COSMO CONSULT
Business-Software for People

INTERFACES IN AL / BUSINESS CENTRAL

Tobias Fenster, May 18 2020

COSMO CONSULT Group

AGENDA

Why does it matter?

How is it built?

Go for it!

WHY INTERFACES? → COMPONENTIZATION!

Price calculation with forecast	

The base application

1. Define a component
→ Describe the purpose (what does it do?), not the implementation (how is it done?)
→ Allow to think more easily and clearly about the architecture of your solution and how different parts (components...) interact

2. Replace a component (runtime / design time)
→ Allow to switch implementation very easily (German tax calculation vs. Danish tax calculation, standard price calulation vs. advanced price calculation)
→ Allow to override standard code by replacing the whole component

3. Extend a component
→ Add functionality

DEMO

Define the interface

Implement the interface

Create the implementation list and handler

Use the interface

Add a new implementation

WHY INTERFACES? → COMPONENTIZATION!

Price calculation
with forecast

The base application

1. Define a component
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INTERFACES – DECOUPLING

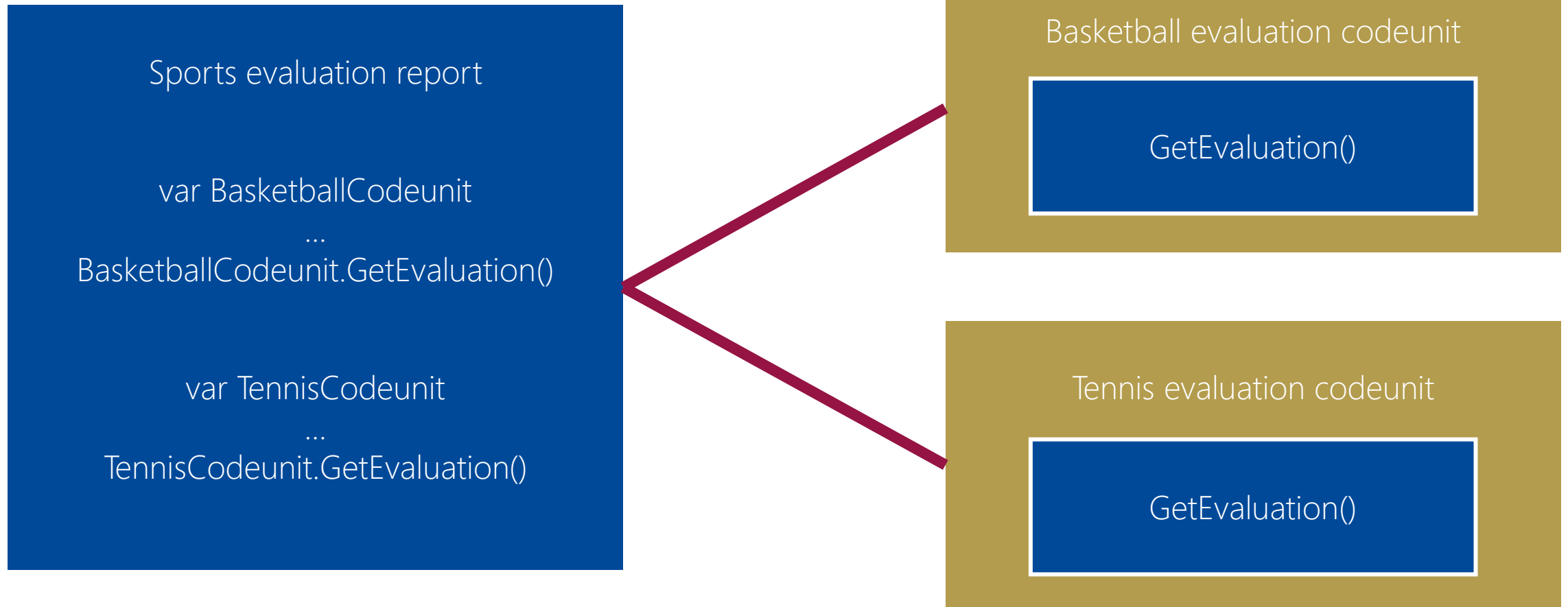Sports evaluation report

GetBasketballEvaluation()

GetTennisEvaluation()

Basketball evaluation codeunit

Tennis evaluation codeunit

INTERFACES – DECOUPLING

Sports evaluation report

var BasketballCodeunit
…
BasketballCodeunit.GetEvaluation()

var TennisCodeunit
…
TennisCodeunit.GetEvaluation()

