Working with C# Records

The Case for Immutability

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Overview

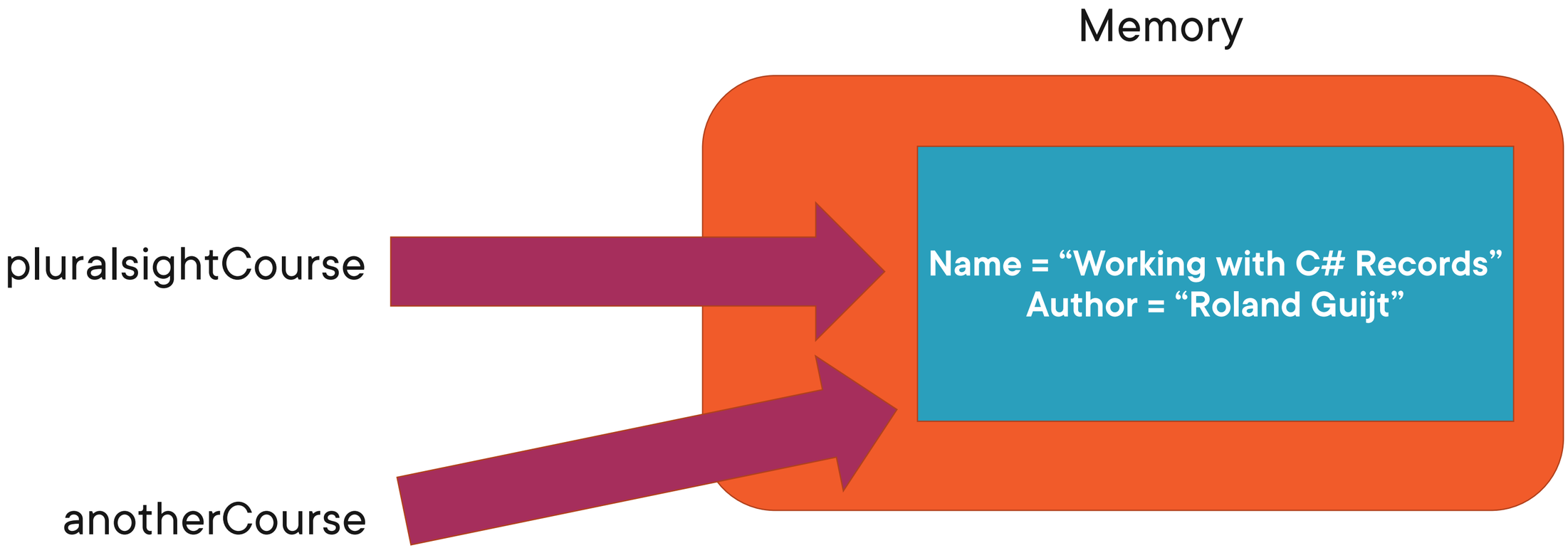
Classes and reference types

Comparing Records and Classes

Why immutability is important

