

Andreas Prüller

Unknown Patterns

Branching by
Abstraction

Unknown Patterns

Branching by Abstraction

The Problem

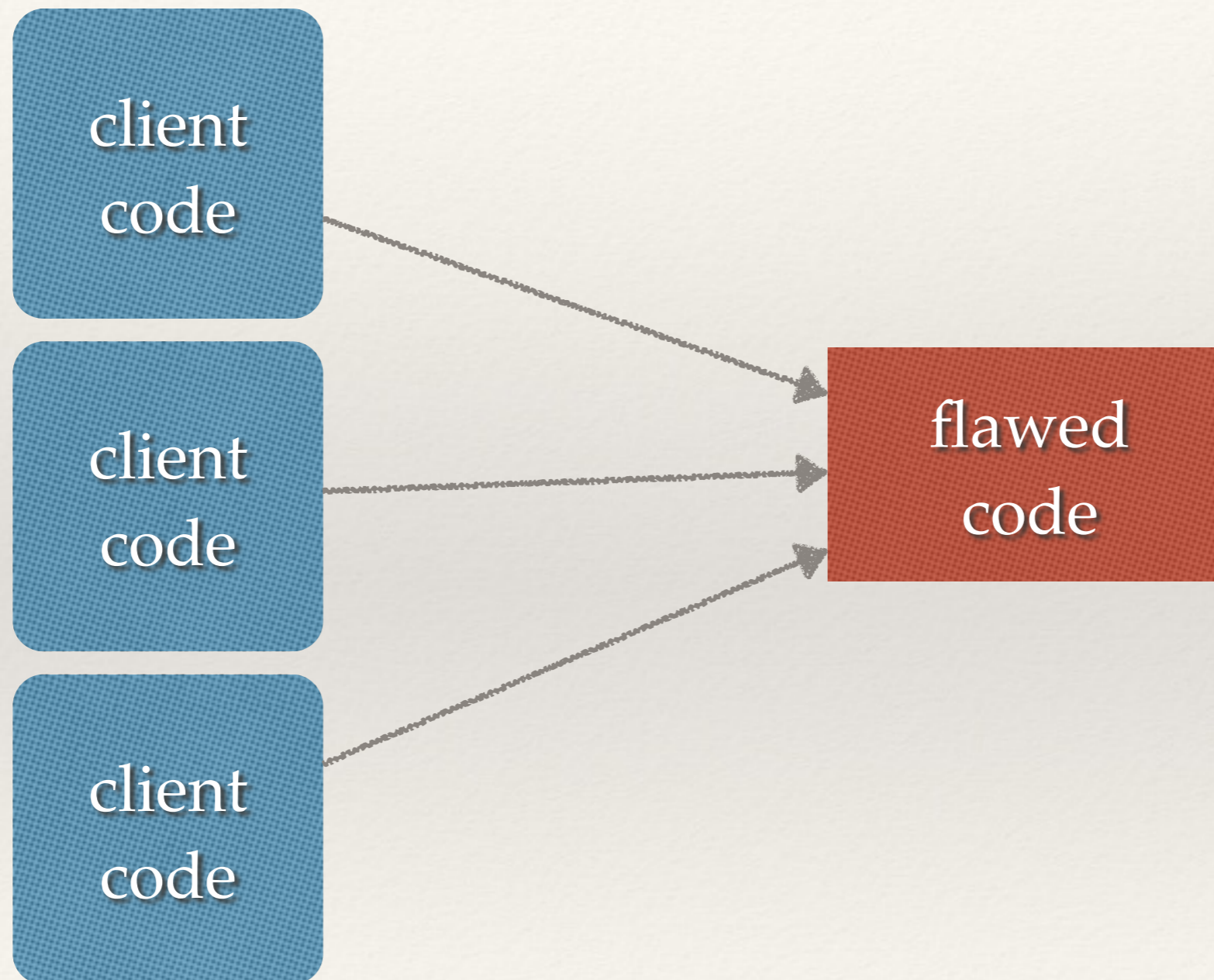


Don Moyer: <http://www.flickr.com/photos/36106576@N05/4230355503/>

The Problem

- ❖ Refactoring at central areas of code or functionality
- ❖ Large scale code changes while continuously releasing
- ❖ No usage of branches allowed or wanted
- ❖ Merging branches is hell