Basketball evaluation codeunit

GetEvaluation()

Tennis evaluation codeunit

GetEvaluation()

INTERFACES – DECOUPLING

Sports evaluation report

var BasketballCodeunit
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BasketballCodeunit.GetEvaluation()

var TennisCodeunit
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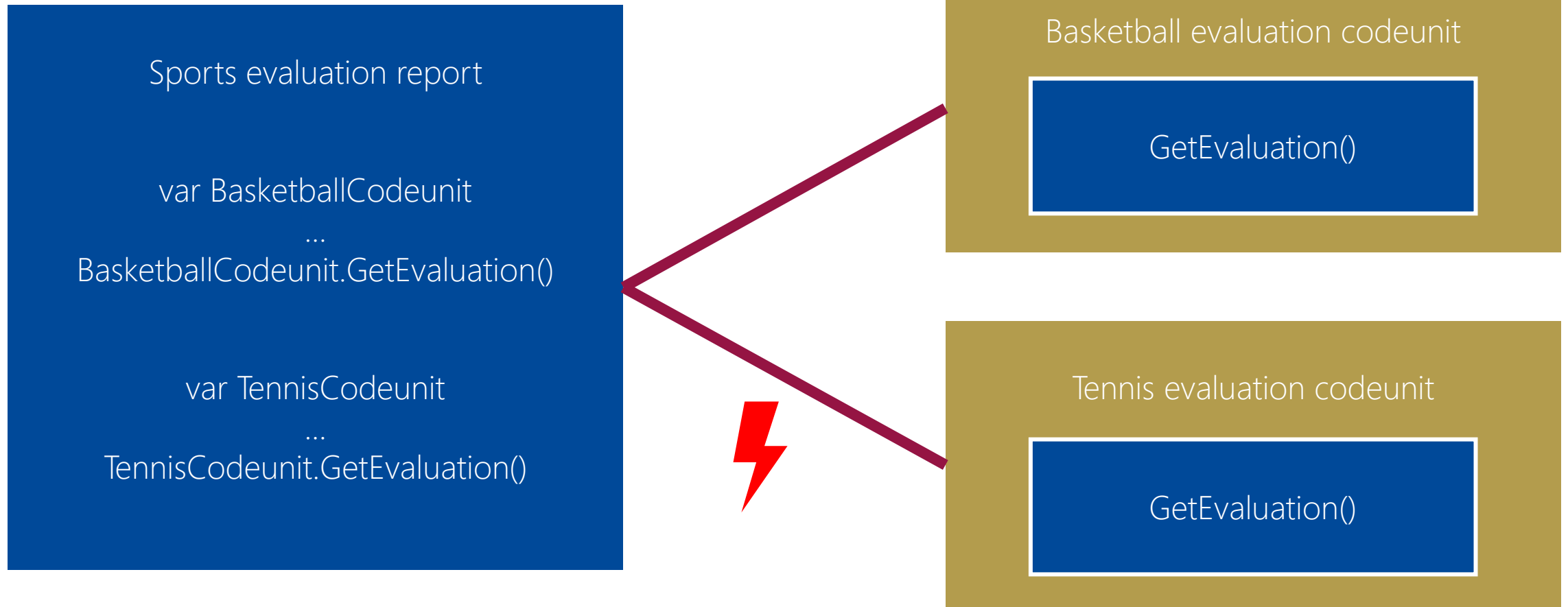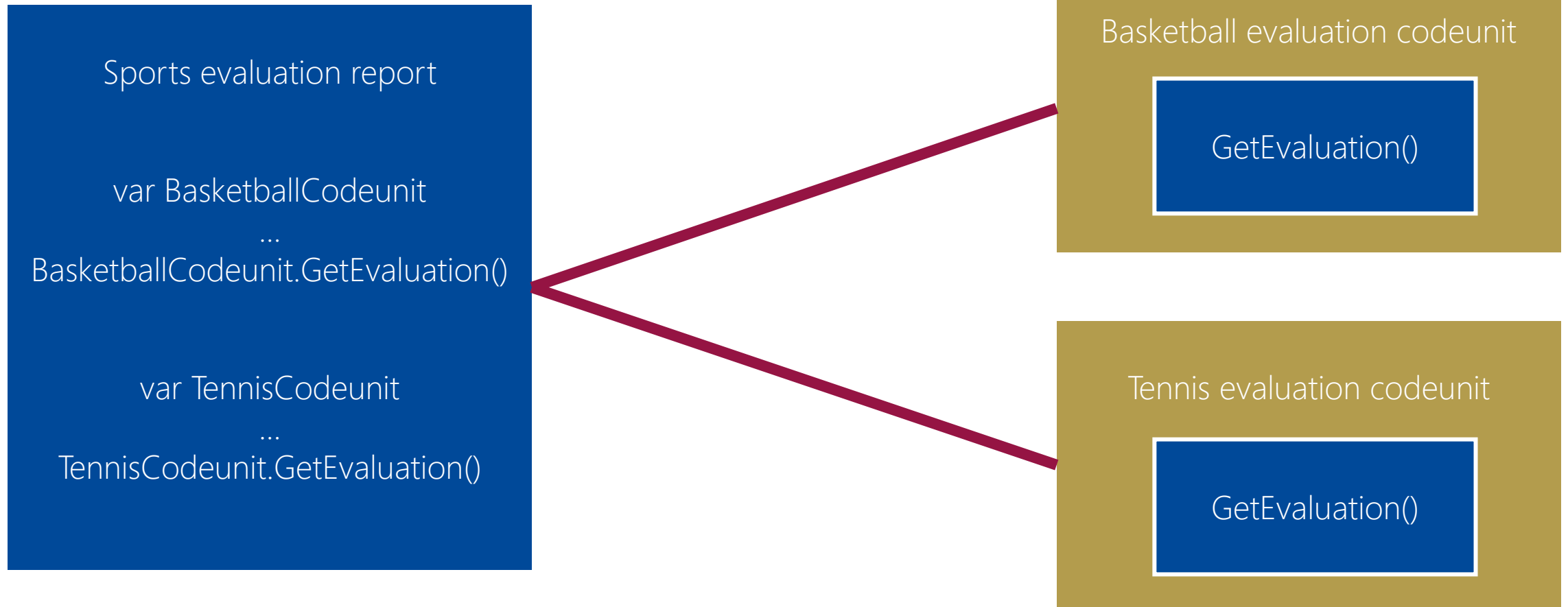TennisCodeunit.GetEvaluation()

