own. So feel free to pause the video and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=18.23889955555554) [add some code into the classes to try and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=21.102788444444425) [follow along when we talk through the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=23.465843999999983) [strategy pattern. Now in this console](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=25.26201066666665) [application, the idea here is that we are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=27.338143999999986) [doing order processing. We have this sales](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=30.168143999999973) [system that will process an order. What we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=32.210343999999985) [want to do is to calculate the tax on our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=33.931232888888864) [particular order. Calculating the tax is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=36.9366297142857) [different depending on where you live in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=38.836343999999976) [the world. And later on in the course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=40.4559154285714) [we're also going to talk about creating](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=42.003343999999984) [the invoice depending on what type of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=43.66934399999998) [invoice delivery our user selects. And](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=45.863343999999984) [then we want to ship the order. And](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=48.49559399999998) [depending on which shipping company our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=50.28834399999999) [users want to leverage, we might have](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=52.13034399999998) [different APIs that we want to integrate](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=53.72934399999998) [with. And to avoid cluttering our order](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=55.712094) [clause with a lot of implementation](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=57.6479154285714) [details for all of those different types](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=59.29262971428568) [of systems, we're going to leverage the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=61.28677257142857) [strategy pattern. So let's go ahead and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=63.65820114285714) [have a look at our program. We're simply](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=65.26852581818177) [setting up a new order, and we're saying](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=66.89434399999999) [that we're going to ship this order within](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=68.72596899999999) [Sweden because what's interesting with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=70.36434399999999) [Sweden is that when you sell things within](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=71.76377257142856) [Sweden, you apply a certain tax rate. When](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=73.85320114285713) [you sell it outside of Sweden, you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=76.04534399999999) [shouldn't apply any tax at all. So we need](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=77.99601066666663) [to take care of that when we are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=80.19670763636361) [calculating the tax for our particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=81.48034399999999) [order. Then, of course, we add a few line](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=83.84091542857142) [items to our order. I add my own book, I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=85.40554399999998) [add some consulting to build a website,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=87.80171899999999) [and these are different types of items. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=89.65934399999998) [we have literature, which might have one](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=91.94259399999999) [tax rate, and we have services, which](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=93.73634399999999) [might have a different tax rate. And then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=95.88620114285713) [at the end here, we simply want to print](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=97.77534399999999) [the total tax for our order to the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=99.45864399999998) [console. So while this course isn't, in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=102.55704399999995) [particular, about implementing tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=104.63548685714288) [calculations because that can be fairly](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=106.375344) [complex, we're going to use this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=108.32184399999996) [real-world scenario to see how we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=109.78759399999998) [apply the strategy pattern. Let's jump](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=111.75174399999997) [into our method here that calculates our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=114.16534399999998) [tax on our order. You'll see here that the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=116.20801066666665) [method GetTax will return a decimal. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=119.36646900000001) [first thing that we're going to check is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=121.24062971428572) [if the destination country is Sweden or if](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=123.25509399999996) [it's the United States. If it's US, we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=125.98701066666662) [going to check if the destination is LA,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=128.22389955555553) [New York, or New York City because they](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=130.032969) [have different sales tax. Now, of course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=132.6657725714286) [the rates might not be correct. But again,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=134.45301066666664) [this course isn't about the sales tax.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=136.09348685714286) [It's about how to make this application a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=138.220344) [little bit more extensible and a lot](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=141.151344) [easier to work with. So this here is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=143.42791542857145) [interesting because now we have our GetTax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=145.32584399999993) [method. The GetTax method has the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=147.54284399999995) [information about how to do the particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=149.606344) [computation for Sweden and the US. It's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=151.63405828571427) [all grouped in here. So in order for us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=153.92512177777783) [make this a little bit better, we're going](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=156.25634399999998) [to leverage the strategy pattern. What](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=157.94005828571423) [that means is that our order will be our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=159.82105828571423) [context. The order will simply hold a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=163.40117733333327) [reference to a strategy that knows how to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=164.97434400000006) [calculate this tax. And if we drilldown](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=167.84021899999993) [into the particular implementation for how](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=170.0867725714286) [to calculate the tax for Sweden, we might](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=171.72220114285716) [even want to make this better because in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=173.97045511111105) [Sweden depending on which type of item you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=175.93634400000002) [sell, you have different tax rates. That](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=178.21434399999995) [might be applicable to other countries as](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=180.2622011428571) [well. So there's a lot of improvements](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=182.278344) [that we want to make in here, but we don't](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=183.49459399999992) [want to make this method more complex than](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=185.05754399999995) [it already is. And another drawback of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=187.24520114285704) [coupling all the implementation details](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=190.04734399999998) [for the tax calculation is that it becomes](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=191.94567733333326) [a little bit harder to test each of these](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=194.6843439999999) [different calculations. So the first thing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=196.769344) [that we're going to do is that we're going](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=199.21623288888884) [to introduce our interface for a sales tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=201.3977725714286) [strategy. In our business layer, I'm going](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=204.73017733333336) [to add a new folder called Strategies. Now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=206.27034399999997) [that I have my Strategies folder, what I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=208.7876297142857) [going to do is that I'm going to add](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=210.49494399999998) [another subfolder where I'm going to group](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=211.90948685714284) [everything that has to do with our sales](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=213.97296899999998) [tax. And here I'm going to add the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=215.9426773333333) [ISalesTaxStrategy, which will simply](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=218.33734399999997) [dictate the contract for our sales tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=221.15834399999997) [strategies. So now we've defined the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=224.36784400000005) [contract for how to calculate our sales](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=225.92384400000003) [tax. So now we can add a concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=228.76314399999995) [implementation for how to calculate the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=230.66284399999998) [sales tax in Sweden, as well as how to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=232.23384399999995) [calculate the sales tax in the US. So I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=235.06659399999995) [going to add two more classes. I'm going](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=238.01734399999995) [to add my SwedenSalesTaxStrategy, as well](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=240.064344) [as the UnitedStatesSalesTaxStrategy class.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=243.29767733333333) [We'll start off by adding the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=246.17234399999998) [SwedenSalesTaxStrategy, and this class](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=247.30234399999998) [will implement our interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=249.58794400000002) [ISalesTaxStrategy, which will require us](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=252.71384399999994) [to implement the method GetTaxFor a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=254.69620114285715) [particular order. All that we're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=257.17514399999993) [do in here is that we're pretty much going](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=258.973344) [to copy everything that we had in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=260.6940582857144) [order for how to do this for Sweden. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=262.4813440000001) [pretty much what we want to do is copy all](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=264.40834400000006) [of the code that we have inside our if](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=266.6303439999999) [block here for when this particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=269.133469) [destination is Sweden. Let's take this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=271.872844) [code out and add this to our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=274.45234400000004) [SwedenSalesTaxStrategy. And, of course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=276.780344) [since we're no longer inside the order, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=278.52134400000006) [need to leverage the order here when we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=280.43684399999995) [are calling these different properties. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=282.34720114285705) [this here now implements a way for us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=284.42804399999994) [simply get the 25% sales tax across the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=286.97234399999996) [board for anything that we sell in Sweden.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=290.274344) [We could, of course, still make sure that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=292.603344) [the destination or the origin is Sweden.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=294.062344) [But in this case here, we're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=296.805344) [trust that whoever's leveraging this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=298.35112177777785) [strategy will only apply the strategy when](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=300.3163439999999) [the Swedish sales tax applies. Let's do](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=302.88248685714274) [the same thing for our US sales tax.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=306.859344) [Again, we're going to implement our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=309.511344) [ISalesTaxStrategy. We're going to go over](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=310.712344) [to the order, and we're going to take all](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=313.10234399999996) [the code that we have inside our US block](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=314.99434399999996) [and add this to our new strategy. And just](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=317.819344) [as that, we have now implemented a sales](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=320.97034399999995) [tax strategy for both Sweden, as well as](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=323.45534399999997) [the US. But now we need a way for us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=326.3296167272727) [leverage this. We've added the interface.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=329.07014399999997) [We've added our concrete implementation of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=331.415344) [a strategy. We started breaking things out](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=333.50134399999996) [of the order. But now we need to make sure](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=336.12134399999997) [that we refactor our GetTax method in here](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=338.41734399999996) [to leverage one of these strategies. I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=341.410344) [mentioned earlier that we don't want the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=343.739844) [order itself or, in this case, it's also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=345.017344) [known as the context to know about the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=346.93984399999994) [particular implementation. So all that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=349.545344) [need to do inside our order is to expose](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=351.361344) [the ISalesTaxStrategy interface to allow](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=353.93174400000004) [anyone to tell the order which type of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=356.25484400000005) [strategy to use when applying the tax. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=359.4120939999999) [let's get rid of our code that we have in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=362.1912439999999) [our GetTax method. We're going to expose](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=365.26784399999997) [an ISalesTaxStrategy. If we haven't](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=368.3920106666667) [specified a SalesTaxStrategy, what we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=370.62434400000006) [going to do is simply return 0 because](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=372.39623288888885) [then we are unable to calculate the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=374.580969) [particular tax. We could also throw an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=376.622344) [exception, which would probably be more](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=378.697344) [accurate. But in this case, let's just](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=380.8350582857143) [return 0. And then what we're going to do](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=382.63209400000017) [down here at the bottom is to return the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=383.9111217777779) [particular calculation that we're doing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=386.535969) [with our SalesTaxStrategy. We're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=388.48434399999996) [call GetTaxFor. We could, of course, make](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=390.81374399999993) [sure that we only pass the line items. But](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=393.1642328888889) [in this case, I'm just going to pass the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=396.25212177777775) [order because that makes it a little bit](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=397.381469) [easier, and it was easier for us to do the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=398.747144) [first step of a refactoring. Whenever you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=401.150844) [refactor code, make sure that you start](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=403.7332011428572) [off with small pieces. We can then improve](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=405.915344) [the application as we go on. Now if we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=407.856344) [compile this, we don't have any](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=409.9209154285715) [compilation errors. Our GetTax method now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=412.0676773333333) [leverages our ISalesTaxStrategy. But we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=414.7516773333334) [haven't set this to anything yet, so we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=417.016344) [want to do that. We want to go over to our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=419.53267733333325) [program, and we want to make sure that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=421.6348439999998) [whenever we create this order, we want to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=422.8470106666668) [also set our particular SalesTaxStrategy.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=425.3190106666667) [So now what we've done here is that based](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=428.521344) [on the destination of our order, we are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=430.23934399999996) [setting the SalesTaxStrategy. Based on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=433.22254399999997) [what the user selects, we leverage this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=435.30567733333334) [behavioral design pattern to set the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=438.146844) [particular strategy for how to calculate](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=440.29671899999994) [the sales tax. So now if we run the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=442.12209399999995) [application, the total sales tax is 50](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=445.19505828571437) [Swedish kroners. Although I know that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=447.4858439999999) [depending on if it's literature or if it's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=449.09634400000004) [a service, we have different tax rates. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=451.16667733333327) [in order for us to improve that and make](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=454.48504399999996) [this a little bit better, what we can do](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=455.904344) [is now head over to our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=458.02474399999977) [SwedenSalesTaxStrategy and fix this. I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=460.4036773333334) [refactored this method to take into](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=461.87684399999995) [account to calculate the total tax for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=463.50591542857137) [each line item in my order. Food has the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=465.618094) [tax rate of 6%, literature 8%, and service](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=468.80034400000005) [and hardware is a 25% tax rate. And then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=471.9334551111111) [we return the totalTax back. And if we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=474.7673439999999) [then rerun the application. we can now see](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=476.93348685714284) [that the totalTax is 33 kroners. The big](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=479.75794400000007) [benefit for refactoring all of the Swedish](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=482.76662971428567) [sales tax computation into this particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=485.39120114285714) [strategy is that it was very simple for me](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=487.7559154285714) [to refactor this to leverage different tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=490.3955939999999) [rates based on the item types. It also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=492.89384399999994) [means that I can more easily write tests](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=495.6666773333333) [for this particular strategy to take into](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=497.5276297142857) [account that other countries weren't](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=499.64851066666665) [affected by this change. I know that the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=501.60434399999997) [change that I made here is only going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=505.02614399999993) [affect orders from and to Sweden. That](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=507.48034399999995) [means that I can be sure that my test for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=510.565744) [the USASalesTaxStrategy shouldn't fail. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=513.655544) [we're able to change the strategy for a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=517.5798995555556) [particular country without affecting](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=520.200344) [anything else. And, of course, as with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=522.047344) [other design patterns, the whole purpose](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=524.487544) [of introducing patterns is to make our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=526.6333440000002) [applications easier to work with, as well](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=528.6593440000001) [as easier to maintain and easier to write](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=530.9552190000002) [tests for. And we've proven all of those](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=533.897344) [points by introducing the strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=535.9133440000002) [pattern. So what did we achieve by](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=537.784094) [refactoring our application to leverage](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=539.700344) [the strategy pattern. We certainly got a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=541.4738439999999) [more extensible object- oriented and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=544.1550582857145) [dynamic implementation. This, of course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=546.384344) [means that we can now easily add new](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=547.9883440000001) [strategies without affecting existing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=550.1558439999999) [ones. It also means that our application](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=551.9067725714286) [now has a cleaner approach where](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=553.8661773333333) [everything has a single responsibility in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=555.625544) [mind. The strategy is only responsible of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=558.192344) [calculating the tax for that particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=561.2483440000001) [country. The order simply leverages our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=563.6474868571431) [interface to request computation based on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=566.1216297142859) [the strategy that someone set on that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=569.2673439999999) [context. So decouple your code and achieve](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=572.0095106666665) [cleaner and a more extensible code base.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=574.3166297142857) [In our application of a tax calculation,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=576.809344) [we took this code that was coupled into](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=579.0663440000001) [our order that is potentially pretty](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=580.5952328888891) [difficult for us to test. We refactored](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=583.1321773333332) [the tax calculation to leverage the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=585.586344) [strategy pattern. We were simply setting](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=588.187844) [the strategy property to our particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=590.0933439999999) [concrete implementation of that strategy.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=592.4041440000001) [And then, of course, we leverage our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=594.9463440000001) [strategy inside our particular method in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=596.3113440000001) [the context, which in this case is the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=599.3743440000001) [order. So by now, you probably understand](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=601.7601217777776) [that when I say that the strategy pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=603.876344) [is one of the most common ones that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=605.9868995555556) [encounter, it's because it pretty much](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=608.6444690000002) [covers every case that you expose an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=611.1424868571427) [interface where anyone can set the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=613.7114868571431) [interface to a different concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=615.6298440000002) [implementation to change the behavior or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=617.308144) [strategy of how to perform a particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=619.9020939999999) [computation. This pattern is extremely](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=623.2393440000001) [powerful and something that makes our applications a lot more fun to work with.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=1&mode=live&start=625.4236773333332)

[Strategy Pattern: An Alternative Approach](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live)

[Up until now, we saw that we can expose a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=1.4035770000000485) [property on our particular order. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=3.5355770000000484) [strategy pattern also allows to take an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=6.634452000000048) [alternative approach in order for us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=9.216577000000049) [leverage a particular concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=12.028577000000048) [implementation of a strategy. So we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=14.098577000000049) [inside Visual Studio, and we're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=16.766377000000045) [look at an alternative approach to setting](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=18.41757700000005) [our strategy. So far, we set it to the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=20.773777000000052) [exposed property on our context. The](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=23.244577000000056) [alternative approach is to simply pass](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=25.452577000000044) [this into the GetTax method. This means,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=27.808577000000053) [of course, that we can leverage the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=30.073327000000045) [strategy pattern for anything that takes](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=31.628077000000047) [an interface. We'll add the strategy as an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=33.29586271428576) [optional parameter to our GetTax method.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=36.45832700000005) [If we don't pass the strategy to the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=39.82057700000005) [method, we're going to use the one that's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=41.32657700000005) [been set on our particular context. Then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=44.14757700000005) [we simply refactor the method to leverage](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=47.257862714285764) [the strategy that's either the one that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=48.82429128571433) [passed into the method or the one that's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=51.06635477777783) [set on the context. So this alternative](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=52.86417700000005) [approach gives us an idea that whenever we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=55.10429128571433) [take an interface in a method, we are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=57.61357700000005) [pretty much leveraging the strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=60.25657700000005) [pattern. So you're not required to name](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=61.91241033333338) [your strategies with the suffix of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=64.89491033333337) [strategy. So, again, as you see here, this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=67.84491033333333) [is extremely powerful and allows us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=70.22220200000004) [change the way that the order calculates](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=72.22157700000005) [our sales tax and, based on a behavior in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=75.03357700000005) [the application, we can at runtime decide](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=77.88857700000005) [on the strategy that we want to leverage](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=80.73157700000004) [for this particular sales tax, which means](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=83.30357700000005) [that this is an extremely powerful](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=85.72386271428577) [pattern. And it's really something that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=87.26477700000005) [you're going to see a lot throughout your development in C#.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=2&mode=live&start=89.22482700000003)

[Example: Creating an Invoice](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live)

[We're now going to look at another example](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=1.308844000000041) [of how to leverage our strategy pattern.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=3.540844000000041) [We will implement a way for us in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=6.326844000000041) [application to choose if we want to create](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=8.04484400000004) [an invoice that's sent over email, stored](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=10.28184400000004) [as a plaintext file on disk, or that's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=13.359701142857183) [leveraging a print-on-demand service. All](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=16.20484400000004) [of those different scenarios requires us](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=18.63051066666671) [to do different types of implementations.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=20.477129714285756) [And doing that in the order class and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=22.62684400000004) [extending that class with that particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=24.36684400000004) [logic isn't really something that's going](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=25.85884400000004) [to hold up in the long term. We are inside](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=28.18384400000004) [Visual Studio again, and we are looking at](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=30.746844000000046) [our console application. But you can, of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=32.97421900000005) [course, apply this pattern in any type of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=34.48834400000005) [application that allows you to set an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=36.37984400000004) [interface or a function pointer or any way](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=38.56471900000003) [of replacing a particular algorithm at](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=41.42727257142861) [runtime. So now what we want to do is that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=44.40251066666671) [we want to allow our application to send](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=46.1331167272728) [invoices. And I want to be able to send an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=49.07755828571433) [invoice over email, and also I want to be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=51.03074400000002) [able to call a print-on-demand service](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=53.09224400000006) [that will ship my invoice over normal](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=55.23051066666672) [snail mail. And then, of course, I also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=58.16212971428574) [want to store this on a file on my disk.