https://dot.net

Reference Types

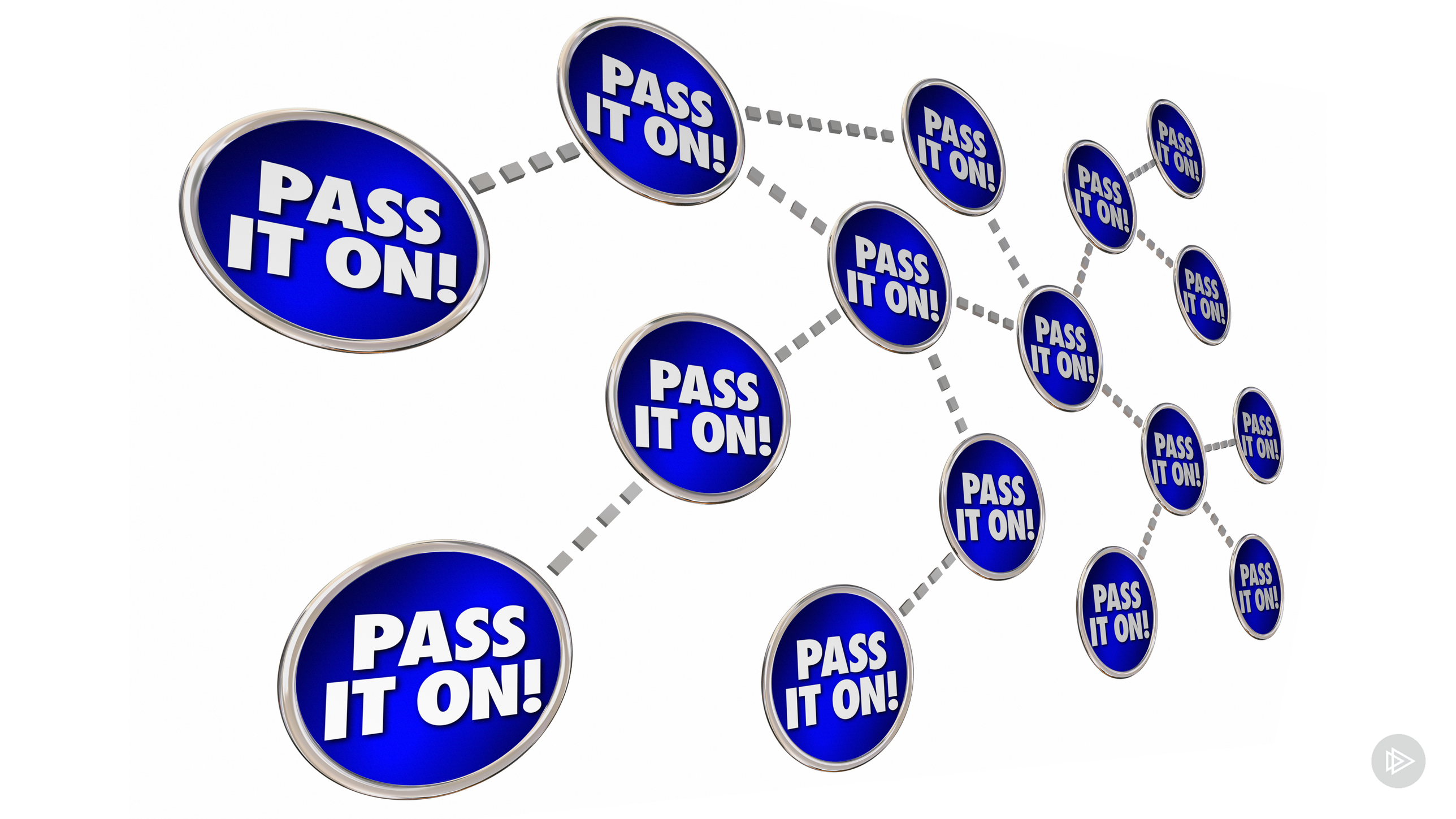


Reference Types

Alternative: value type

More efficient than value types because copying isn't necessary

A Record instance is