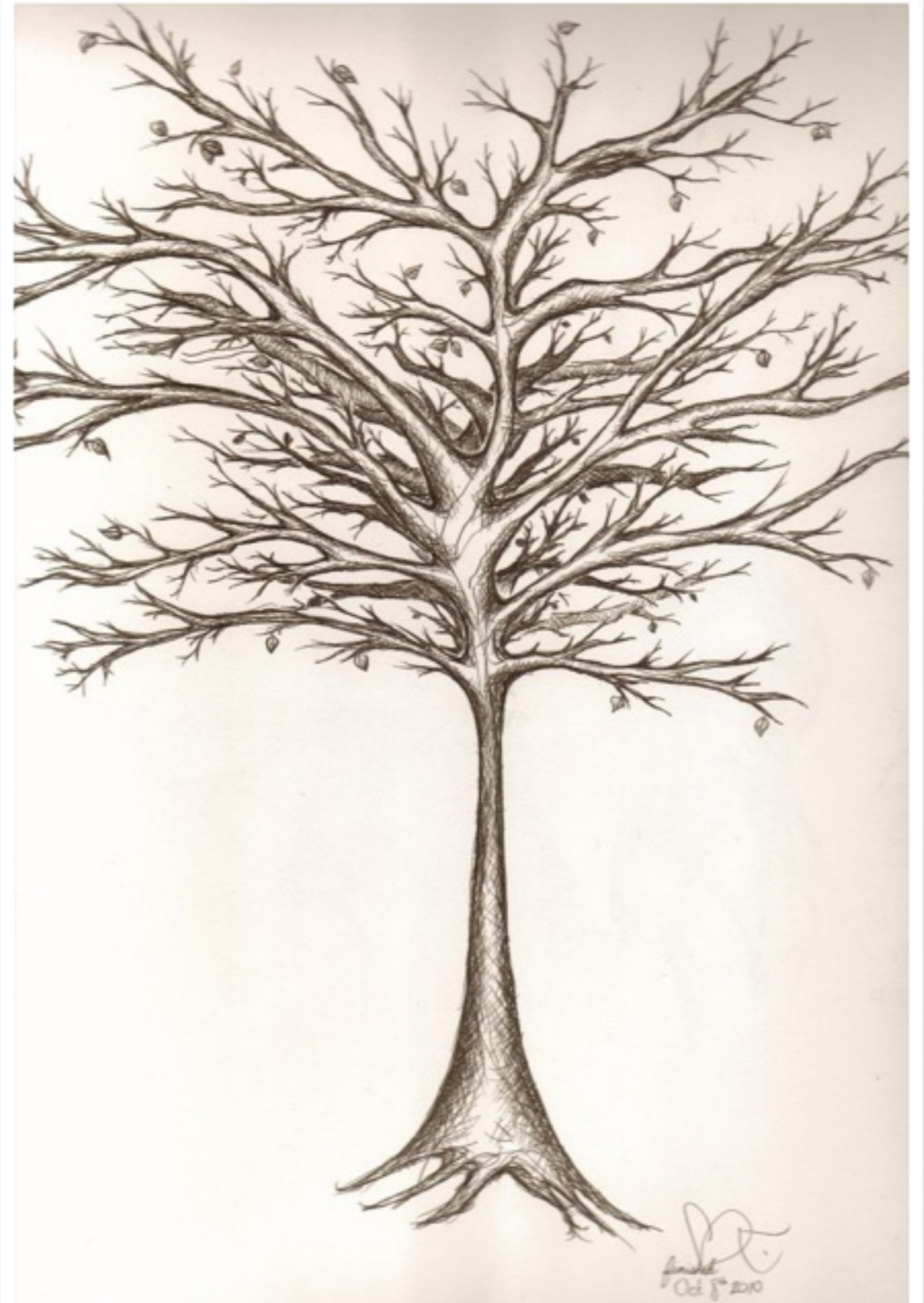
The Problem



Unknown Patterns

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The Solution



COTTfan24: <http://cottfan24.deviantart.com/art/Branching-Out-183501749>

Branching by Abstraction

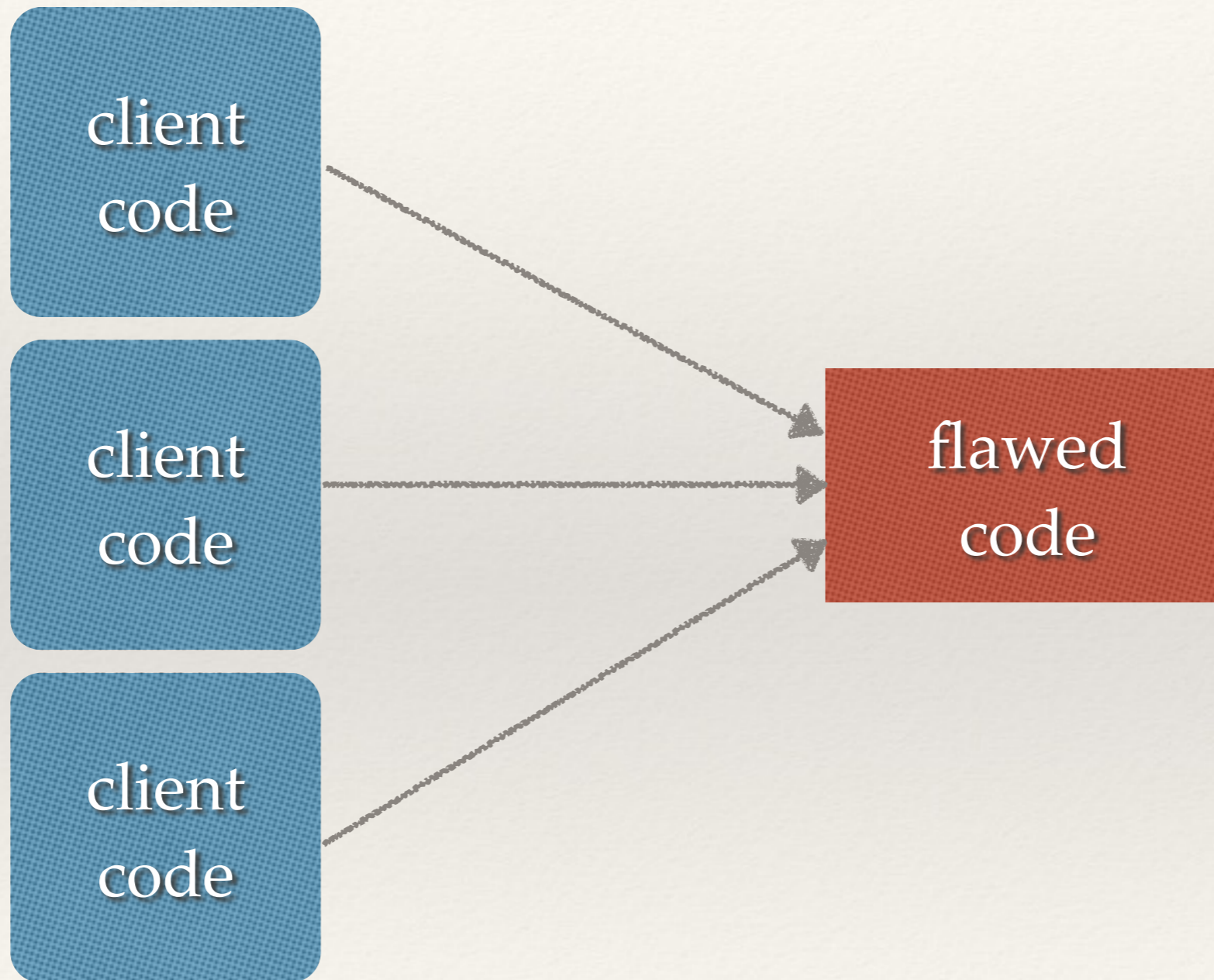
What to do?