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=59.98517733333339) [So what we're going to do is that we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=62.55684400000004) [going to add another section in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=63.35684400000004) [Strategies folder. What's interesting here](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=65.36984400000004) [is that we started off with refactoring](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=67.49784400000004) [our sales tax calculation into leveraging](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=69.59084400000009) [the strategy pattern. Now in the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=72.45651066666672) [application, I don't have any invoicing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=74.79901066666673) [added. So I'll start off by introducing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=76.897344) [the strategy pattern because frankly 6](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=79.13212971428577) [months from now, we might want to add new](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=82.01767733333338) [ways of shipping invoices or change the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=84.47744400000005) [way of how our invoices are currently](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=86.59571900000003) [being delivered. So introducing the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=89.20751066666668) [strategy pattern from the start for this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=91.06984400000005) [particular new feature makes it easier for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=93.71527257142861) [us to extend this as we go on. So now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=95.88164400000002) [first off what we do is just like what we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=98.35948036363641) [did with the sales tax strategy. We start](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=101.09117733333339) [off by the interface, which will expose](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=103.4305106666667) [how we leverage this in the application.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=105.26984400000005) [Our InvoiceStrategy tells us that we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=107.76424400000005) [now generate an invoice based on a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=110.61834400000006) [particular order. This method doesn't](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=113.10344400000004) [return anything because either it sends an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=114.81084400000005) [email, calls an API, or writes something](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=117.14184400000005) [to our filesystem. You could, of course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=119.66034400000004) [have whichever signature you want. But in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=121.20784400000004) [this case here, this makes sense for our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=123.77995511111116) [particular strategy that we've chosen now.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=125.56084400000005) [So now I want to add a few different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=127.65484400000004) [strategies. What's interesting with all of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=129.97144399999996) [my different strategies is that most of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=131.18812971428576) [them are going to leverage the same base](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=132.95246900000006) [functionality. So what I'll do is that I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=136.03001066666675) [going to add an abstract base class that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=137.8047530909092) [allows me to create the basic](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=140.0247011428572) [implementation of our InvoiceStrategy.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=141.98584400000007) [This abstract class is going to implement](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=143.43744400000006) [our interface. But we want to require that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=146.91404400000008) [whoever's inheriting from our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=148.9934154285714) [InvoiceStrategy needs to implement the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=150.61104400000008) [Generate method. So we're going to mark](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=152.65664400000006) [this as abstract. Now whoever's inheriting](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=154.53421900000006) [from our InvoiceStrategy will be required](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=156.31704400000004) [to override the Generate method, which](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=158.62064400000006) [still means that all of them are going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=160.89296900000002) [implement the interface for an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=162.59198685714287) [IInvoiceStrategy. Now the shared](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=164.05484400000003) [functionality that I want across all my](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=166.59384400000005) [different invoice strategies is a way for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=168.36484400000003) [me to represent our invoice as a string.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=169.95584400000004) [So for this course, the implementation of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=173.24384400000005) [how to generate a text invoice isn't](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=175.23284400000003) [really important. All that we are doing is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=177.89906622222236) [that we are setting the invoice date. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=180.16551066666676) [are adding all the items. We are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=183.0531773333334) [retrieving the tax from our order, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=185.16509400000007) [then we are printing out the total at the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=187.38739955555562) [end. What's interesting, of course, is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=189.70301066666673) [that order.GetTax will leverage another](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=191.65084400000003) [strategy. So this here is an aggregation](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=194.81084400000006) [of all the data that I want to be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=196.82817733333343) [displayed in my particular invoice. Now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=199.18484400000003) [this makes it easier for us to add the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=200.90384400000008) [concrete implementations of the other](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=203.2925582857144) [different types of strategies for how to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=205.10204400000006) [ship an invoice. Let's add emailing, file,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=207.87117733333335) [as well as a print-on-demand invoicing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=210.14984399999997) [strategy. We'll start off by adding the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=213.05417733333337) [EmailInvoiceStrategy. Our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=214.61484400000003) [EmailInvoiceStrategy will simply send an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=217.01684400000005) [email with our text representation of an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=219.51784400000005) [invoice. You can see here that I can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=223.1088440000001) [choose either to implement our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=224.95884400000006) [IInvoiceStrategy, or I'm going to inherit](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=227.22334400000003) [from our InvoiceStrategy base class. This](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=229.1365582857144) [will, of course, require us to implement](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=231.89555828571432) [the method Generate. So we're going to do](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=233.71259400000005) [just that. We're then going to get the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=237.05155828571426) [body for our email. I'm going to call](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=239.01444400000008) [GenerateTextInvoice, which lives in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=241.61164400000004) [base class. Based on the order, we now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=243.19651066666668) [have the body for our particular email.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=244.97351066666675) [And then I'm going to leverage SendGrid to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=247.07084400000005) [send this email. Now the particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=248.86984400000003) [implementation details for how to send an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=250.61784400000005) [email and leveraging the SMTP client and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=252.80584400000004) [all of that isn't really important in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=255.36684400000004) [terms of the strategy pattern. But I find](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=257.82996900000006) [it more interesting when we run some live](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=260.387844) [code that will send me an email, and we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=262.1280662222223) [see that this, in fact, works. So you'll](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=264.06684400000006) [see here that we have the SmtpClient. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=266.3066217777779) [then set the body of our message, and then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=268.27046900000005) [we send the email. So now we have the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=270.3325106666667) [capability of sending the invoices on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=272.469969) [email. Now I also want the capability of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=273.97034400000007) [saving this as a text file. This course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=275.87771899999996) [of course, be saving this as a PDF for the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=278.19484400000005) [particular user to then download later on.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=280.65884400000004) [The same thing applies to the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=284.48284400000006) [FileInvoiceStrategy. We inherit from the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=285.565844) [base class InvoiceStrategy, which will](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=288.1381773333335) [allow us to call GenerateTaxInvoice. We're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=289.7898440000001) [going to open a StreamWriter to a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=293.44796900000006) [particular file on my disk. We're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=295.59084400000006) [get the text representation for this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=298.48927257142867) [invoice from the order. And then we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=300.86817733333334) [going to flush this out and write this to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=302.7421773333333) [our disk. The last capability that I want](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=304.609844) [is for us to be able to call a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=306.53717733333326) [print-on-demand service to generate a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=308.9807011428571) [paper invoice. With the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=312.68251066666664) [PrintOnDemandInvoiceStrategy what I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=315.47034400000007) [going to do here is not leverage our base](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=316.8158440000001) [class because I'm not going to get a text](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=319.1467328888889) [representation to pass to this particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=321.56517733333334) [print-on-demand service. The API that I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=324.0895106666667) [invoking is purely fictional. Pluralsight,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=327.1128440000001) [at this time, doesn't have a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=328.79470114285715) [print-on-demand service. But I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=330.19784400000003) [leveraging the HttpClient. The idea here](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=332.6314440000001) [is to serialize my order to a particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=334.639644) [object. This would, in most cases, be a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=337.131344) [completely different model. But this just](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=340.00084400000003) [proves the point of how to use this. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=341.4325106666667) [then post this onto our /print-on-demand.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=343.37334400000003) [We pass the content as StringContent, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=345.23717733333336) [then hopefully this will end up in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=348.56284400000004) [user's mailbox. What's of course very](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=352.3168440000001) [interesting here with the invoicing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=354.3054154285715) [strategy is that I've now added an email](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=355.7514154285714) [invoicing strategy, which leverages the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=358.75724400000007) [SmtpClient. We have the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=361.32284400000003) [FileInvoiceStrategy, which leverages a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=363.023844) [normal StreamWriter. And then we have our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=364.942444) [print-on-demand InvoiceStrategy, which](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=367.4961773333334) [leverages an API. We could, of course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=369.074044) [have another one that persists this into a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=371.71784399999996) [database. So the strategy for how to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=374.2542440000001) [deliver the invoice can be very different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=376.5775939999999) [depending on what the end user decides](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=378.5475582857144) [when they place the order. But since we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=380.9064690000001) [are now leveraging the InvoiceStrategy,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=383.297594) [this means that our application is now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=384.896844) [extensible. And it's very easy for us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=387.916094) [add new strategies of how to store the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=389.9975106666668) [invoices or how to send them off to the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=392.56384400000013) [user. Maybe someone wants them sent by an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=394.9124689999999) [SMS, and then we can then add an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=396.96784399999996) [integration with one of the SMS providers.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=398.895594) [If we had all this code inside our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=401.28284400000007) [particular order class, this would've been](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=403.029844) [purely terrible to maintain. As we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=404.943844) [continue refactoring the application, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=408.4735106666667) [might find that we want to keep our order](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=410.33406622222225) [much cleaner. And the usage of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=412.32246900000007) [strategies might fit more in something](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=414.41284400000006) [like an order service. This would then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=416.6594154285714) [mean that our order service would become](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=419.2315582857143) [the context. It would leverage our data](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=421.38359399999996) [model, which would probably be the order.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=423.80301066666664) [And the service layer could then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=426.22384400000004) [communicate with our different strategies.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=427.325844) [But you can play around with this yourself](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=429.53284400000007) [and improve the way that you might](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=431.90684400000004) [leverage different patterns to create a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=433.42059400000005) [very nice solution. We could, of course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=436.00996900000007) [leverage other patterns to make the kind](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=437.551844) [of the same approach, but I reckon that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=440.0797190000001) [this gives us the cleanest way possible to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=442.58546900000005) [decouple the particular concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=445.56084400000003) [implementations for these different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=447.272844) [strategies. Now let's leverage this inside](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=449.710444) [our order and make sure that we can invoke](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=451.584844) [one or two of them. Just as we did with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=453.546144) [our SalesTaxStrategy, we're now going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=455.946969) [expose an invoicing strategy. We're only](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=458.7650106666667) [go to send an invoice when we finalize our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=461.79628844444443) [particular order. So now we're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=464.498844) [expose a new method from our particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=466.592732888889) [order to allow us to finalize it. When we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=468.1362190000001) [are finalizing the order, we want to check](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=470.76370114285714) [if we have any selected payments that is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=472.9521773333335) [of the type invoice, as well as still](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=475.0594154285715) [having an amount due to pay and that the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=477.500094) [shipping status is waiting for payment. If](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=479.90117733333335) [that's the case, we are going to leverage](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=482.53221900000005) [our InvoiceStrategy and generate an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=484.34844400000003) [invoice for this particular order. Then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=487.16801066666676) [we're going to set the ShippingStatus to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=489.37855828571435) [ReadyForShipment. If we still have an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=491.29834400000004) [amount due when we don't have an invoice,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=492.9959551111111) [we are going to set an exception to tell](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=494.48395511111124) [us that we are unable to finalize this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=496.386732888889) [particular order. Now we can call](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=498.486844) [FinalizeOrder. If we set one of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=500.404844) [strategies for how to deliver an invoice,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=502.432644) [we should be able to either get a file, an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=504.537219) [email, or maybe capture the API call.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=508.1595106666667) [Before we can finalize the order, we also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=511.42784400000005) [want to set the particular strategy for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=513.405094) [how to deliver an invoice. This also, of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=515.2955106666667) [course, requires us to have an invoice](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=517.674719) [payment set on our particular order. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=519.4133440000002) [now when we run the application, this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=521.5797011428572) [should generate a file on disk. And you'll](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=523.3095582857143) [notice here that indeed we did get a file](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=525.760844) [created on our disk. I promise that I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=528.0447011428572) [didn't create this myself. We can see that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=530.755344) [the tax amounts are exactly the same. It](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=533.0532884444445) [lists the items that we are purchasing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=535.3771773333333) [with his order. Let's test one of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=537.565844) [other ones. Let's test the email strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=540.2832725714288) [as well. And when we look at that, indeed](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=542.4292725714283) [this did give me an email. So now we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=544.5518439999998) [successfully added a way for us to send an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=547.3750940000003) [invoice to our user depending on the way](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=549.4778440000003) [that they want this to be delivered. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=551.5083440000003) [can set the different invoice strategies](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=554.1704154285715) [depending on how we want this delivered to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=555.745844) [our end users. And inside our order, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=557.4948440000001) [know nothing about the particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=560.4015106666667) [implementation of the different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=561.634844) [strategies. The context, in this case,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=563.700444) [doesn't have to know anything more than](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=565.246219) [simply how to invoke that particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=567.1227011428574) [implementation by leveraging the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=569.533244) [interface. Since these different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=571.7121773333334) [strategies all implement the same](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=573.212244) [interface, we can easily replace the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=575.0452725714287) [concrete implementations in runtime. So,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=577.8935106666668) [again, this shows us that it's making our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=580.5364690000001) [application a lot more extensible. I guess](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=582.6250106666668) [the drawback as with any other pattern is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=585.2740940000001) [that this could add a little bit more](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=587.1493995555555) [complexity to our applications. As with](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=589.415044) [any pattern and practice in any](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=591.870094) [programming language, you have to be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=593.7008440000001) [cautious about the code that you're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=595.044844) [adding. Make sure that the code makes your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=596.7711297142857) [application easier to work with and that it doesn't get in your way](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=3&mode=live&start=598.3598440000001)

