

# Course Summary

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@EltonStoneman



**pluralsight**   
hardcore dev and IT training

# Why write this course?

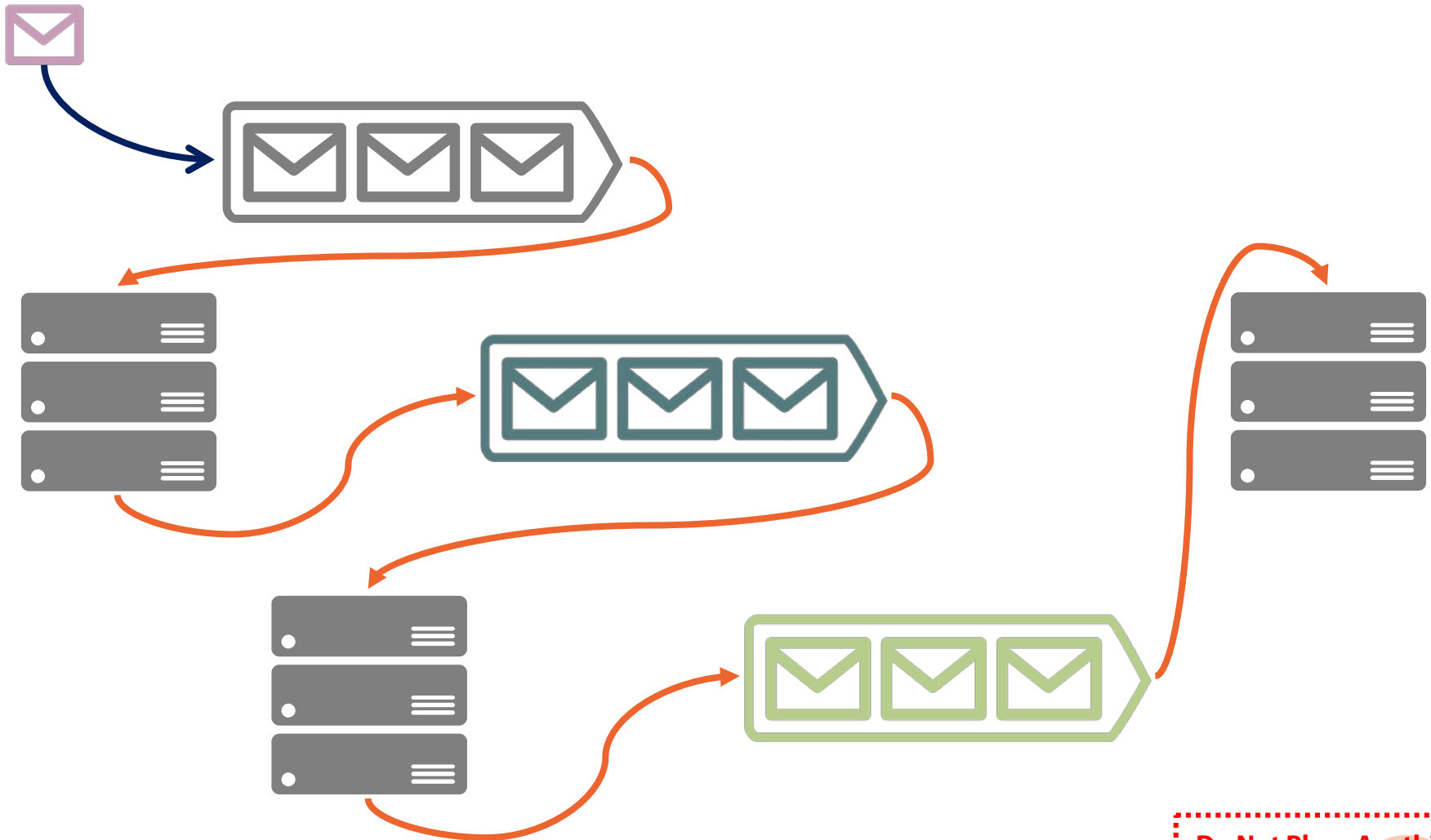


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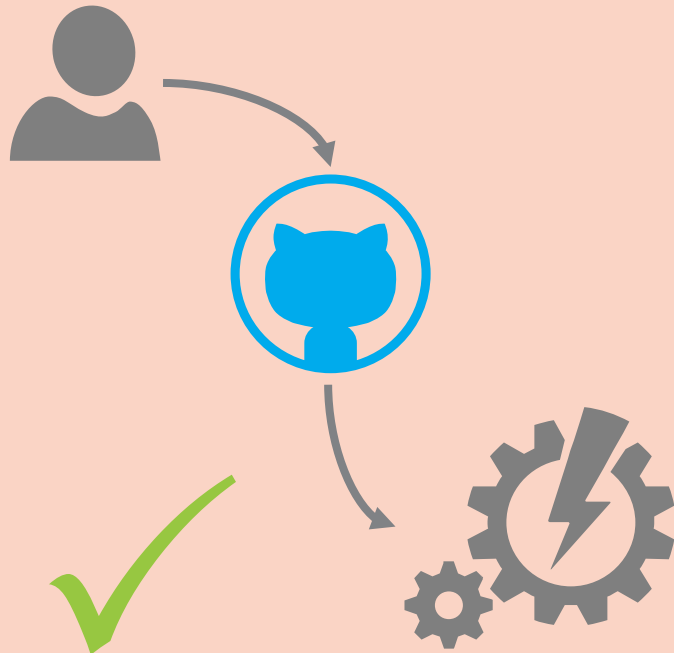
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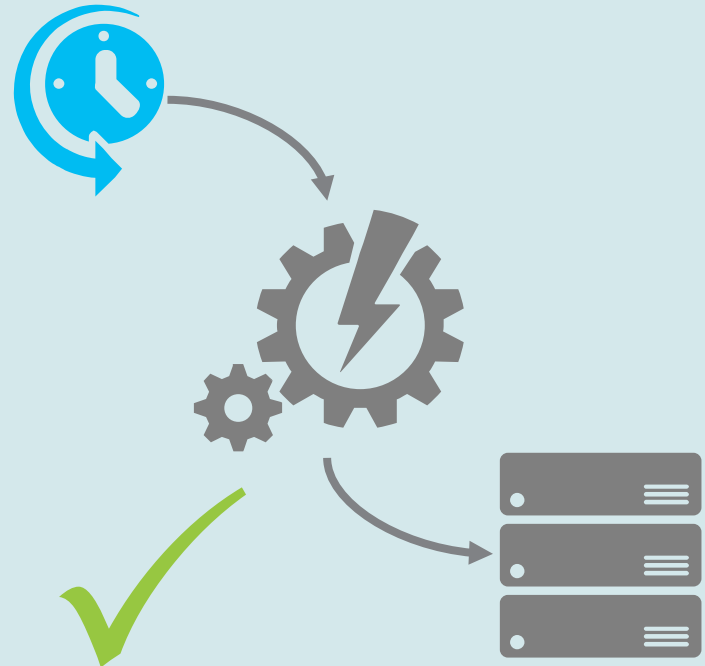
# Why write this course?