- ❖ keep application working while major code changes
- ❖ don't use a branch to have all benefits of a continuous pipeline
- ❖ release while doing the code change

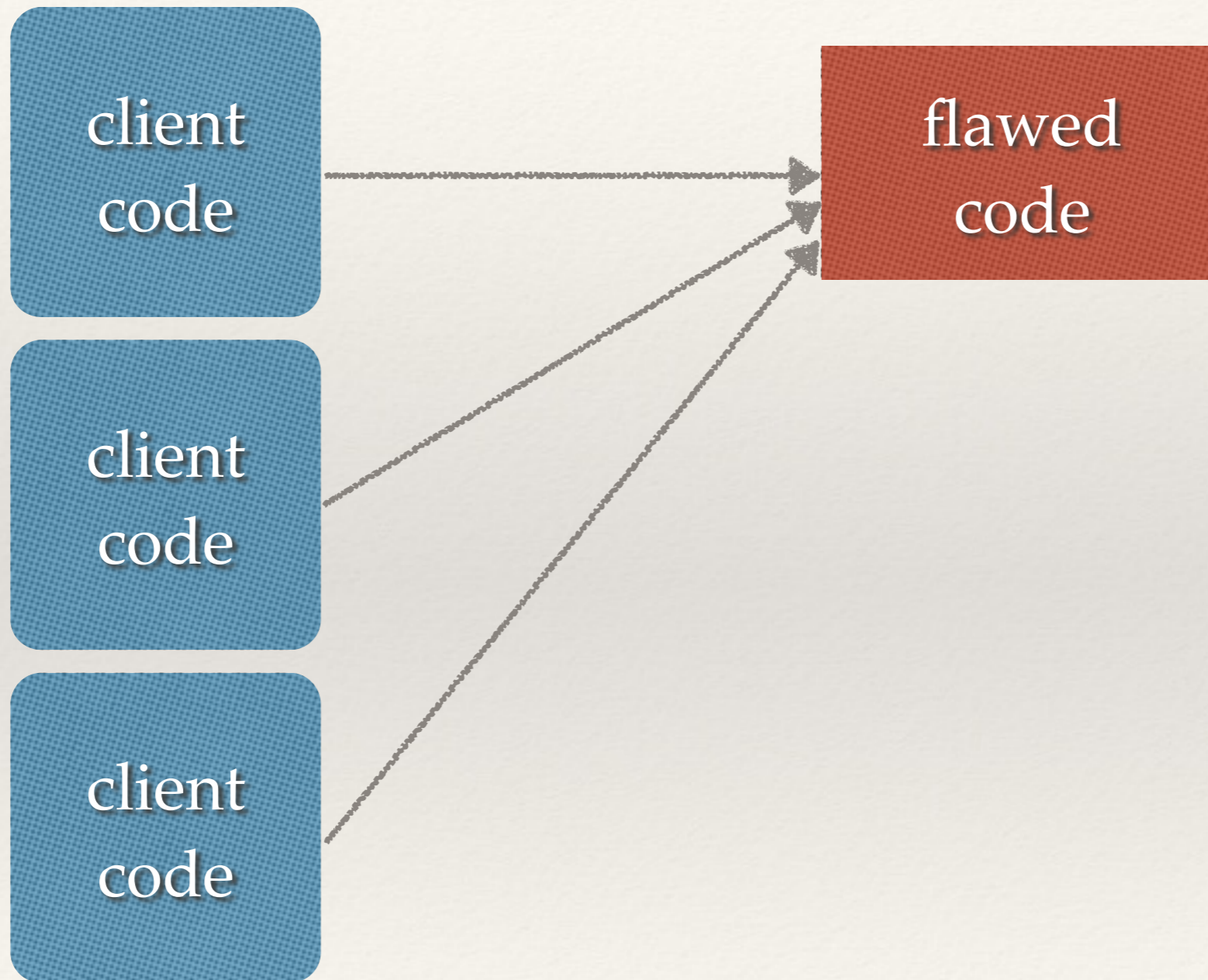
Branching by Abstraction

1. create abstraction layer
2. move references of client code to abstraction layer
3. write new supplier
4. gradually move client code to new supplier
5. delete flawed supplier (and maybe abstraction layer)