[Example: Using Different Shipping Providers](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live)

[In this example, we're going to look at](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=1.3785109999999403) [leveraging different shipping providers.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=3.0015109999999403) [When the order is finalized, we want to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=5.417510999999941) [make sure that we can ship the order. And,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=6.62051099999994) [of course, the user can, depending on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=8.637677666666606) [where they live, choose different shipping](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=10.11631099999994) [providers. So let's jump into Visual](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=12.17326099999994) [Studio and have a look at how we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=13.420844333333271) [implement this using the strategy pattern.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=15.243288777777721) [So again, we're looking at our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=17.63051099999994) [application. Our application is now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=19.415082428571374) [evolving into becoming something that's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=21.19784433333327) [pretty good. We have a good architecture](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=22.950310999999942) [in the application, and we're making sure](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=24.502796714285658) [that we are breaking out dependencies and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=26.250939571428507) [decoupling the different parts of our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=28.90551099999994) [applications. Of course we can probably](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=31.415225285714236) [leverage more patterns in order for us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=32.97493957142852) [decouple our order. But that's outside of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=35.682177666666604) [the scope of this course. So now we are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=37.84217766666659) [leveraging the strategy pattern, and we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=39.93436814285708) [making sure that we can replace](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=41.27226099999994) [functionality in runtime based on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=42.999177666666604) [decisions of our users. This behavioral](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=45.47751099999994) [design pattern is extremely powerful and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=48.721844333333266) [allows us to create extensible and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=51.23908242857137) [testable applications. And being](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=53.52351099999994) [extensible means that I can now add more](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=54.989510999999936) [strategies in our applications without](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=56.91451099999993) [affecting existing implementations. I can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=59.08926099999994) [add an SMS invoicing strategy without](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=62.07351099999993) [affecting email, file, or print-on-demand.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=63.96351099999994) [What we want to add now is a way for us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=66.49751099999995) [work with different shipping providers. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=68.72851099999994) [might support shipping providers, like](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=71.11091099999994) [DHL, FedEx, the United States Postal](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=72.85393957142851) [Service, UPS, and the Swedish Postal](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=75.16651099999994) [Service depending on if your order is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=77.44051099999994) [being sent within Sweden or not. And all](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=79.32851099999993) [these different requirements and policies](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=82.25751099999994) [and validations need to live in our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=83.82065385714279) [strategies in order for us to not clutter](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=86.37676099999995) [the application with logic where it](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=89.20679671428564) [shouldn't live. So we're now going to add](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=91.35051099999994) [a new section for our strategies. We're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=93.68251099999993) [going to add our shipping strategy for our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=95.73236814285708) [particular order. And as we've done](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=98.49301099999994) [previously, we'll start off with the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=100.16011099999996) [interface. This gives us the premise of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=102.0626776666666) [how to implement our concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=104.06076099999999) [implementations. The shipping strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=107.04401099999994) [simply takes the order, which should](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=109.05801099999994) [probably contain information about how](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=111.47271099999996) [this order is going to be shipped. So we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=113.05222528571421) [might select that we want to leverage DHL,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=115.20917766666663) [FedEx, UPS, the Swedish Postal Service, or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=118.47717766666662) [the US Postal Service, and then each](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=120.72622528571422) [concrete implementation of our strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=122.88917766666657) [will take care of communicating with that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=124.94317766666659) [different API. So what's interesting is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=128.42151099999995) [that this strategy will simply communicate](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=130.5355109999999) [with APIs while the sales tax was a way](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=132.49365385714276) [for us to replace computation at runtime,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=135.29717766666656) [and the invoicing strategy was more about](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=137.52201099999994) [persisting the particular invoice. Now our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=140.30484433333322) [shipping strategy will invoke different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=142.68491099999991) [types of APIs. So we're going to go ahead](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=144.78051099999996) [and add the strategies for our different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=147.19251099999994) [shipping providers. And what you'll notice](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=149.57317766666657) [here is that, for instance, with our DHL](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=151.29222528571418) [shipping provider, we simply implement the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=153.45417766666668) [interface IShippingStrategy. It takes the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=155.78367766666656) [order. It creates an HttpClient because](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=158.09551099999996) [most of these APIs are most likely over](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=160.1467967142856) [HTTP. But I'm not going to add an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=163.8725109999999) [implementation for this here. Instead, I'm](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=166.01251099999993) [simply going to print to the console that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=167.19522528571423) [this here is being shipped with DHL. And](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=169.09617766666668) [of course, the same goes for FedEx. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=172.10113599999994) [simply take the order, and we say that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=174.29662211111105) [ship this with FedEx, but we don't have](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=176.66173322222215) [the particular integration with the FedEx](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=178.10351099999994) [API. And honestly, I don't even know if](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=180.74693957142844) [all of these different shipping providers](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=182.4762887777778) [have public APIs. I would expect that they](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=184.4117109999999) [do, but that's really outside of the scope](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=187.501136) [for this course. And then we have the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=190.16238600000003) [implementation for our Swedish Postal](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=192.59351099999995) [Service, also known as PostNord. This here](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=194.13351099999994) [will allow us to ship our order using the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=197.13373322222216) [Swedish Postal Service. Same goes for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=199.97971099999992) [USPS, as well as UPS. So now we have all](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=203.0302609999999) [of these different shipping strategies. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=206.89526099999998) [can make sure that we validate that this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=209.2399554444444) [order can be shipped with this particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=210.84351099999995) [strategy. Maybe UPS requires us to also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=212.99338599999987) [pass the weight of the particular order.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=215.31951099999995) [Then we could make sure that we have this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=218.07751099999993) [and that we summarize the weight of each](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=219.81851099999994) [line item and passed this to the API,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=222.25551099999993) [while other APIs might not require that.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=225.08251099999995) [So we can be very particular about the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=228.03051099999993) [implementation for the different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=230.24151099999995) [strategies within this little scope that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=232.08791099999996) [now doesn't have to require us to extend](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=234.2130824285713) [our particular order with this concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=236.90126100000003) [implementation. What we do want to extend](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=240.32511099999994) [our order with is our IShippingStrategy.