## Continuous Integration



Build & Test

## Nightly Build



Build, Test & Deploy

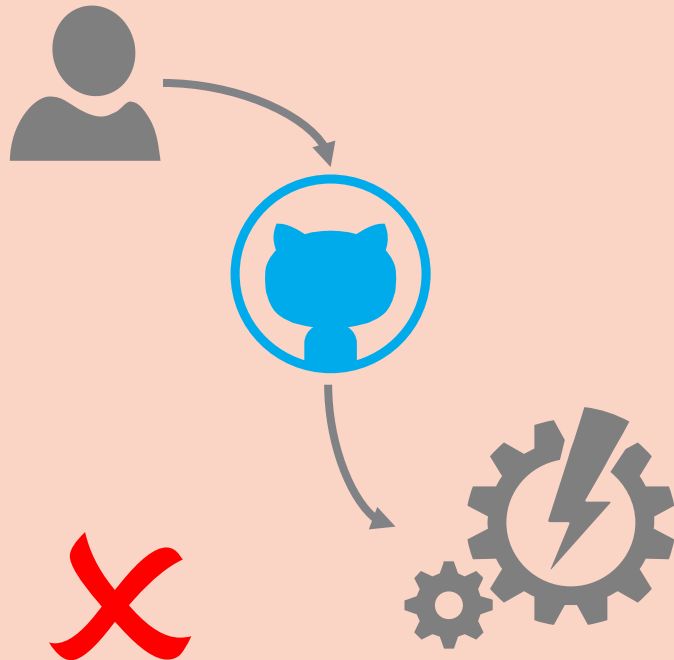
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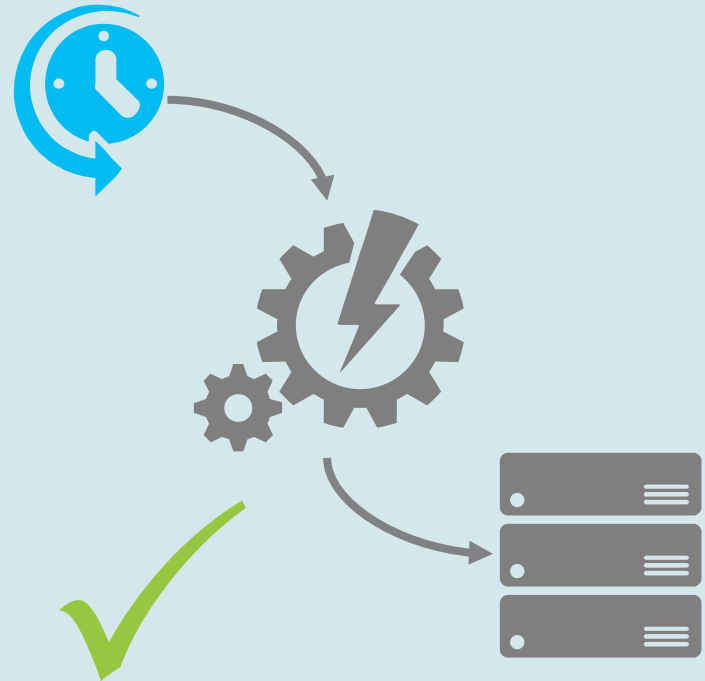
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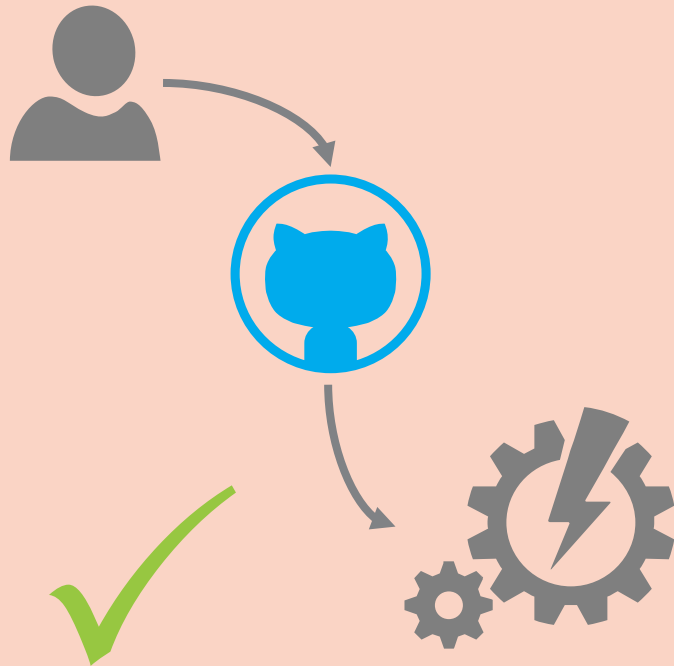
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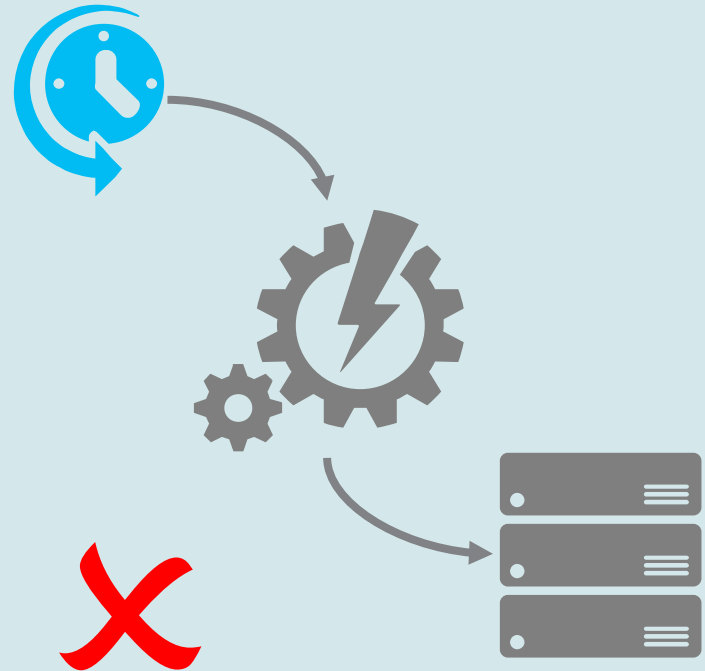