Basketball evaluation codeunit

GetEvaluation()

Tennis evaluation codeunit

GetEvaluation()

INTERFACES – DECOUPLING

INTERFACES – DECOUPLING

Sports evaluation report

var BasketballCodeunit
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BasketballCodeunit.GetEvaluation()

var TennisCodeunit
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Interface
GetEvaluation()

Implementation list

Calling mechanism /
implement. selection

Basketball evaluation codeunit

GetEvaluation()

Tennis evaluation codeunit

GetEvaluation()

INTERFACES – DECOUPLING

Sports evaluation report

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Basketball evaluation codeunit

GetEvaluation()

Tennis evaluation codeunit

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INTERFACES – DECOUPLING

Sports evaluation report

var EvaluationInterface
...
EvaluationInterface.GetEvaluation()

Interface
GetEvaluation()

Implementation list

Calling mechanism /
implement. selection

Basketball evaluation codeunit

GetEvaluation()

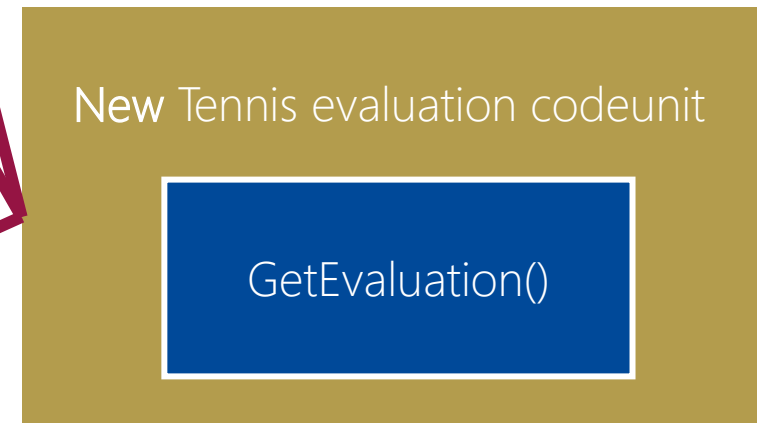Tennis evaluation codeunit

GetEvaluation()

WHY DECOUPLING? REMOVING

Sports evaluation report

var EvaluationInterface
...
EvaluationInterface.GetEvaluation()

Interface
GetEvaluation()

Implementation list

Calling mechanism /
implement. selection

Basketball evaluation codeunit

GetEvaluation()