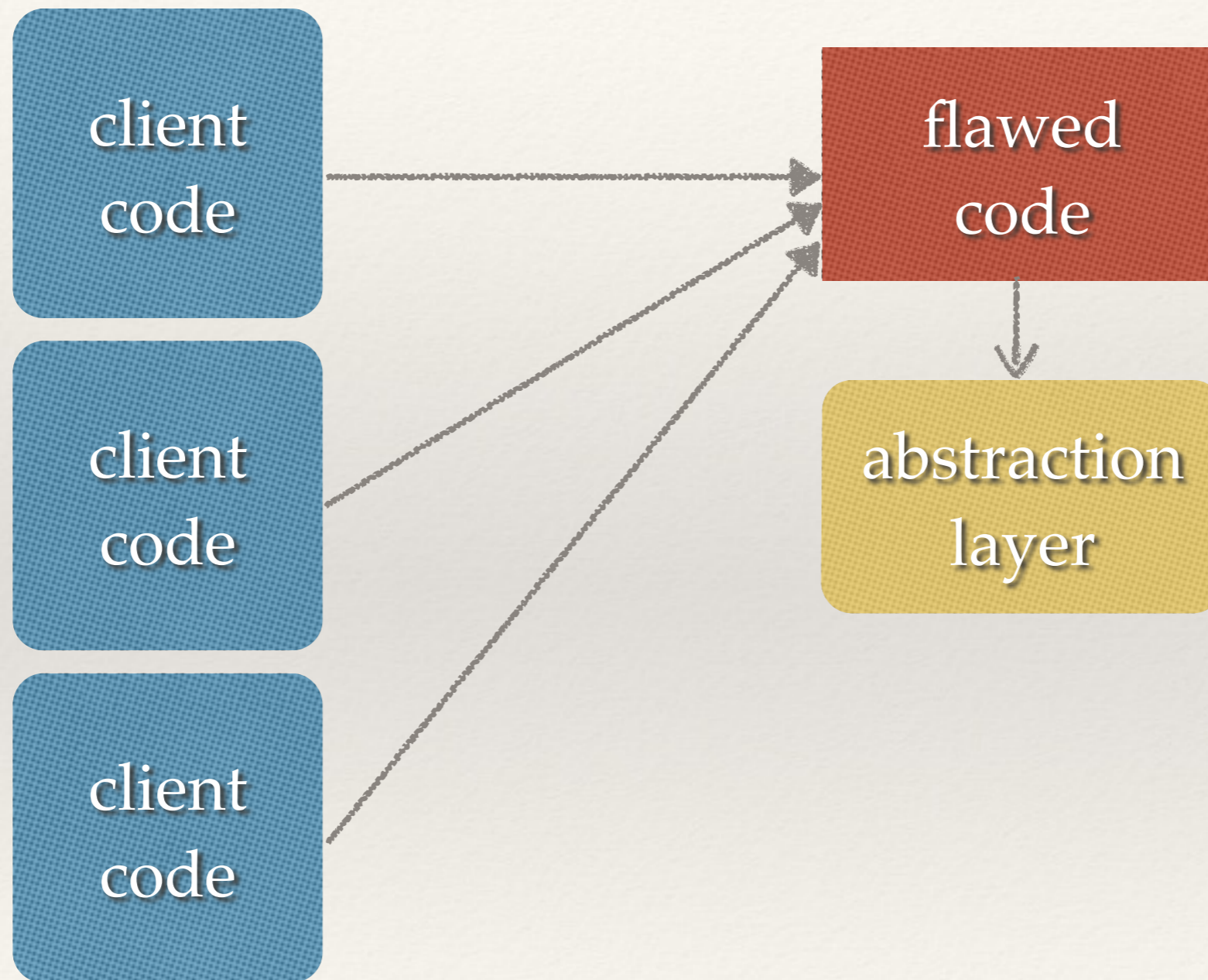
Branching by Abstraction



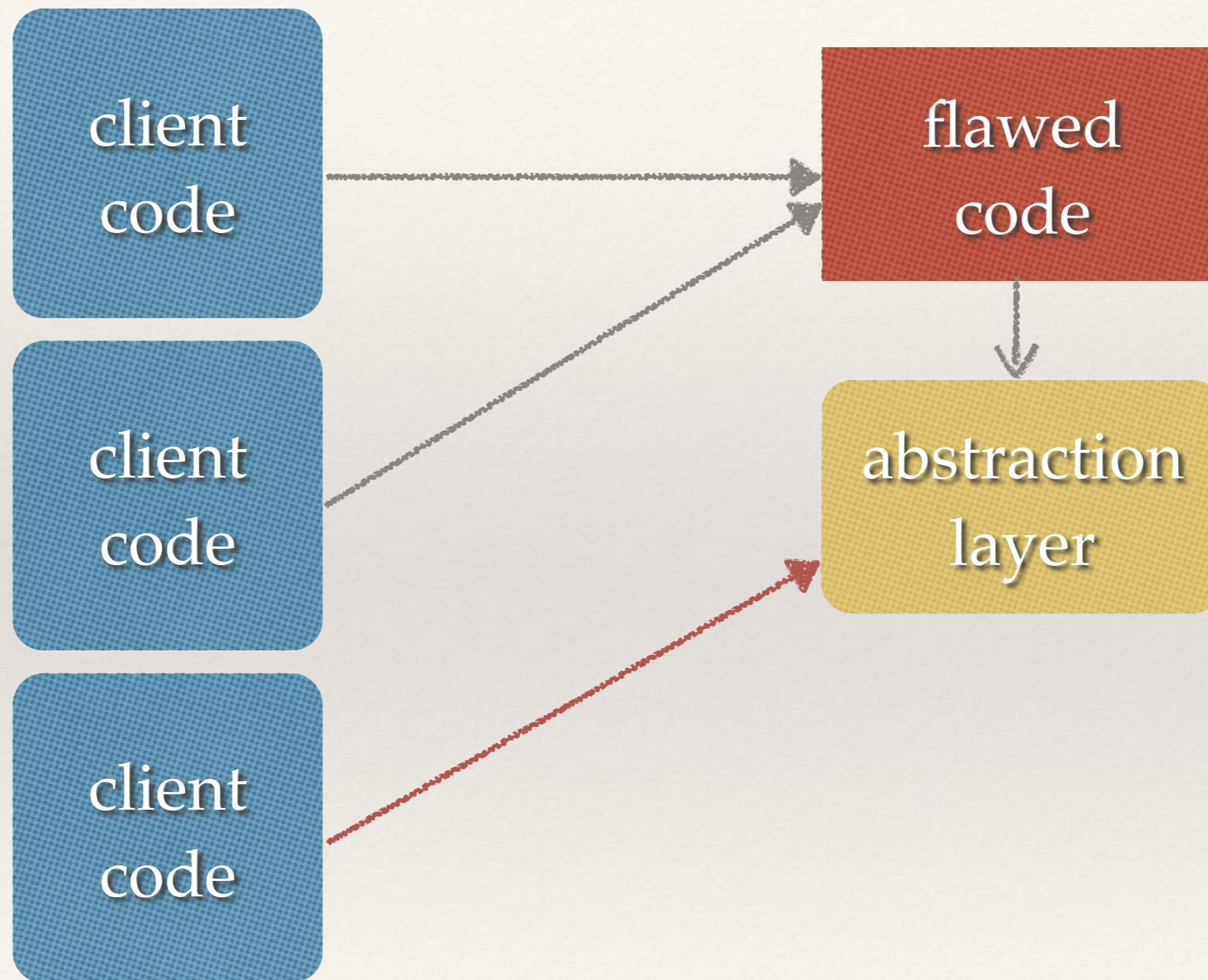
Branching by Abstraction



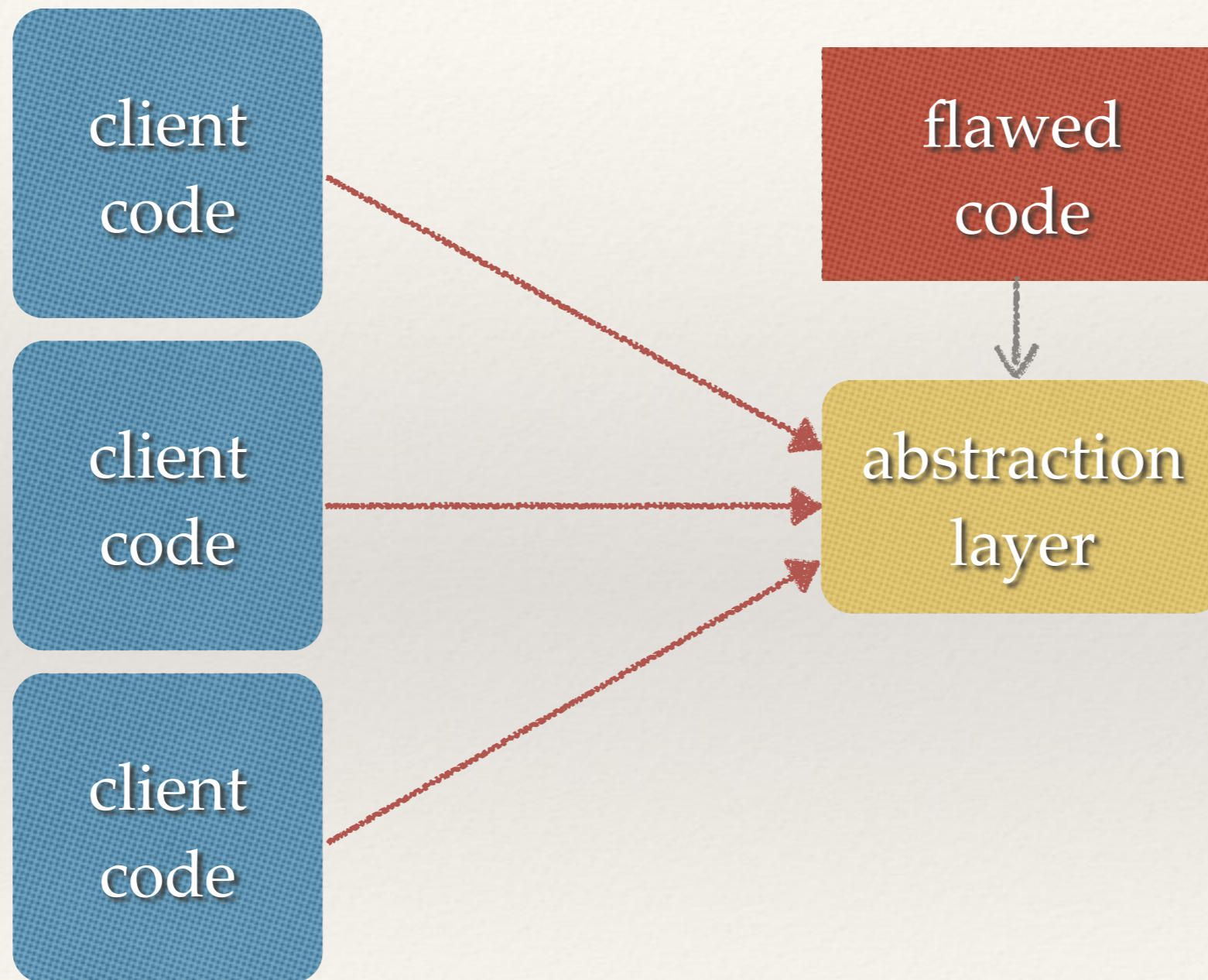
Branching by Abstraction