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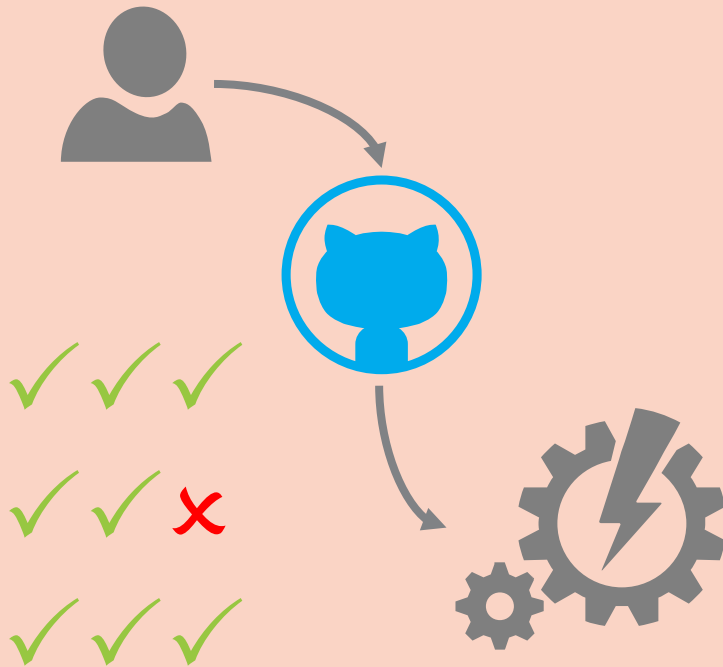
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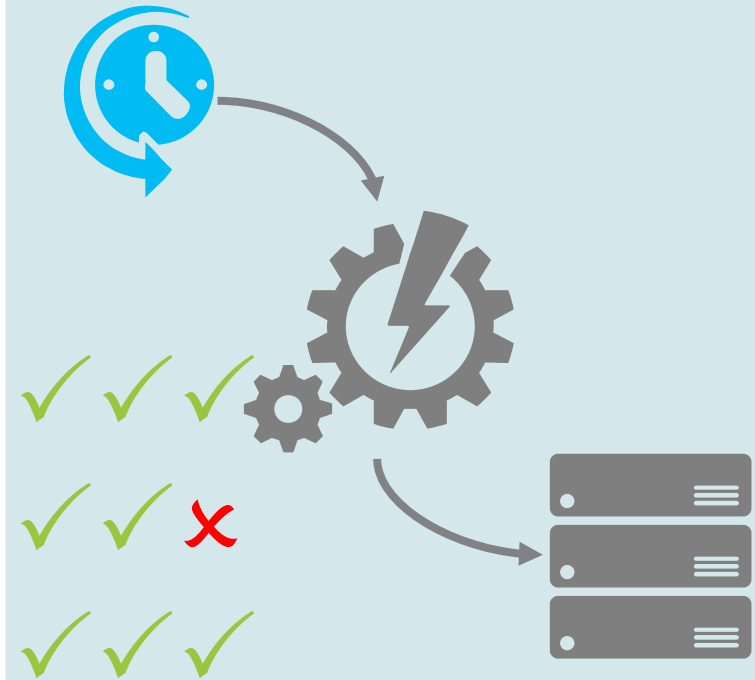
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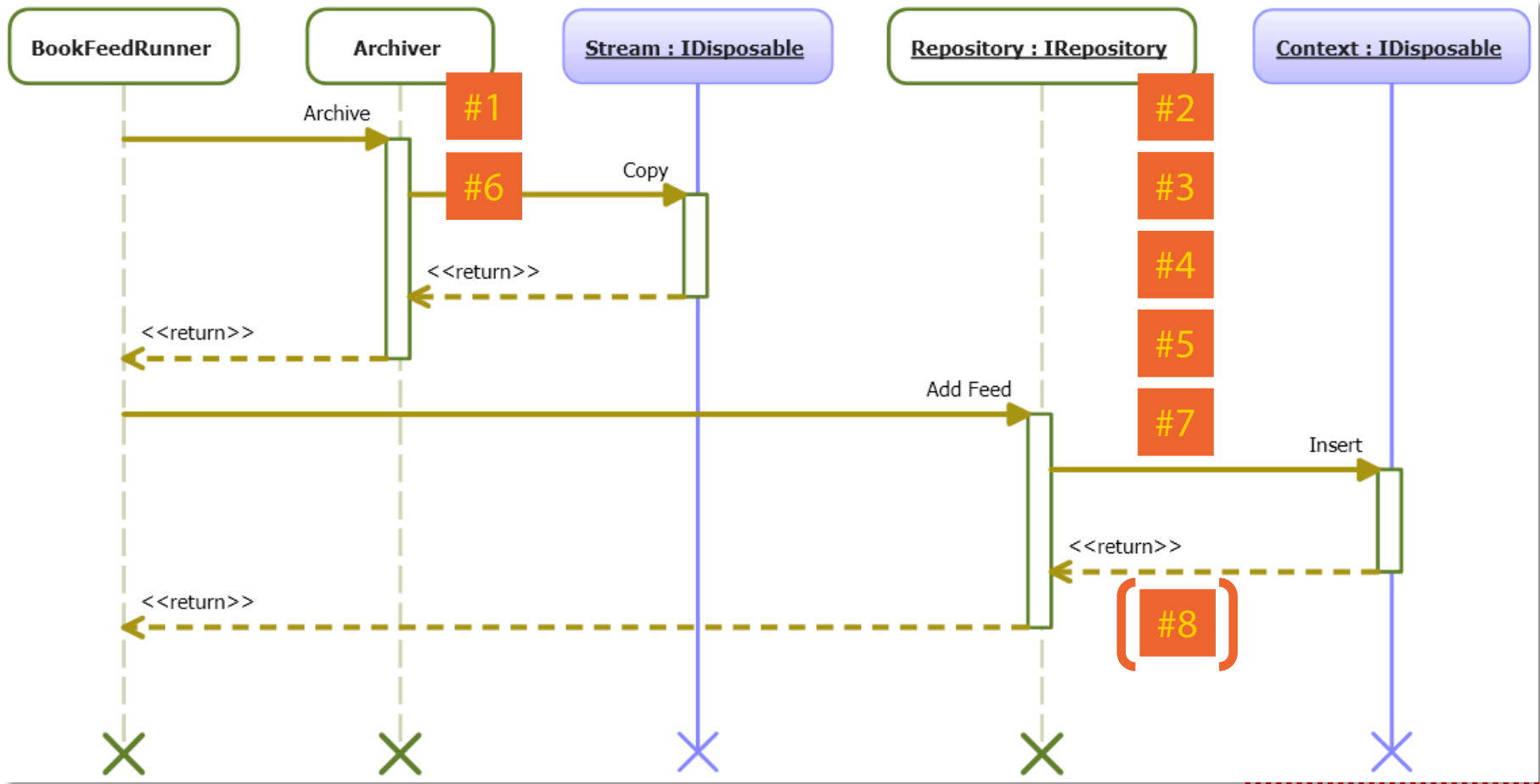
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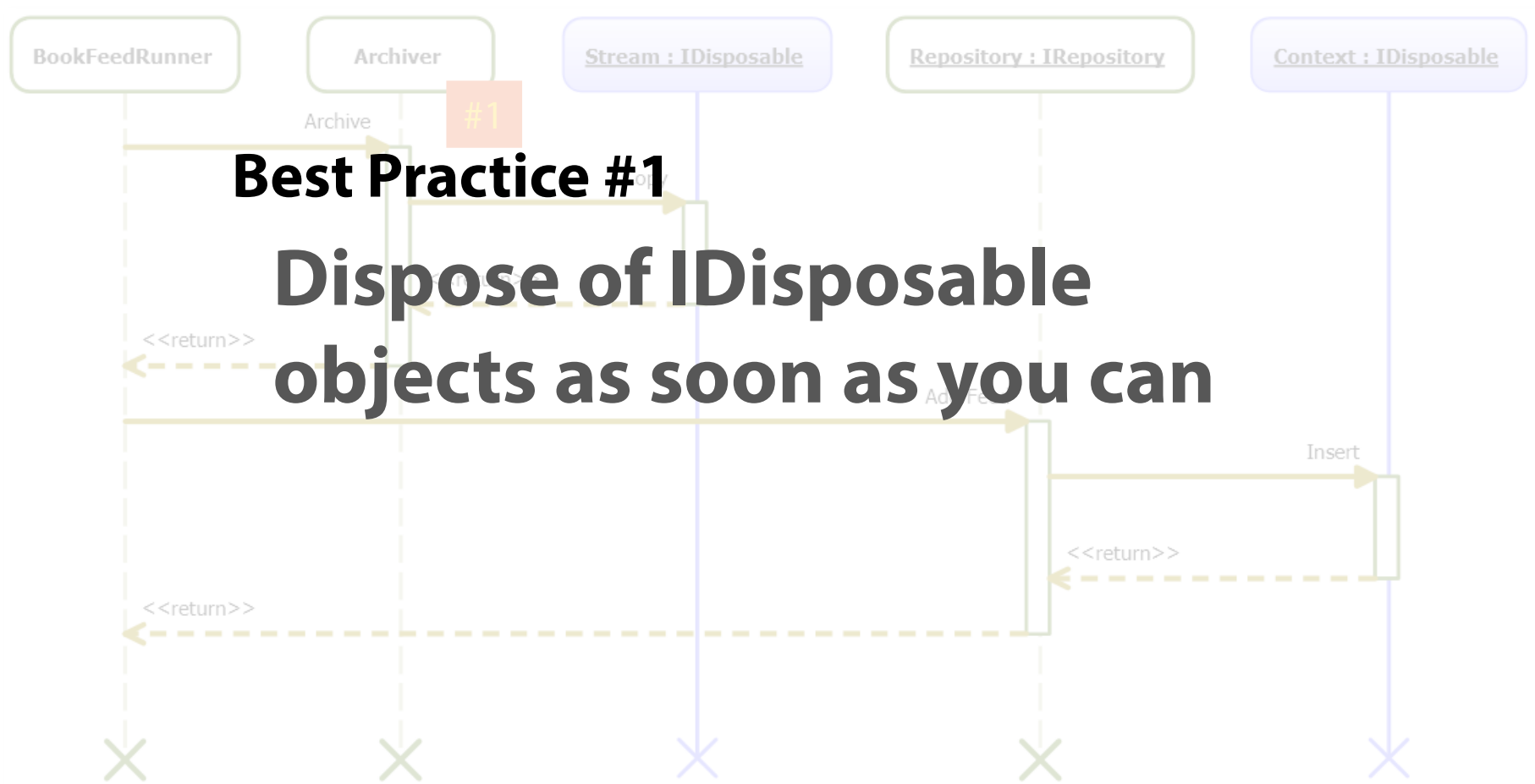
# The Best Practices