Tennis evaluation codeunit

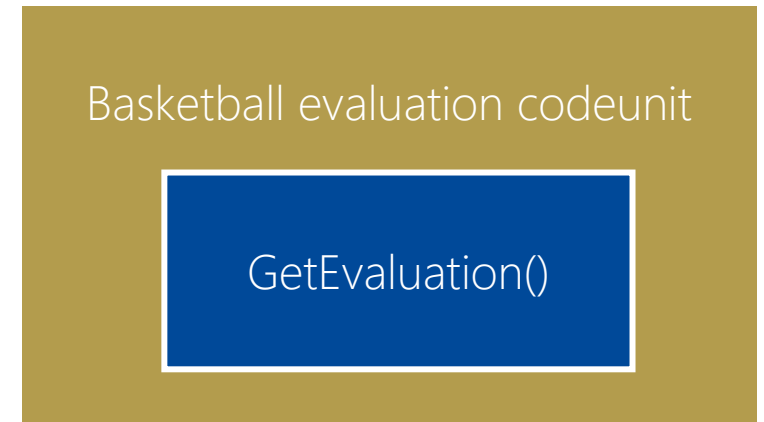GetEvaluation()

WHY DECOUPLING? REPLACING

Sports evaluation report

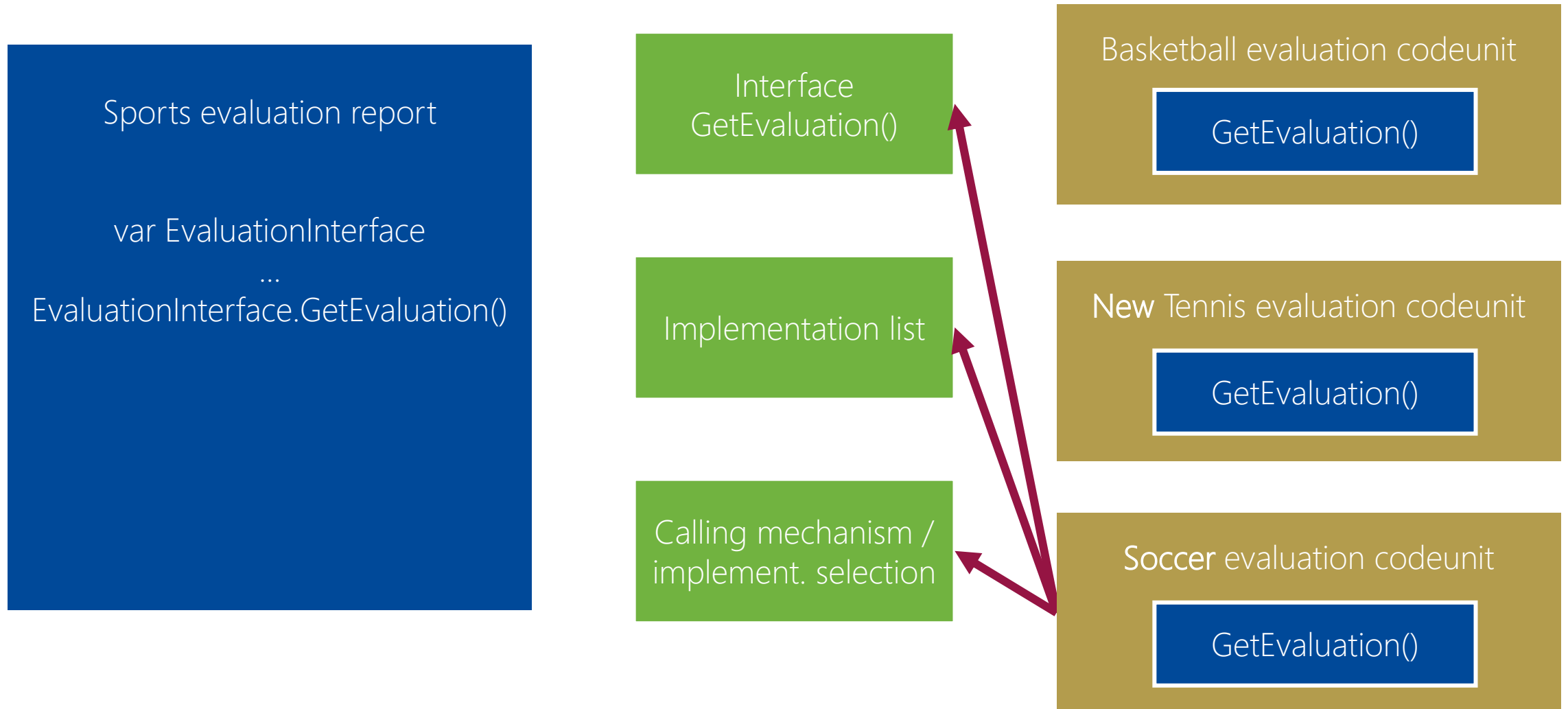var EvaluationInterface
...
EvaluationInterface.GetEvaluation()