Immutable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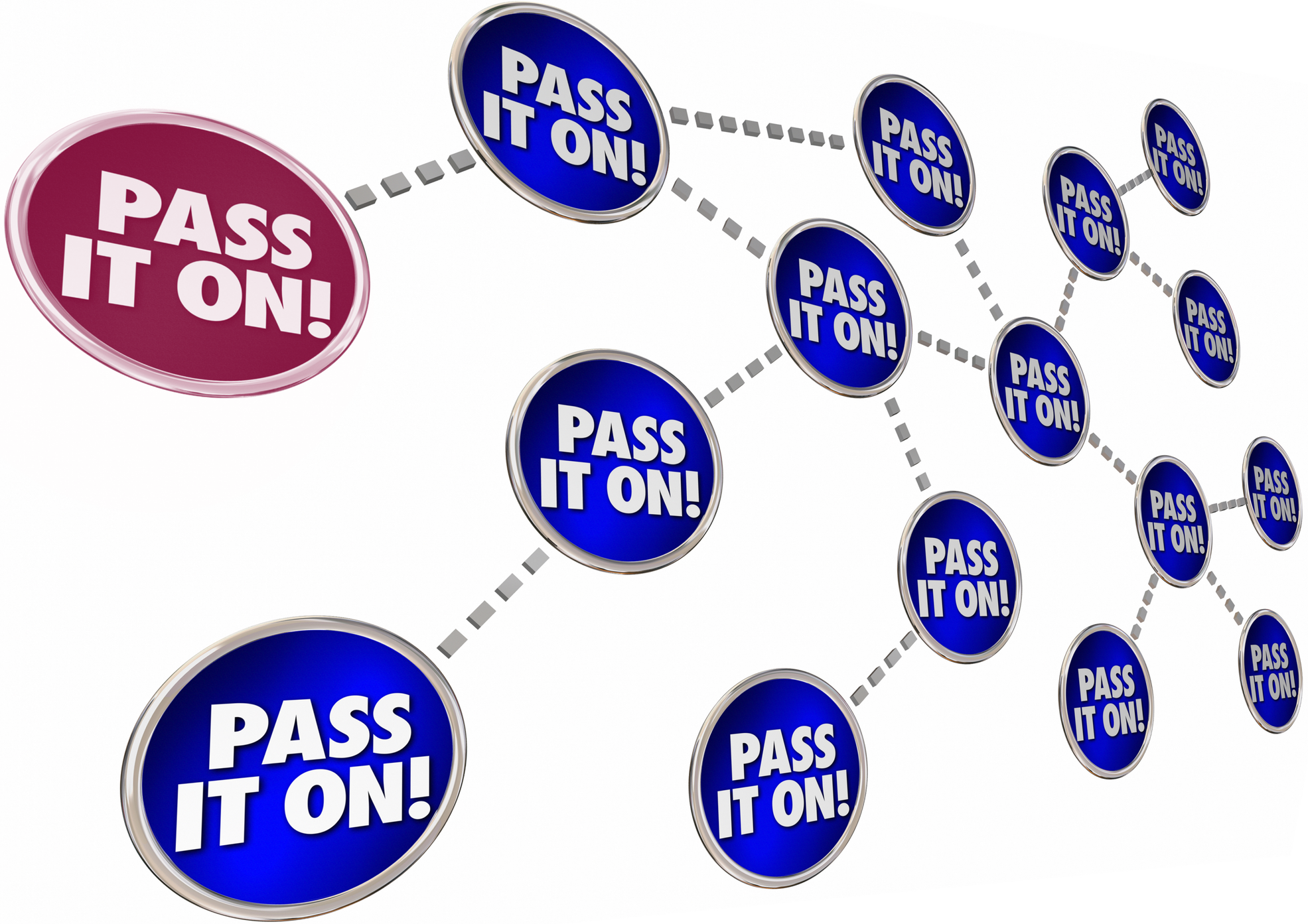
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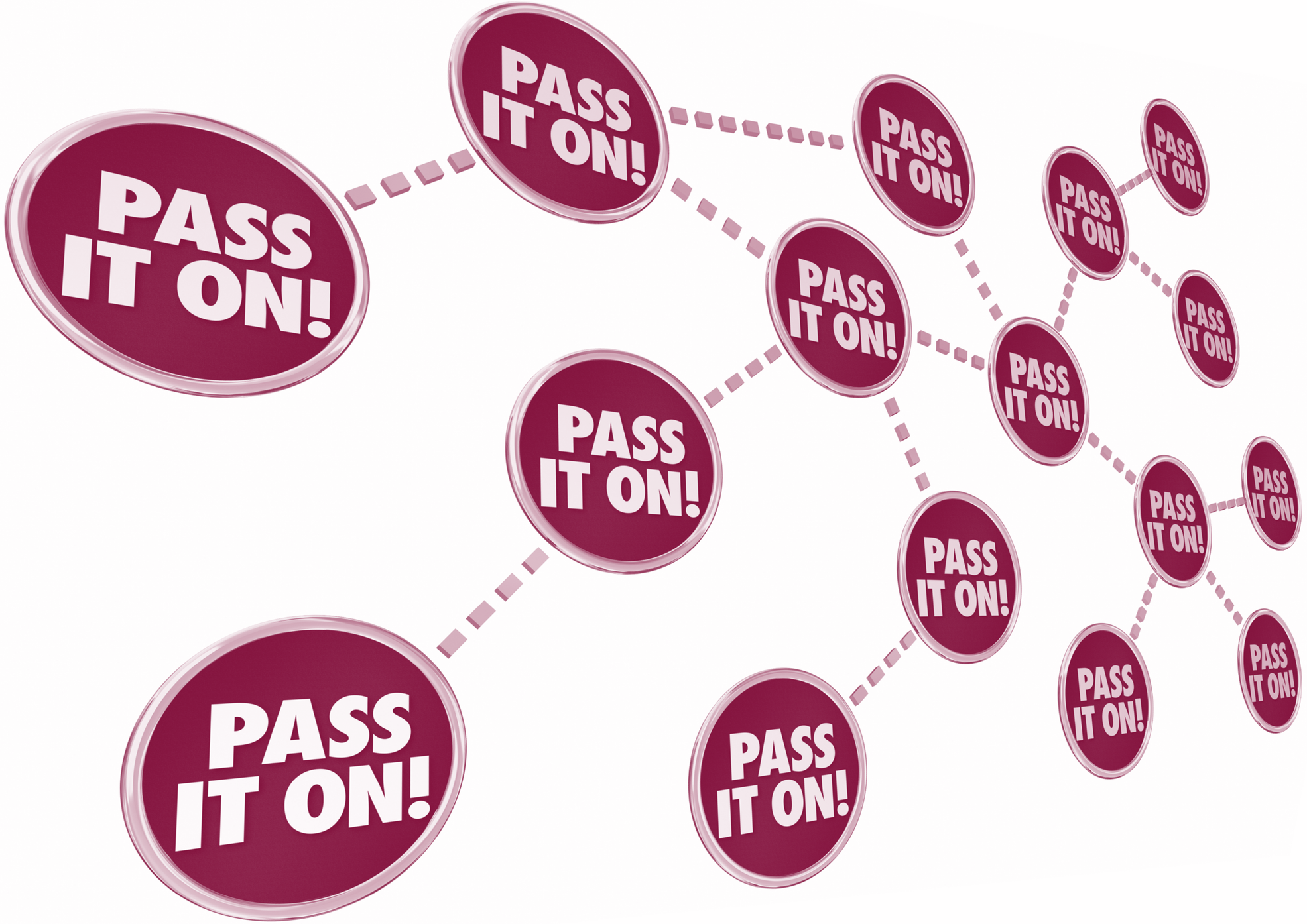
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Immutability