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=242.545511) [We need our context, which is the order,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=245.28051099999993) [to know that we have an IShippingStrategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=247.98651099999995) [that you can leverage so that the order](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=250.54551099999995) [can say that it wants to ship this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=252.45306655555547) [particular order using one of our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=254.02151099999992) [strategies. Now that our order has a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=257.18067766666667) [ShippingStrategy, we can leverage this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=259.98251099999993) [when we finalize the order. So after we've](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=261.4487332222221) [sent the invoice, and we know that there's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=263.5795109999999) [no longer anything left to pay, we can say](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=265.4850110000001) [that we want to ship the order. And now if](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=267.24691099999995) [we go into our program, the idea here, of](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=269.1625109999999) [course, is that when we call](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=271.3558443333332) [FinalizeOrder, this will automatically be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=273.57117766666664) [marked as being shipped as long as we set](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=275.0510824285715) [the ShippingStrategy. So on our particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=277.4947967142857) [order, we are now setting the different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=279.67451099999994) [strategies based on some user input. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=282.49451099999993) [I've made some changes to the program.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=285.4213859999999) [I've made sure that we can require the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=287.6395109999999) [user to first specify our origin country,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=290.14795544444456) [the destination, choosing one of the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=292.94551099999995) [shipping providers, choosing a delivery](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=294.9515109999999) [option for how they want the invoice to be](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=296.8605109999999) [delivered. And based on that, we then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=299.4498109999997) [extract a strategy for each different type](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=301.4482609999999) [of strategy that our order supports. So](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=303.86267766666657) [for the origin or the destination, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=307.95579671428567) [choose a SalesTaxStrategy. For the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=310.40051099999994) [invoicing strategy, we choose one based on](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=312.6097967142856) [the invoiceOption, and the same goes for](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=314.6029395714285) [the ShippingStrategy. We choose one based](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=316.94251099999997) [on the provider. And if we check these](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=318.88251099999997) [different implementations, so now we are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=320.90717766666666) [making sure that if the origin is Sweden,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=322.7726538571427) [we use and apply the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=324.65817766666646) [SwedenSalesTaxStrategy. If it's USA, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=326.95384433333334) [apply the USAStateSalesTaxStrategy.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=329.39617766666663) [Otherwise, we'll simply return unsupported](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=332.8745109999999) [region. For the ShippingStrategy, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=336.2711776666665) [simply say that if the provider is 1, 2,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=338.2018443333333) [3, 4, or 5, we return that particular](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=341.548601909091) [strategy. So we either have the Swedish](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=344.997111) [Postal Service, DHL, USPS, FedEx, or UPS.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=346.7622252857141) [And the same goes for our invoicing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=351.56051099999996) [strategy. We can use email, file, or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=353.629011) [print-on-demand. So if we run the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=357.15851099999986) [application and say that we're going to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=358.7819554444444) [send this from Sweden to Sweden, we're](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=360.13251099999997) [going to select that we want to leverage](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=361.4752609999999) [the Swedish Postal Service, PostNord, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=363.9021776666666) [then we're going to choose that we want to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=365.9972252857142) [deliver this as a file. We can see here](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=368.4011776666667) [that it's now telling us that the total](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=370.59651099999996) [tax is 25 kroners. The order is now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=372.61665385714275) [shipped with PostNord. And this also](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=375.84008242857135) [generated a file telling us that we now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=378.1992609999999) [have a new invoice. So as this application](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=381.05722528571425) [grew throughout our course, we saw that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=383.58751099999995) [can refactor existing code in the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=386.53636814285716) [application to apply a strategy pattern](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=388.8845109999999) [for different types of calculations, like](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=391.13951099999997) [when we calculated the tax. We can replace](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=393.47579671428565) [the algorithm that calculates the tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=396.75251099999997) [based on the different countries easily](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=398.53965385714275) [when we apply the strategy pattern. And](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=400.5747609999999) [for new functionality, it makes it a whole](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=403.70163599999995) [lot easier if we start off with the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=406.03251099999994) [interface and look at how we want to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=407.53651099999996) [expose the shared functionality. And then](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=409.30717766666675) [we can simply work with these different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=412.0905109999999) [strategies for how to implement different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=413.50784433333325) [things. If we work with persisting data or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=415.33234433333325) [if we're working with API calls, the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=417.4092252857143) [strategy pattern is extremely beneficial.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=419.719511) [Imagine running tests for this. We could](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=422.76851099999993) [simply replace the strategy for creating](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=424.9017967142856) [an invoice or shipping with a mocked](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=426.5409395714285) [version of that strategy to make sure that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=428.6325109999999) [our entire order was processed](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=431.502261) [accordingly. So now you've seen how you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=434.16163600000004) [can apply the strategy pattern in your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=435.82217766666645) [applications, how you can refactor an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=438.56491099999994) [application to leverage this pattern and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=440.2302252857142) [make it more extensible, as well as](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=441.75793957142844) [decoupling your code to make it more maintainable.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=4&mode=live&start=444.0035109999999)

[Existing Implementations: Array.Sort](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live)

[Let's have a look at an existing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=0.9601669999998994) [implementation in .NET. This will give you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=2.5971669999998994) [an idea of where this is applied in a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=5.183566999999901) [different scenario. We're inside Visual](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=7.831966999999899) [Studio again, and what we're looking at is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=9.5933669999999) [a collection of orders. They're all being](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=11.571416999999903) [shipped from different origins, and I want](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=13.546452714285614) [to make sure that we can sort this array](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=15.275041999999901) [of orders depending on different criteria.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=17.520916999999905) [The user that's looking at the orders](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=20.1491669999999) [might want to sort them depending on the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=22.07854199999991) [origin, destination, the total amount, and](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=25.27929199999989) [so forth. If we run the application, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=27.59288128571418) [can see that we have an order for Sweden,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=29.477833666666573) [US, Sweden, US, and then Singapore. We](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=32.2296669999999) [don't want to sort this and then we print](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=34.98005588888879) [the array again. But since we're not doing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=36.2104169999999) [any sorting, this will be the same](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=38.210309857142754) [structure as we see at the top. So in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=39.93961144444435) [order for us to sort this array, we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=41.871166999999886) [leverage Array.Sort. What's interesting](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=44.52250033333324) [with Array.Sort is that it will do the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=46.03483366666657) [sorting in place, and it takes a few](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=48.44530985714275) [different overrides. We can pass an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=50.860309857142745) [IComparer, which will override the way](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=52.7831669999999) [that it compares the different elements.