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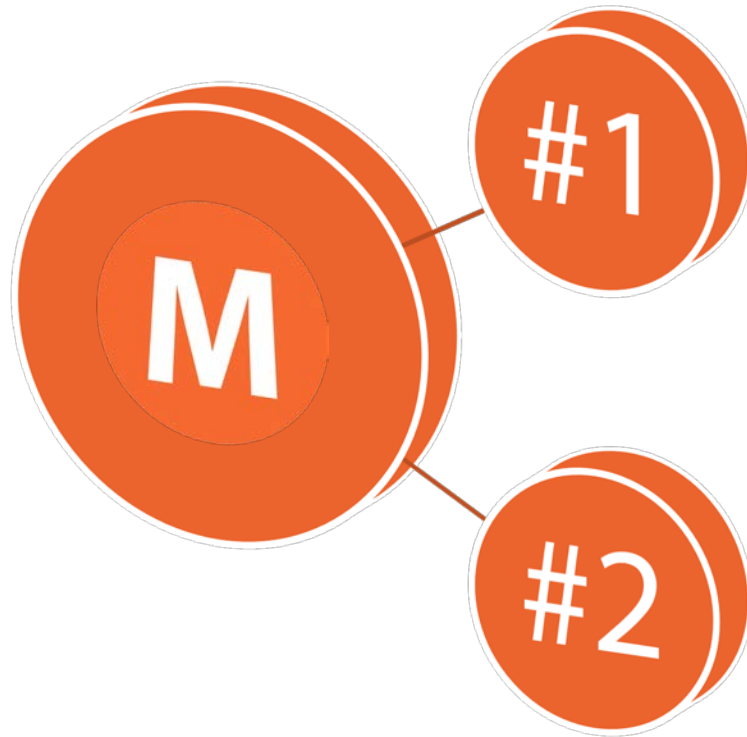