Interface
GetEvaluation()

Implementation list

Calling mechanism /
implement. selection

Basketball evaluation codeunit

GetEvaluation()

New Tennis evaluation codeunit

GetEvaluation()

WHY DECOUPLING? ADDING

Sports evaluation report

var EvaluationInterface
…
EvaluationInterface.GetEvaluation()

Interface GetEvaluation()

Implementation list

Calling mechanism / implement. selection

Basketball evaluation codeunit

GetEvaluation()

New Tennis evaluation codeunit

GetEvaluation()

Soccer evaluation codeunit

GetEvaluation()

WHY DECOUPLING? EXTENDING

Sports evaluation report

var EvaluationInterface
...
EvaluationInterface.GetEvaluation()
EvaluationInterface.GetGraph()

Interface
GetEvaluation()
GetGraph()

XY evaluation codeunit

GetEvaluation()

GetGraph()

DEMO

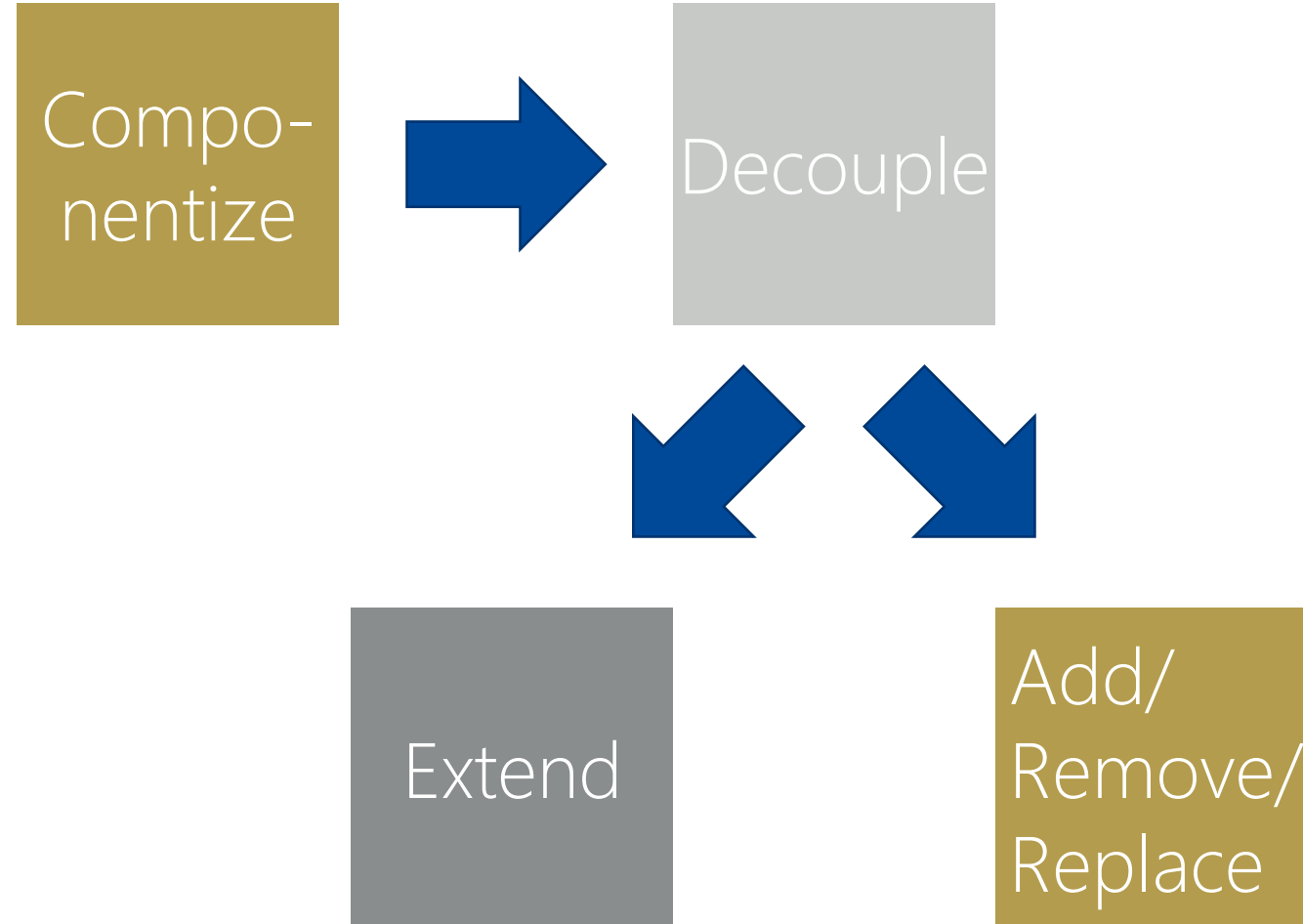Define the interface

Implement the interface

Create the implementation list and handler
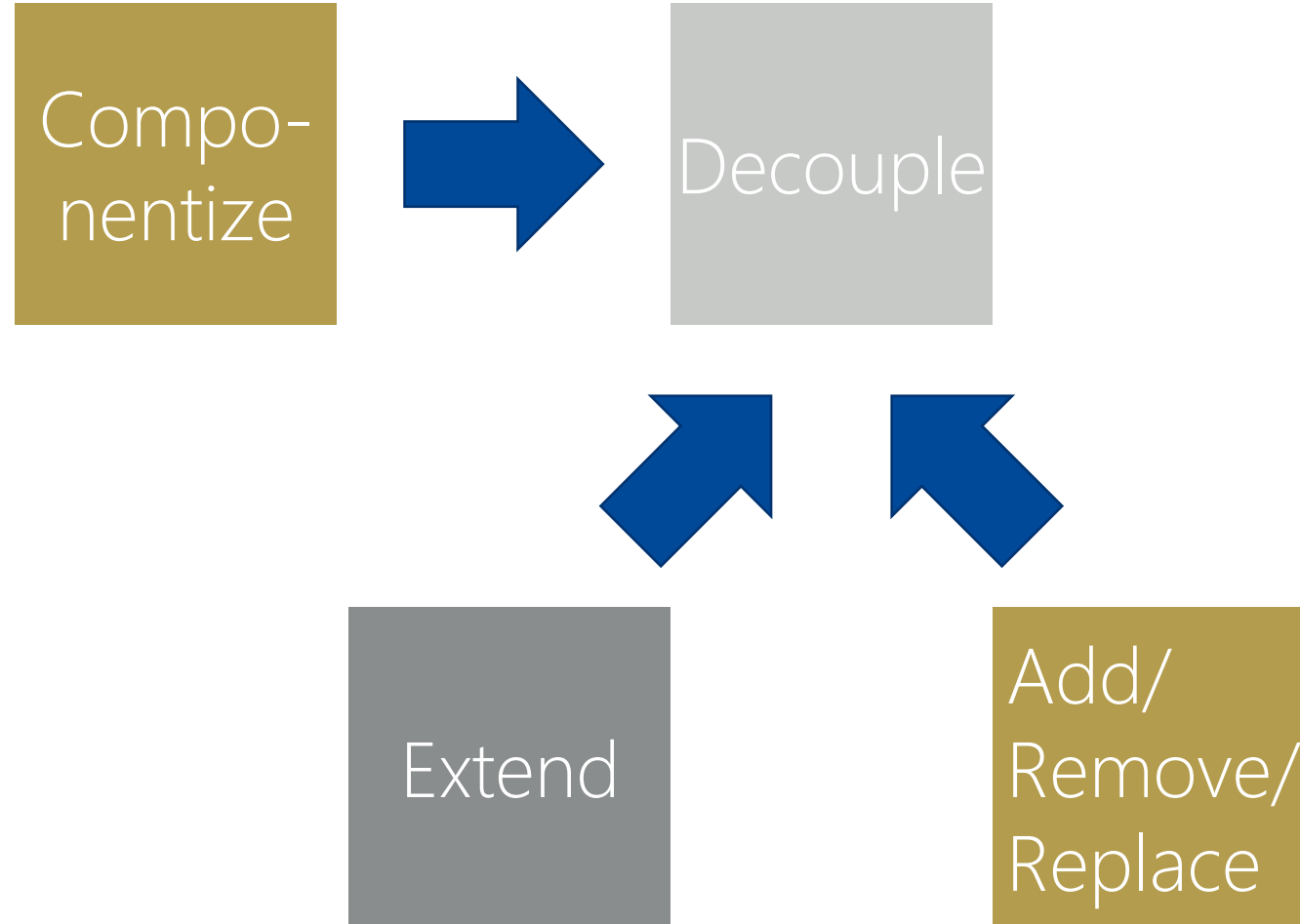
Use the interface