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=54.24259557142847) [If the order doesn't implement an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=56.3771669999999) [interface to make itself comparable to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=58.12659557142848) [another order, Array.Sort requires us to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=60.42102414285706) [pass this particular strategy of how to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=62.610833666666565) [compare two different orders with each](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=66.09516699999992) [other. So we're going to pass our orders](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=68.89356699999988) [collection here. And then what I've gone](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=70.5401669999999) [ahead and done is that I've implemented](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=71.9041669999999) [two different comparers. I have one that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=73.51416699999993) [will allow us to compare the order amount.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=76.1409447777777) [The particular implementation of an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=78.9831669999999) [IComparer isn't really important. What's](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=80.2851669999999) [important here is that we leverage the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=82.5221669999999) [interface IComparer of an order. Then we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=84.41966699999989) [have an OrderOriginComparer, which will](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=87.45236699999991) [simply compare the first letter of where](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=89.22173842857134) [our order is originating from. Alright, so](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=91.28545271428561) [then we can pass one of these different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=93.54594477777766) [comparers. If we now run the application,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=95.3676669999999) [you'll see that it sorted our array. It](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=97.2851669999999) [now made sure that Singapore is on the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=100.0561669999999) [top. We're only sorting by the first](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=101.58416699999992) [letter in this case. We could, of course,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=103.93891699999989) [compare every character if they're the](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=105.7811669999999) [same and so forth. But to keep it simple,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=107.38059557142844) [we're simply sorting by the first letter.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=109.6121669999999) [And then we can also say that we want to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=112.0581669999999) [replace this IComparer with a different](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=113.2821669999999) [type of strategy for how we want to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=116.8461669999999) [compare two orders to each other. So we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=118.90216699999993) [can use the OrderAmountComparer. and I](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=122.08383366666656) [don't have any items on my order, so they](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=123.79583366666655) [will all be in the same sequence as they](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=126.09796699999988) [were at the top. But what this illustrates](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=128.0793669999999) [is that whenever we can pass an interface](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=130.77788128571422) [that allows us to override functionality](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=133.28405588888876) [like with this comparer here, we can pass](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=135.81036699999993) [a strategy for how two things are compared](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=139.32104199999992) [to each other. In our previous examples,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=141.72704199999984) [we looked at how we can replace](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=143.63066699999985) [computation, API calls, or persisting](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=146.56516699999986) [something. So in essence, the strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=149.52083366666656) [pattern allows us to replace functionality](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=151.7857384285714) [at runtime based on behaviors of our](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=154.77516699999987) [users. And even though we don't see any](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=158.0585003333332) [naming of a strategy here, this here is,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=160.0106114444443) [in fact, leveraging the strategy pattern.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=162.12691699999988) [So whenever you can inject an interface to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=165.4411669999999) [allow change of behavior, you are](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=167.1641669999999) [leveraging the strategy pattern, which is](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=169.85283366666653) [why this is one of the most commonly used patterns that you will encounter.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=5&mode=live&start=172.0881669999999)

[Summary and Final Words](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live)

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The premise,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=9.526730999999684) [of course, is that whenever we find an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=11.78710599999968) [interface that will allow us to change](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=13.792605999999678) [some behavior, we can inject our own](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=16.304105999999678) [implementation and make sure that we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=18.780355999999678) [provide the strategy for how to solve that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=20.68235599999968) [particular problem. We saw that we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=23.21335599999968) [decouple the context and the concrete](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=25.99135599999968) [implementations. We refactored an](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=28.792498857142544) [application to leverage the strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=30.312855999999684) [pattern. This makes sure that we can now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=32.50835599999968) [have an application that is more testable,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=34.58746711111078) [maintainable, and honestly, as with any](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=37.860355999999676) [pattern that we apply, it makes it a lot](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=40.77535599999968) [more fun to work with as our applications](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=42.63435599999968) [don't end up in a mess of spaghetti code.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=45.12435599999968) [It allows for a cleaner implementation in](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=48.38235599999968) [the context. Our order class, which we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=50.36535599999968) [looked at, which was the context in this](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=52.69535599999968) [case, allowed us to now approach these](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=54.91010599999967) [different strategies in a much cleaner](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=57.44252266666635) [manner than when we had all the code](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=59.28823099999968) [inside that context. We saw that we can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=61.30585599999968) [easily extend with additional strategies](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=63.663855999999676) [without affecting current implementations.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=65.28835599999968) [If you want to add more shipping providers](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=67.78135599999968) [or more ways for delivering an invoice or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=69.65035599999968) [new countries that have different tax](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=72.61135599999967) [calculations, you can simply add that to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=74.69335599999968) [the project without affecting your](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=77.99435599999968) [currently implemented strategies. This](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=80.83235599999968) [makes it easier for you to develop new](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=83.90446711111079) [strategies, write tests for them, and make](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=85.76135599999968) [sure that they work before you add them or](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=88.03057822222189) [apply them in your applications. It does](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=90.21892742857109) [make testing a lot easier as you can now](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=92.42413377777746) [write mocked implementations that you can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=94.82535599999967) [inject whenever you see one of these](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=96.86835599999968) [interfaces being exposed. Finally, we](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=98.88160599999968) [looked at identifying existing](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=101.24135599999968) [implementations and where you have used](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=102.64735599999968) [this pattern before. If you've been](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=104.83335599999968) [working with C# and .NET for a while,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=107.22402266666636) [you've most likely leveraged interfaces.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=110.20907028571398) [Whenever you leverage an interface, you](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=112.82335599999968) [can say that you leverage the strategy](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=114.79960599999968) [pattern because it allows you to replace](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=116.55835599999968) [the functionality at runtime. With that](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=118.83035599999968) [being said, thank you so much for taking](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=121.7495782222219) [the time to take this course. We've](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=123.6706417142854) [covered this amazing pattern and how to](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=125.69964171428539) [apply that in your applications. Hopefully](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=127.64968933333301) [by now, you get some ideas of how you can](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=130.10891155555524) [refactor your applications, and this will](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=133.17455599999965) [take your development experience to a](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=135.4778559999997) [whole new level. My name is Filip Ekberg,](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=137.37435599999964) [and thank you so much for taking this course.](https://app.pluralsight.com/player?course=c-sharp-design-patterns-strategy&author=filip-ekberg&name=9c352d9a-5380-4bc7-8139-06568d8881b6&clip=6&mode=live&start=139.6209115555552)