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# Best Practice MoSCoW



## Best Practice #1

Dispose of IDisposable objects as soon as you can

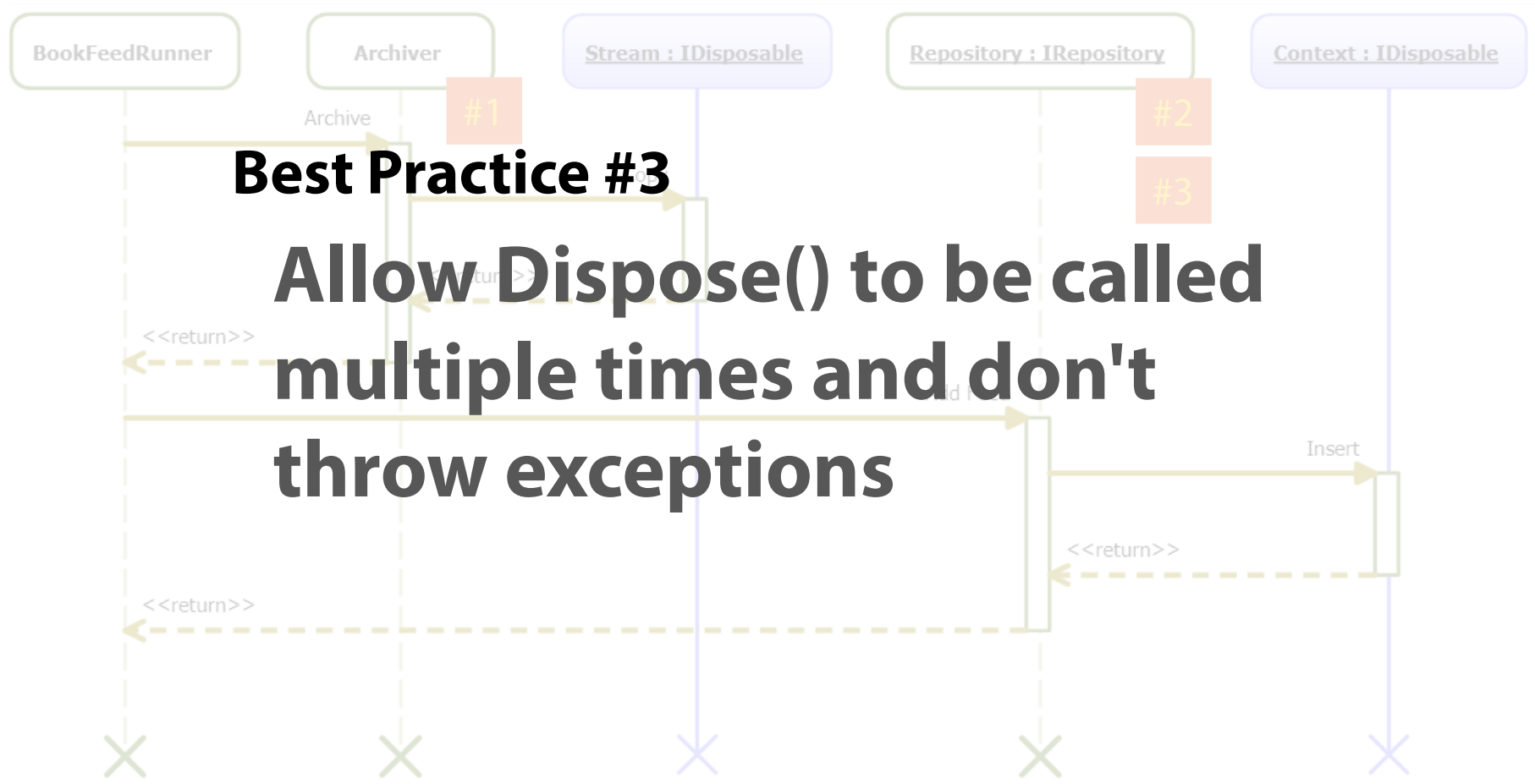
## Best Practice #2

If you use IDisposable objects as instance fields, implement IDisposable

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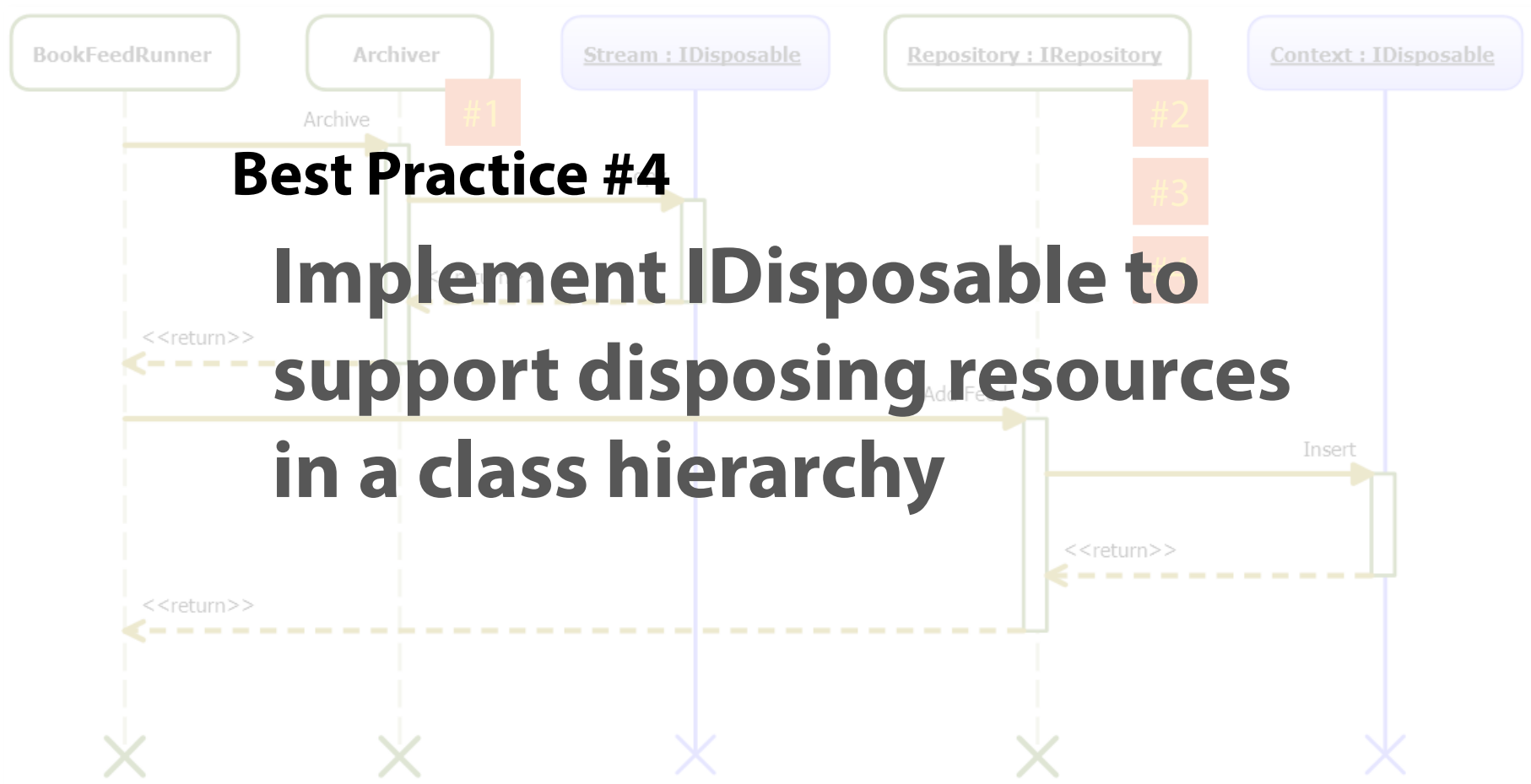
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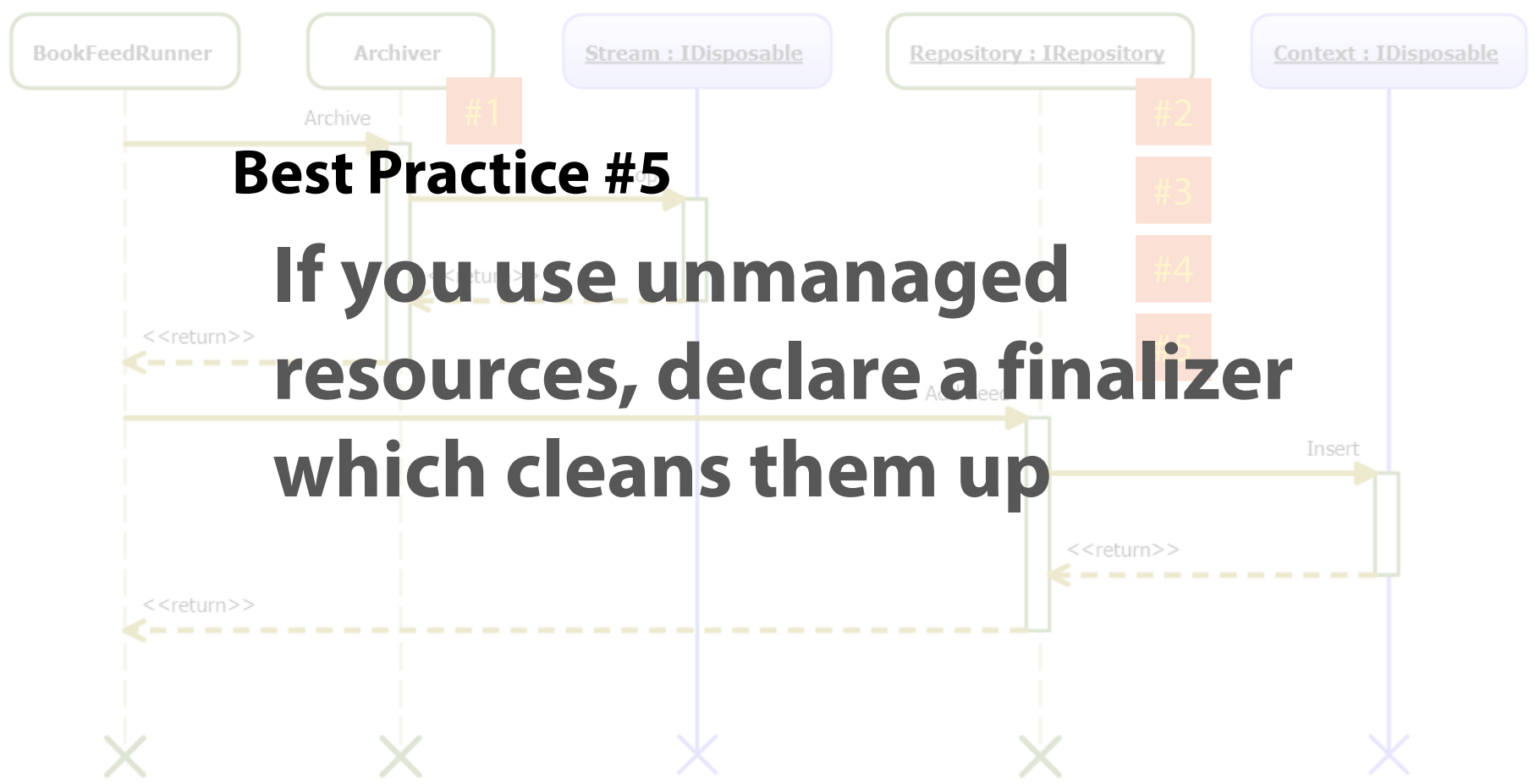
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# Best Practice MoSCoW