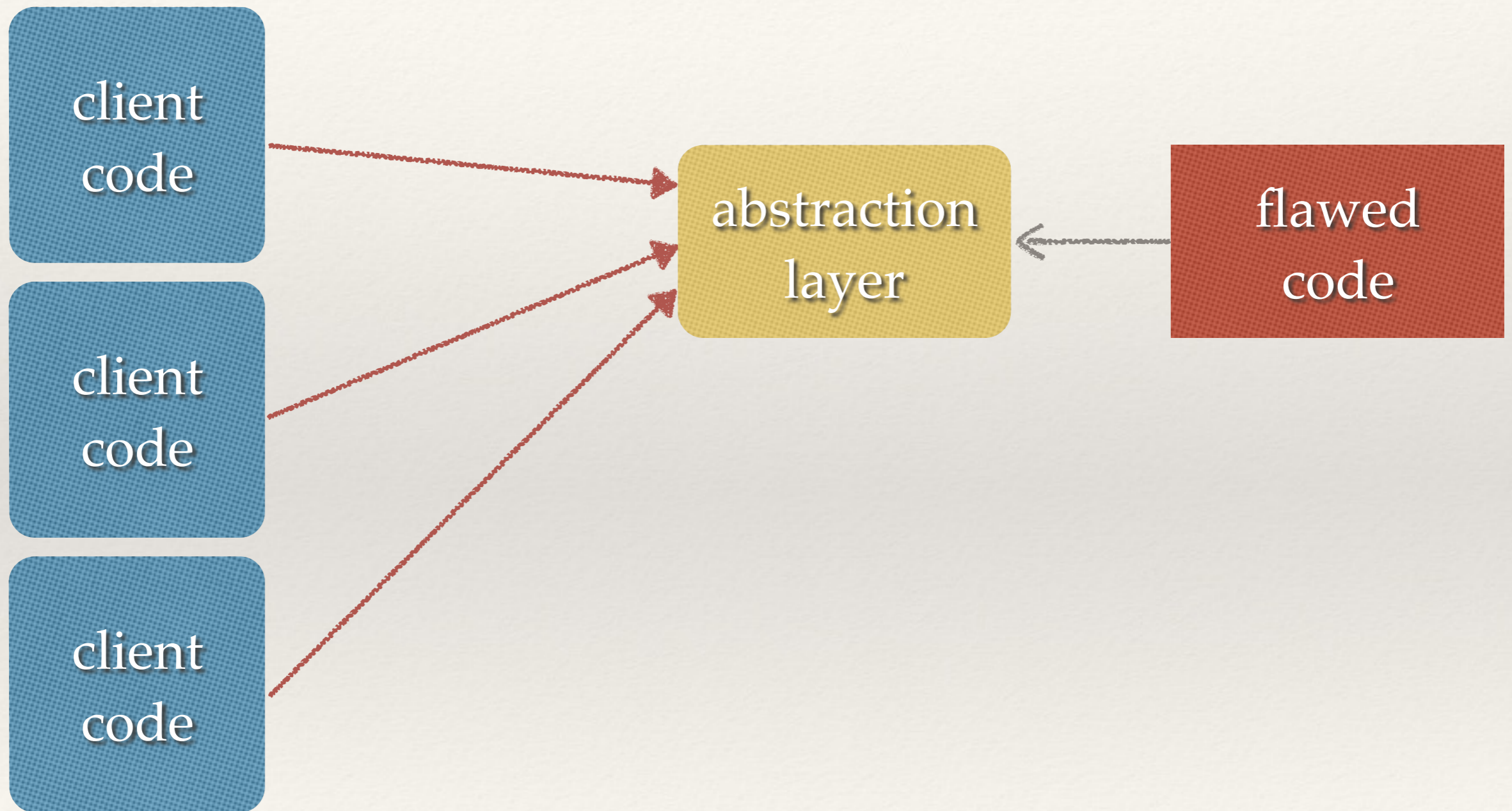
Branching by Abstraction



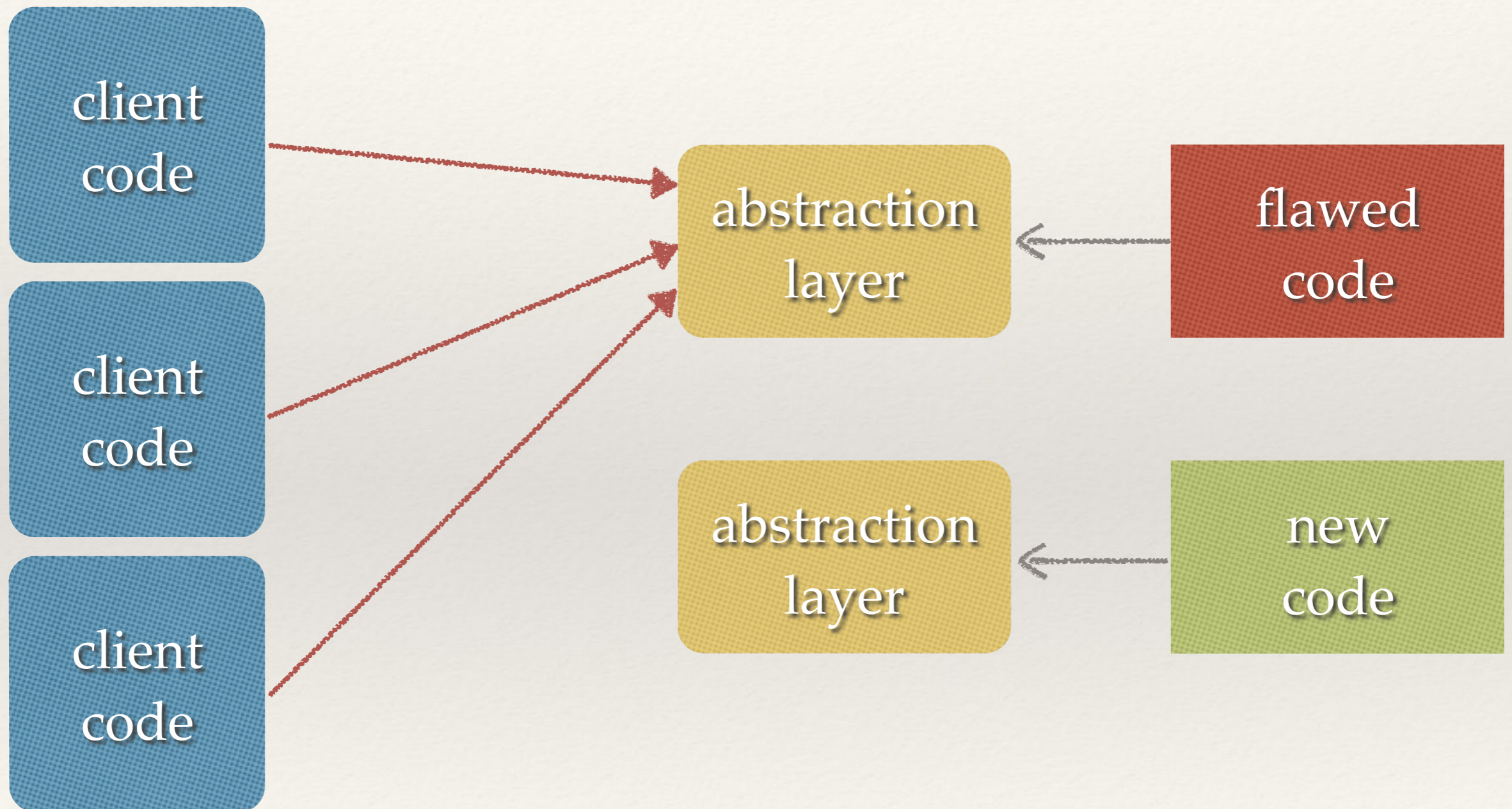
Branching by Abstraction



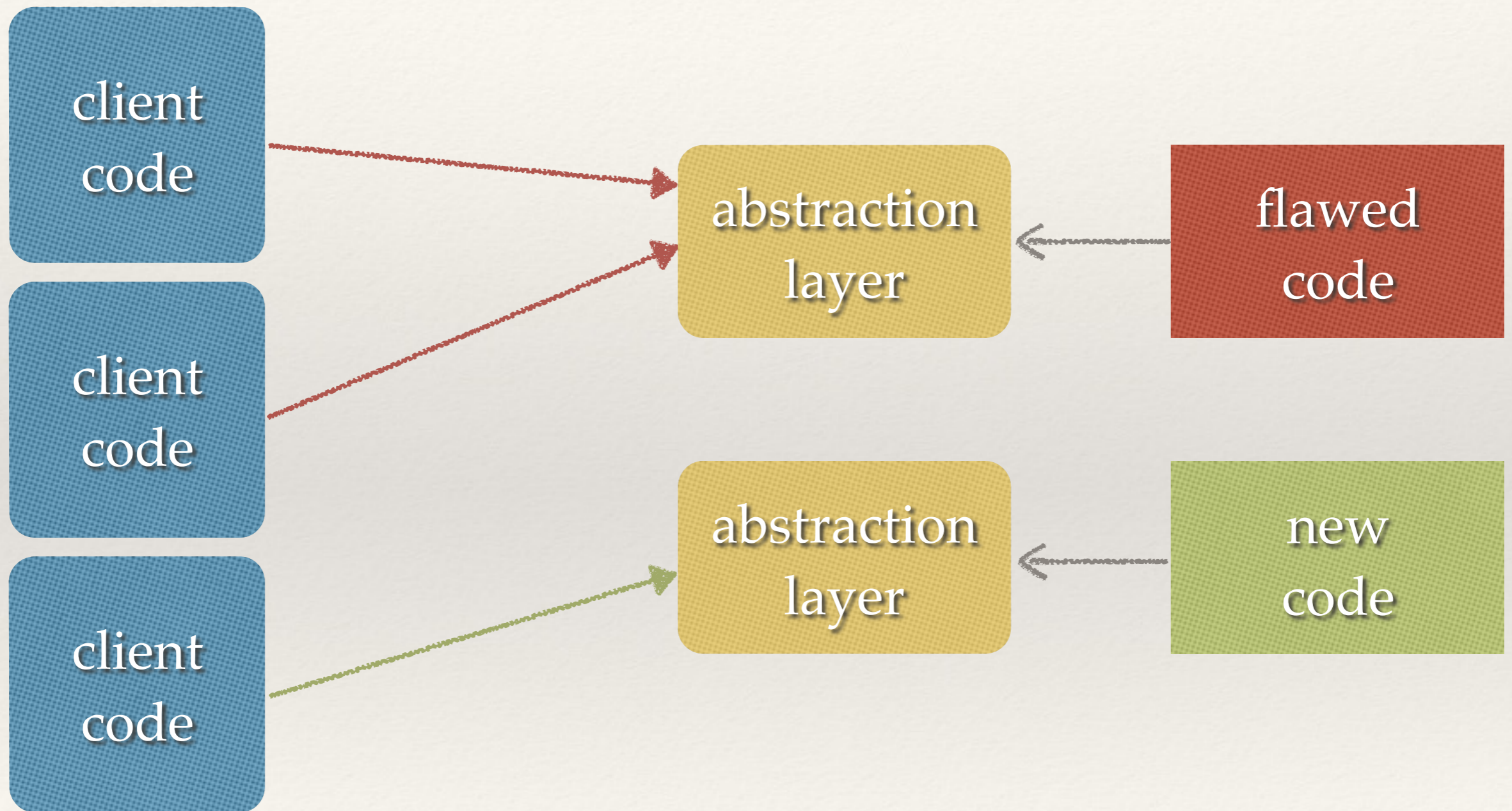
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