Other languages have native support

C# was not very good at it in the past

That changed

With the introduction of Records

Objects that shouldn’t change
shouldn’t be changeable

https://github.com/RolandGuijt/ps-globoticket-csharp-records

GloboTicket Demo Application

Created with ASP.NET Core and Blazor

But.. I'm not into that yet

Yet!

Using the code to prove the point of immutability and as a real-world application to apply records to

Understanding ASP.NET Core

Building Web Applications with Blazor

GloboTicket Achitecture

Do the properties of a DTO need to change?

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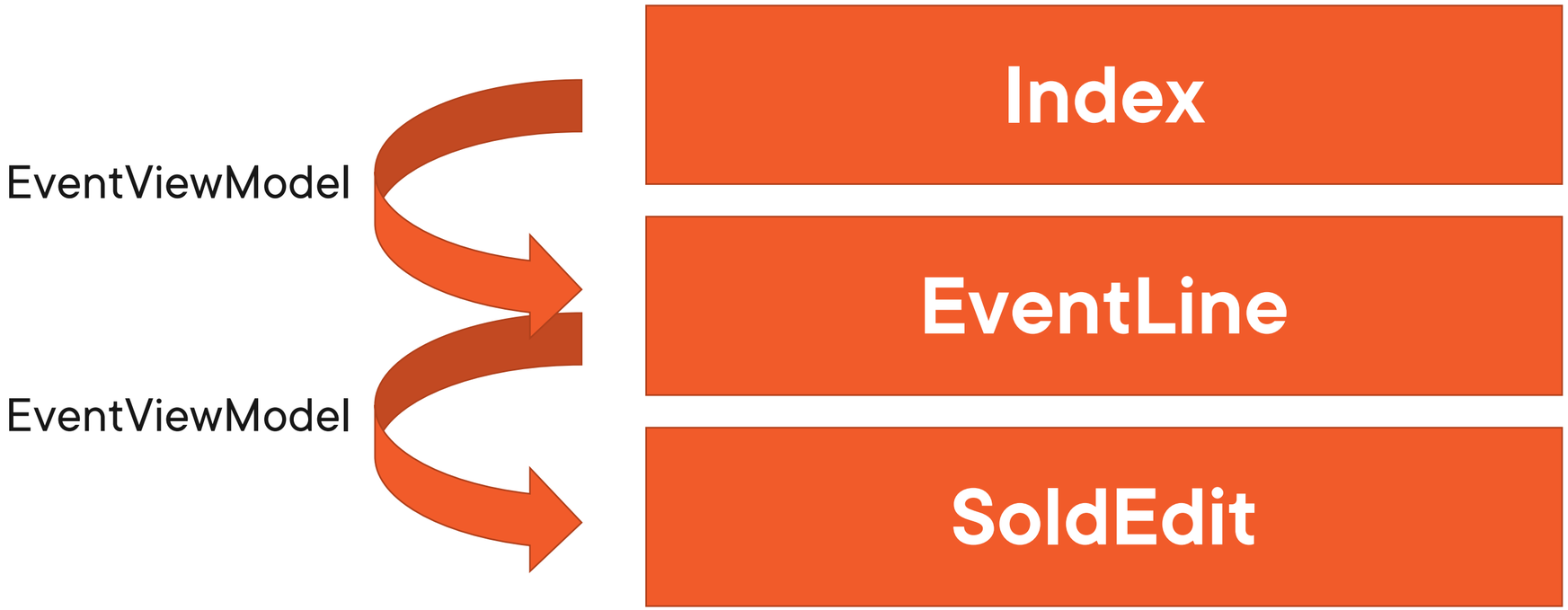
No

Why are the DTOs immutable?

Because they shouldn’t change

Mutability just creates vulnerability to bugs

GloboTicket Application Components



How to prevent this type of problem?

Apply immutable types

Summary

Objects that shouldn't change shouldn't be changeable

Records help to achieve immutable objects

Immutability makes applications less sensitive to bugs and more maintainable