## Best Practice #3

**Allow `Dispose()` to be called multiple times and don't throw exceptions**

## Best Practice #4

**Implement `IDisposable` to support disposing resources in a class hierarchy**

## Best Practice #5

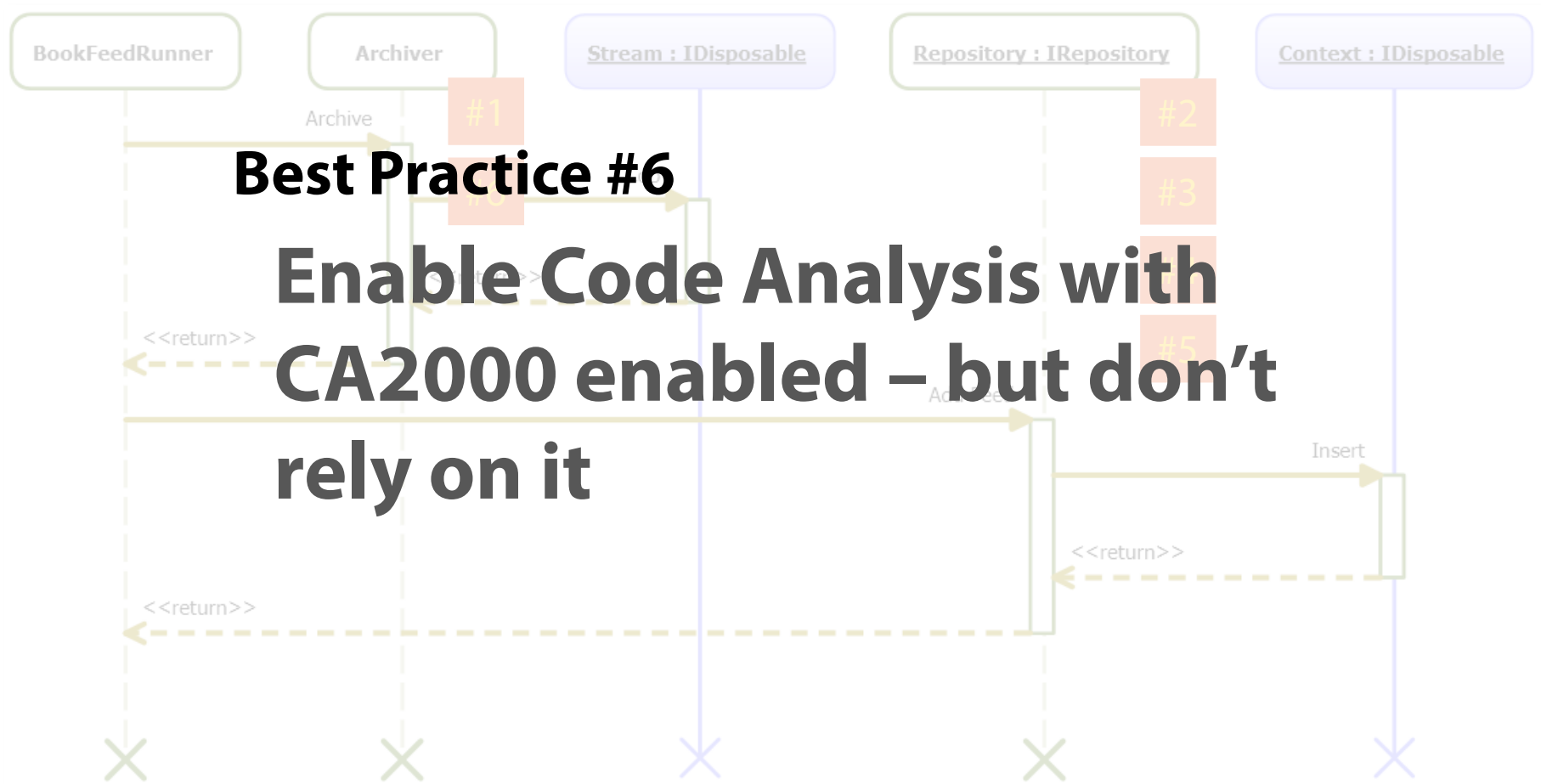
**If you use unmanaged resources, declare a `finalizer` which cleans them up**