Add a new implementation
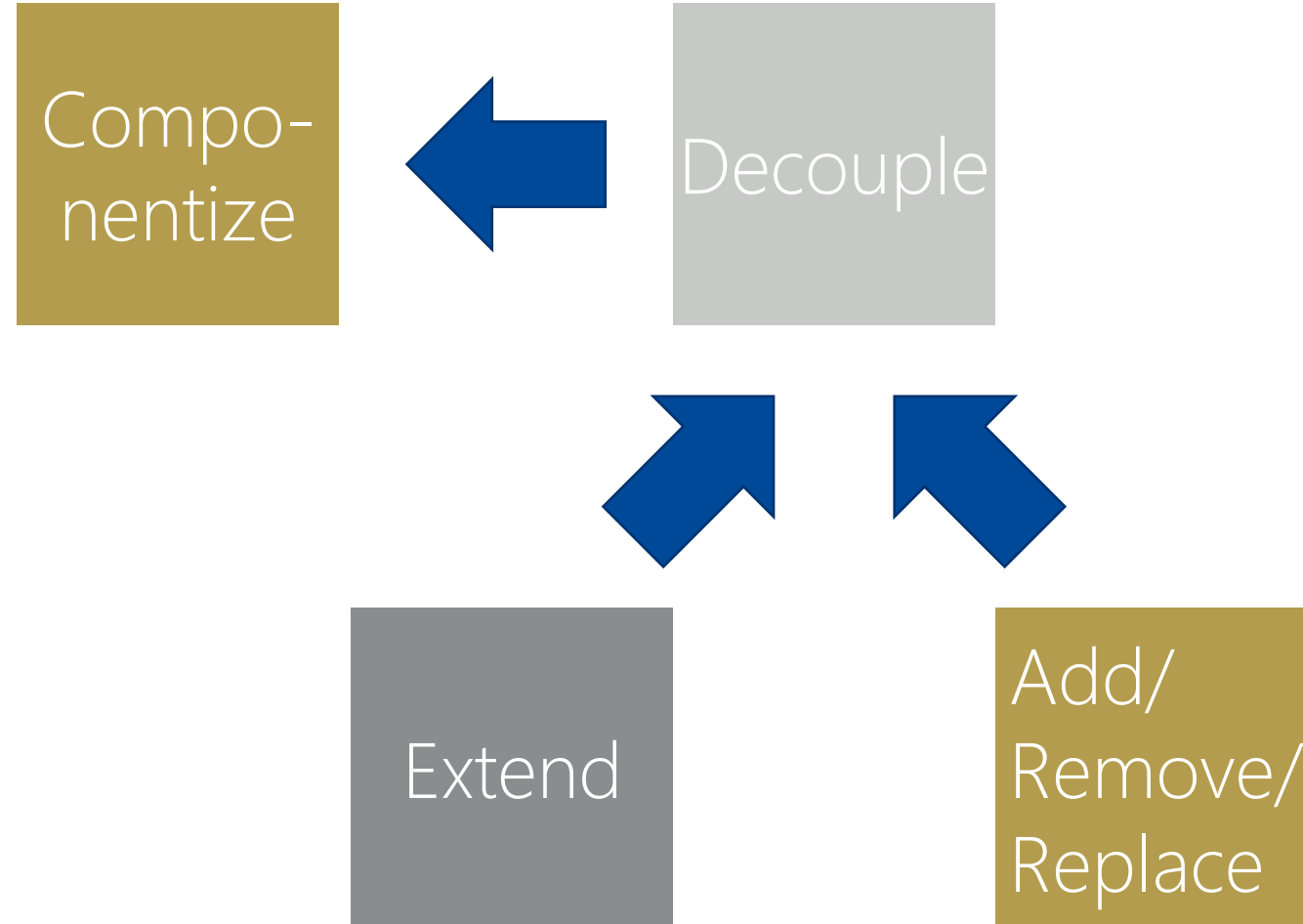
RECAP: INTERFACES IN AL / BC – WHY