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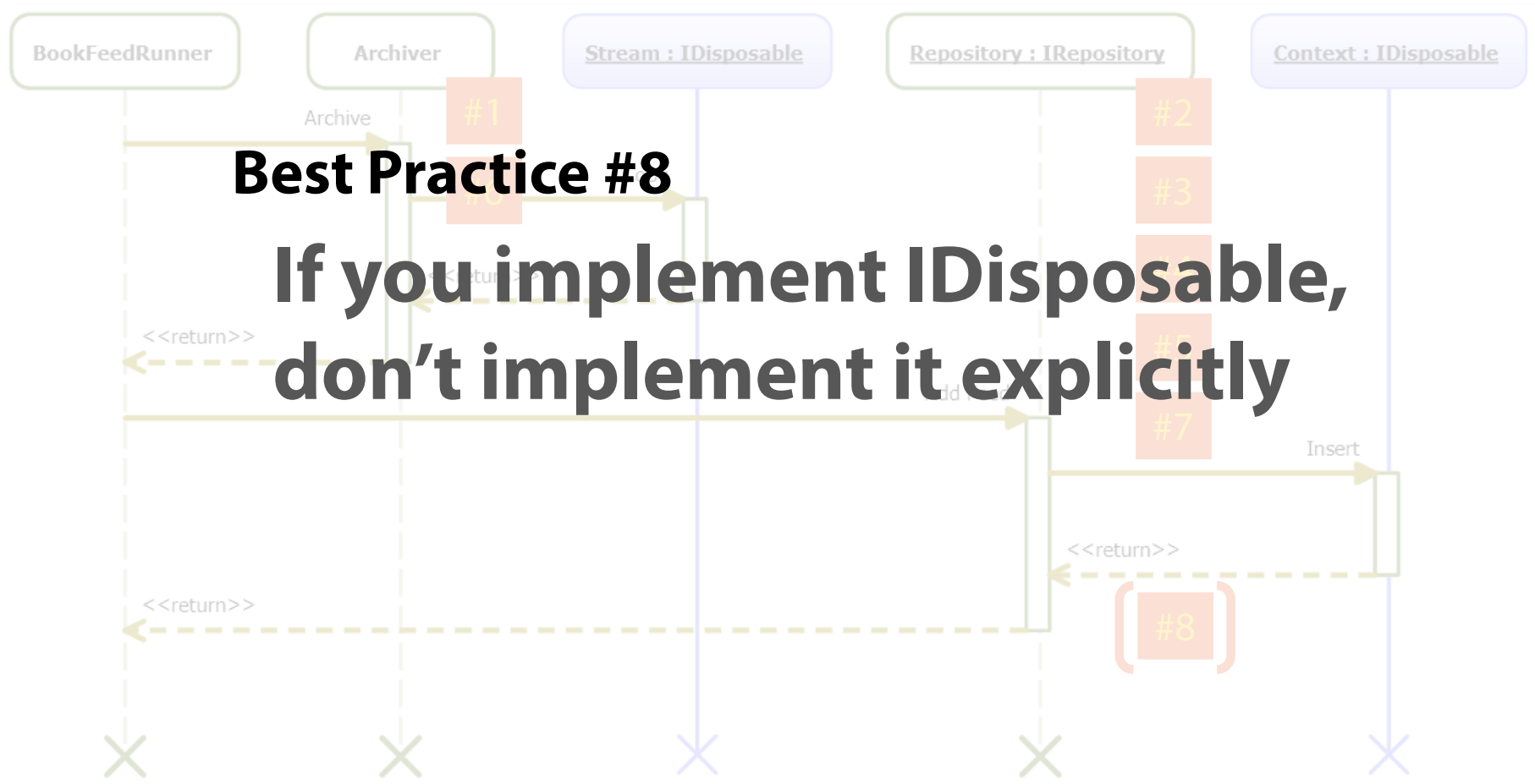
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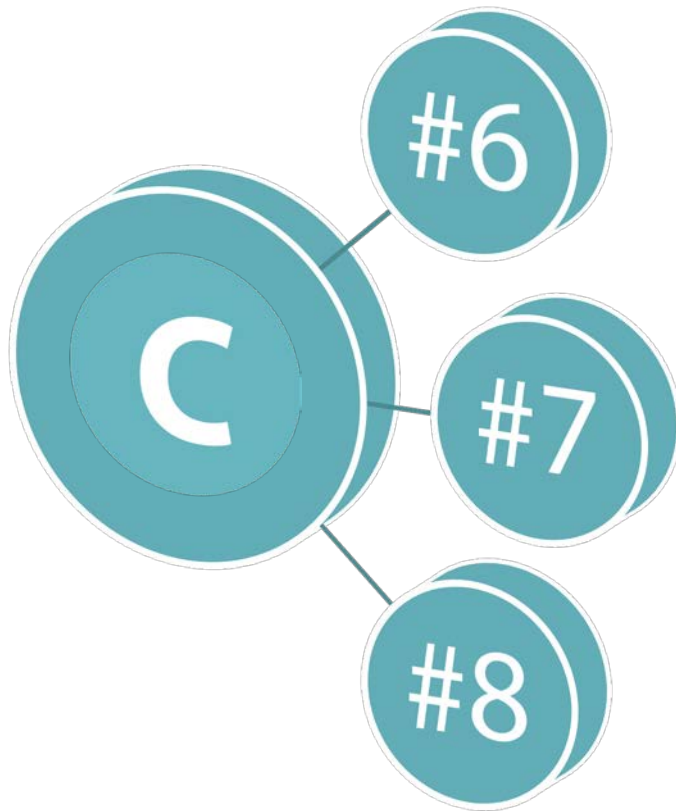


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# Best Practice MoSCoW



## Best Practice #6

**Enable Code Analysis with CA2000 enabled – but don't rely on it**

## Best Practice #7

**If you implement an interface and use IDisposable fields, extend your interface from IDisposable**

## Best Practice #8

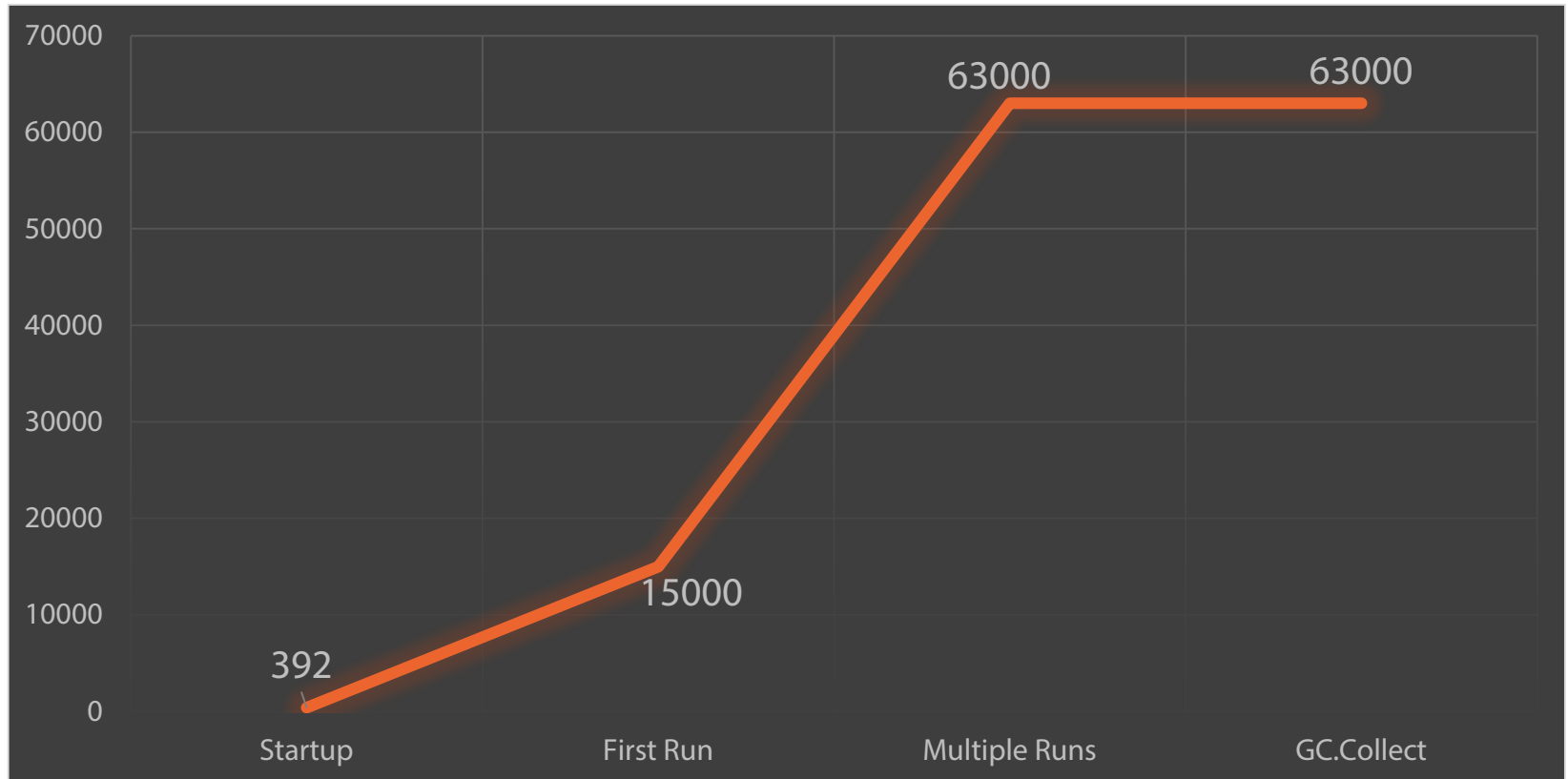
**If you implement IDisposable, don't implement it explicitly**

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# Using IDisposable Correctly



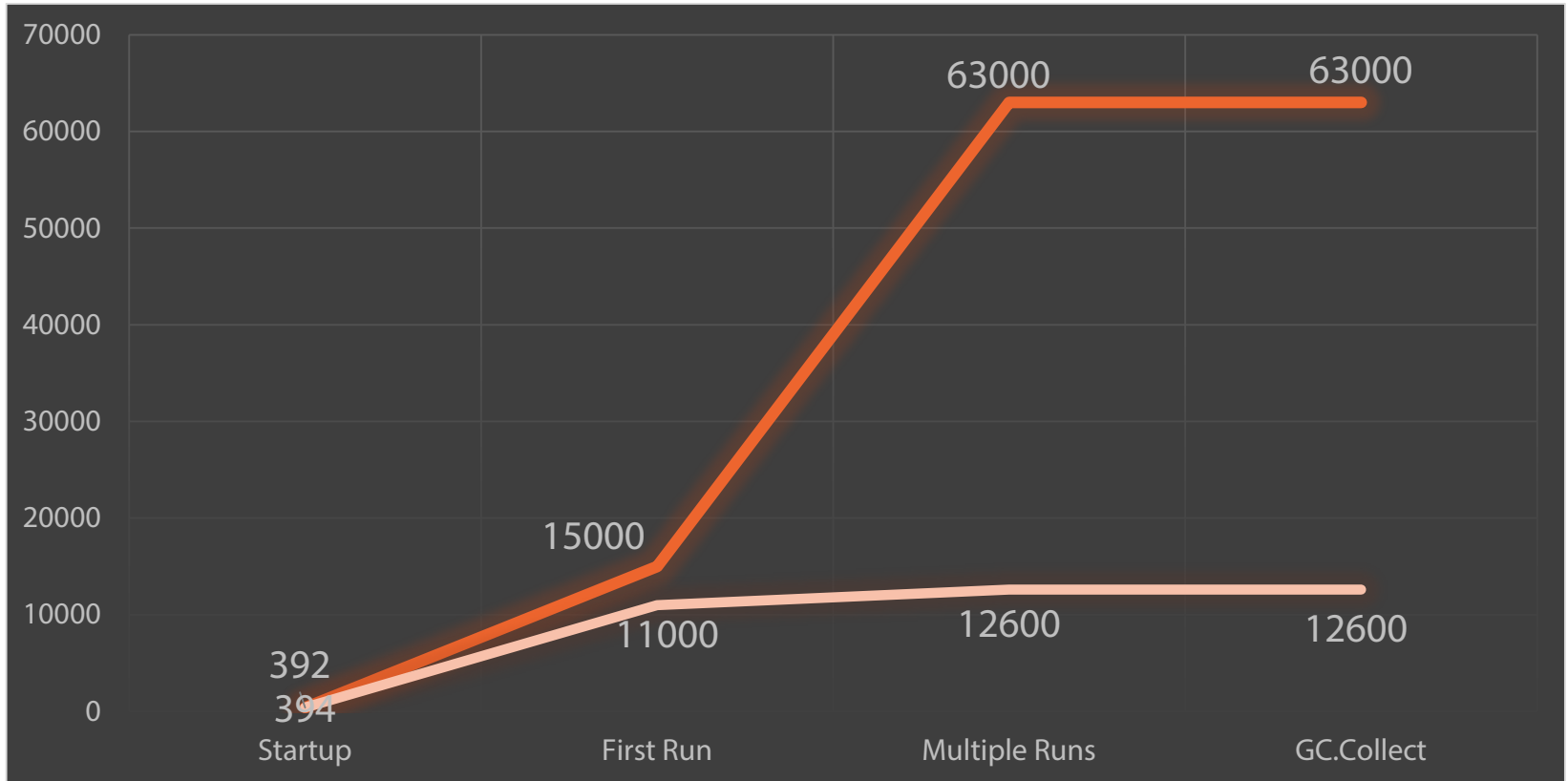
 - original app

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# Using IDisposable Correctly



- original app






- best practice version

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# Summary

- **Introducing IDisposable** 
  - Interface definition
  - Unmanaged resources & other IDisposables
- **What happens when the GC runs?** 
  - GC what and when
  - Where IDisposable fits in
- **What happens when you don't dispose?** 
  - Functional defects
  - Performance problems
  - How to find & fix problems

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