Compo-
nentize

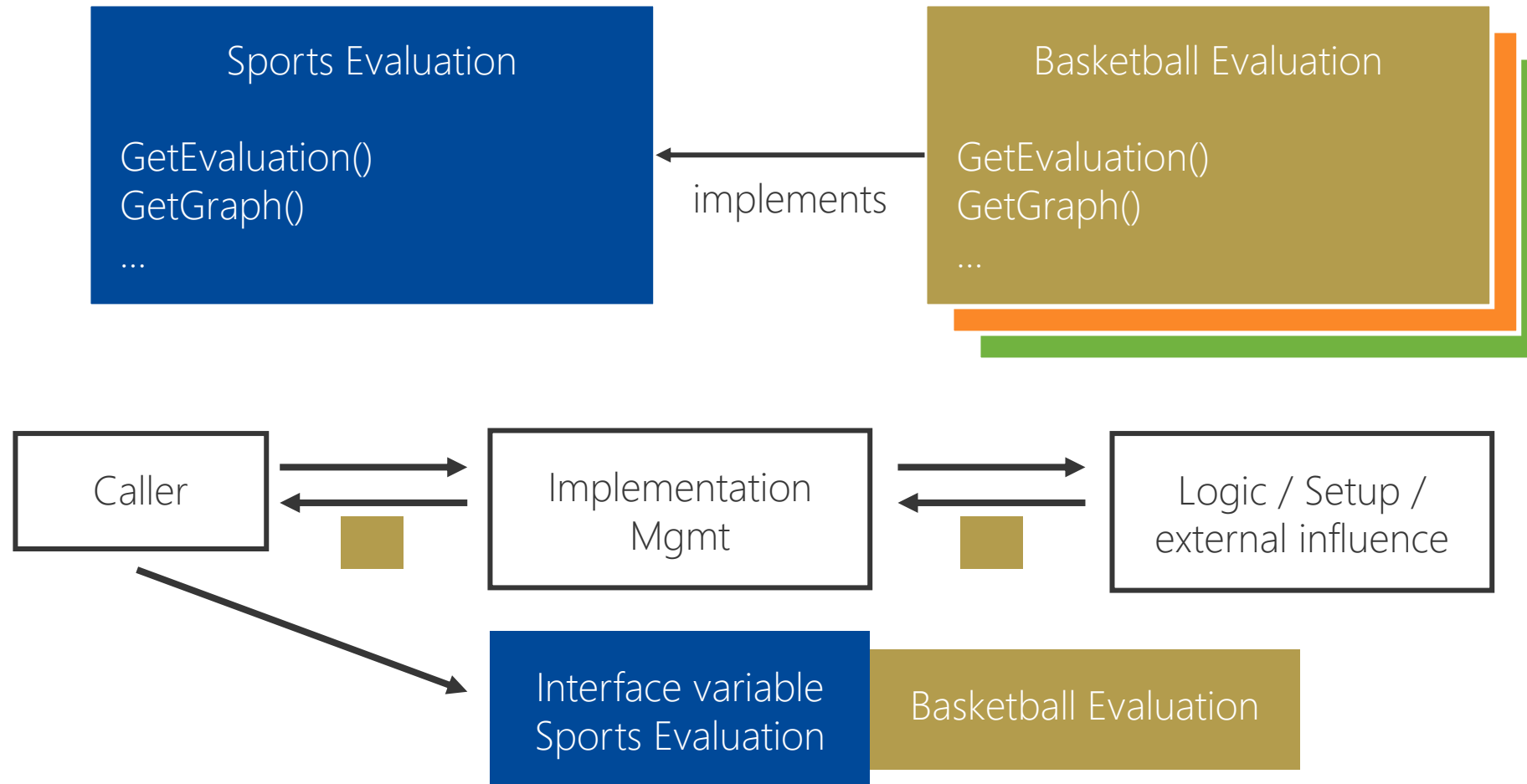Decouple

Extend

Add/
Remove/
Replace

RECAP: INTERFACES IN AL / BC – WHY

Compo-nentize

Decouple

Extend

Add/ Remove/ Replace

RECAP: INTERFACES IN AL / BC – WHY

RECAP: INTERFACES IN AL / BC – HOW

Sports Evaluation

GetEvaluation()
GetGraph()

...

← implements

Basketball Evaluation

GetEvaluation()
GetGraph()

...

Caller → Implementation Mgmt → Logic / Setup / external influence

Interface variable
Sports Evaluation

Basketball Evaluation

More information:
Session on interfaces at the 2020 wave 1 virtual event for BC – aka.ms/virtual/businesscentral/2020rw1