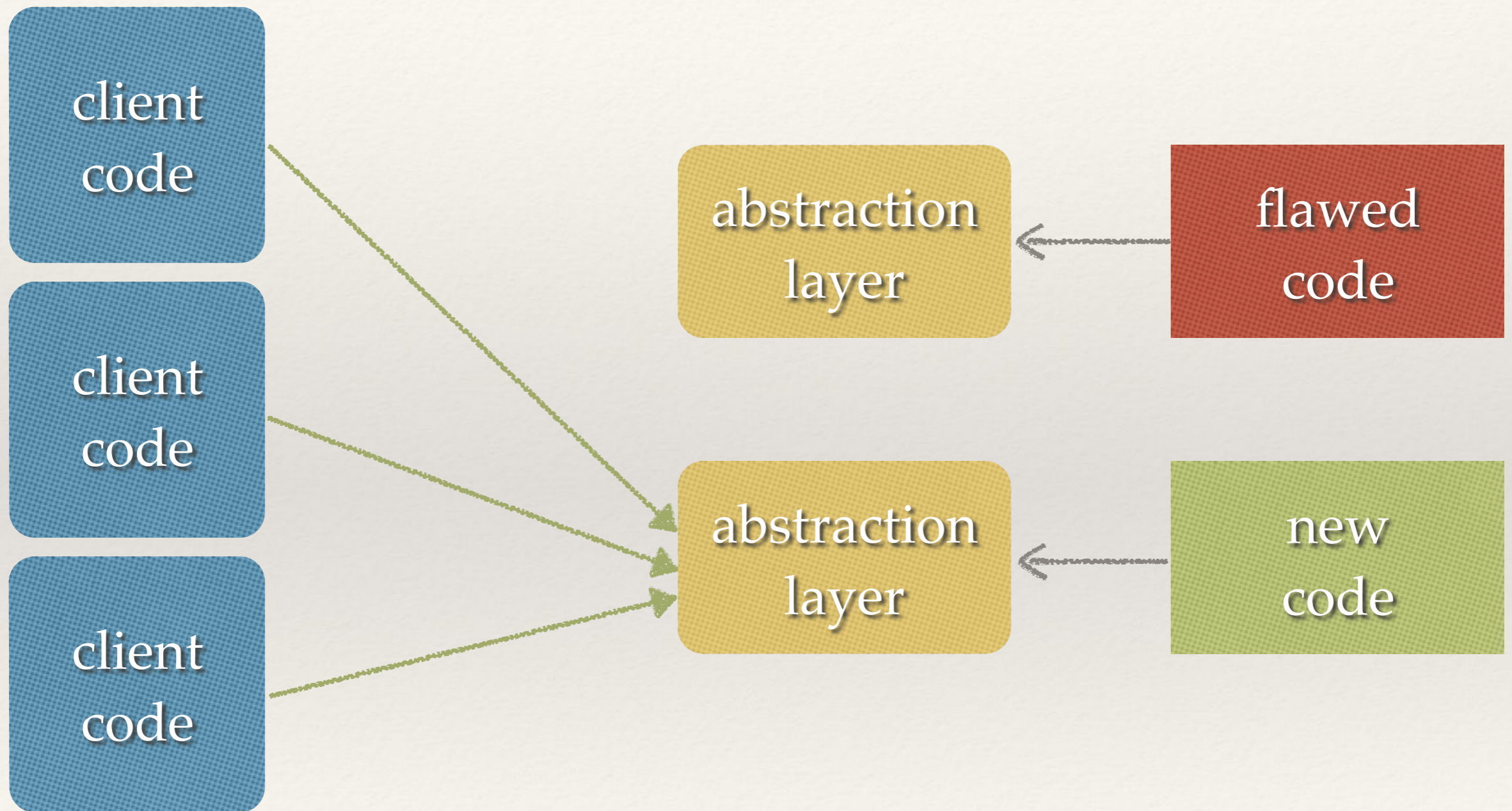
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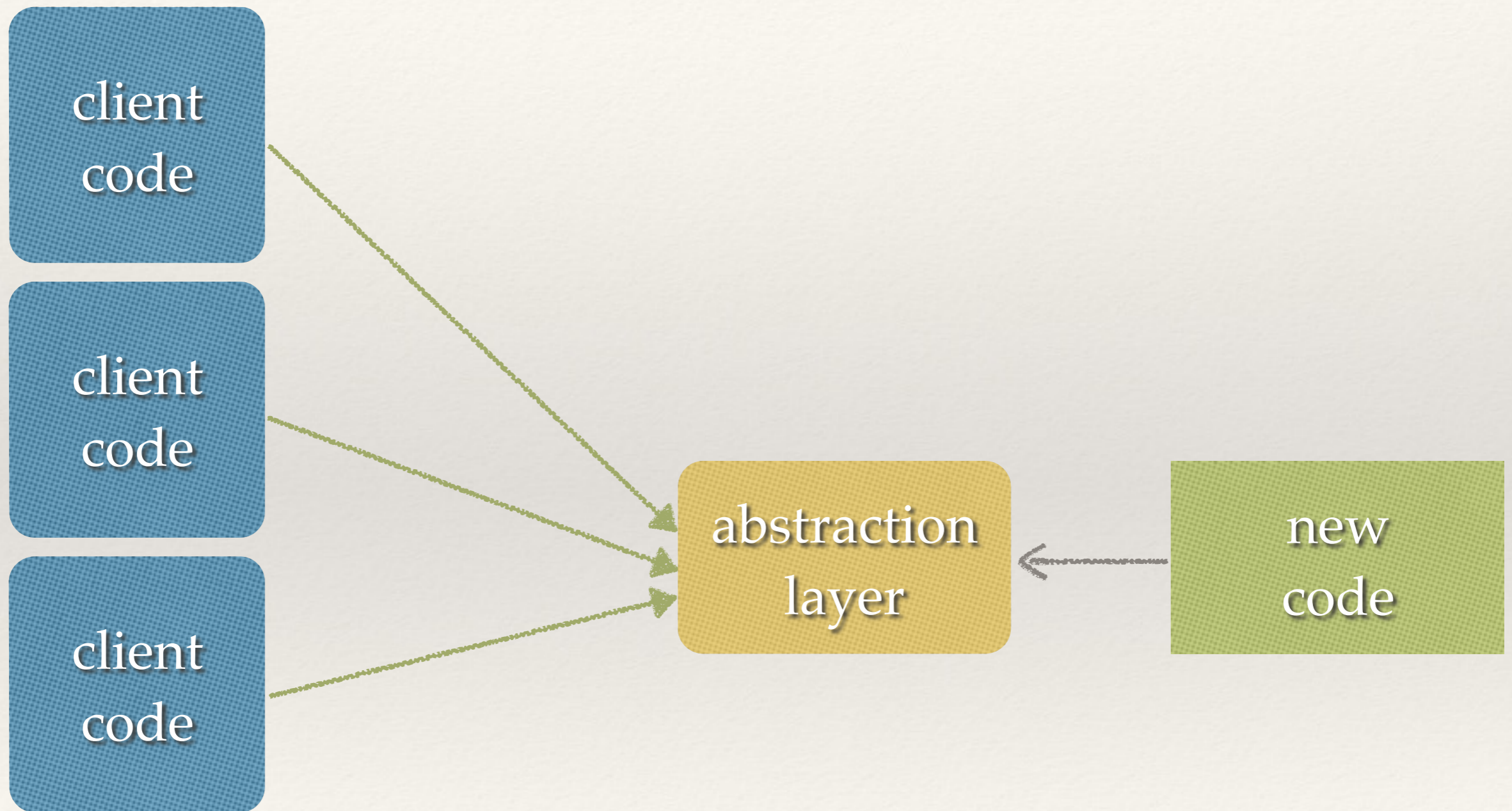
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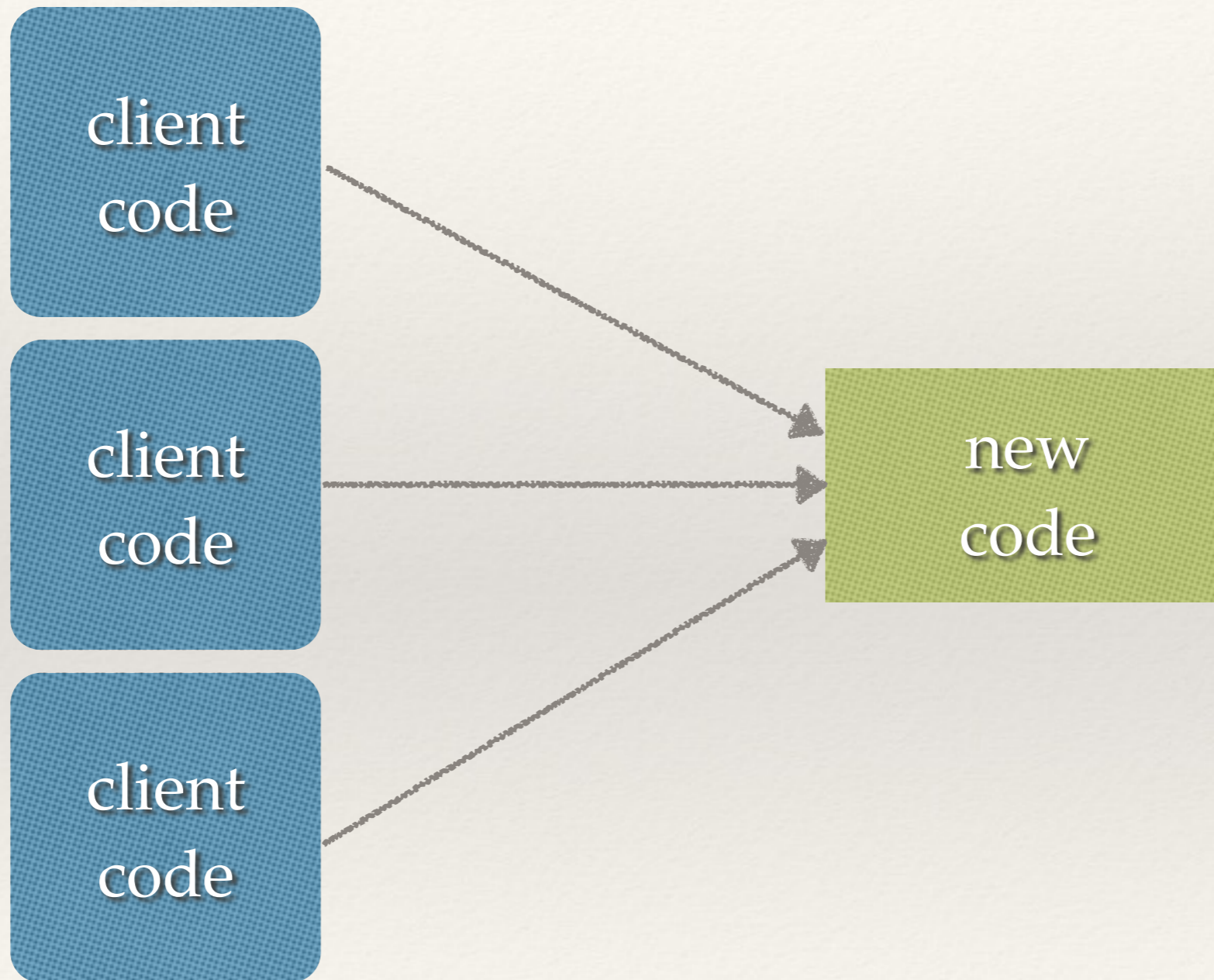
Branching by Abstraction



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Branching by Abstraction

Considerations on Implementation

- ❖ do changes step by step
- ❖ duplicate code is not always bad
- ❖ dead code is not always bad
- ❖ feature toggles will help to ease the pain if the new code does not work as expected

Branching by Abstraction

Further Reading

- ❖ <http://martinfowler.com/bliki/BranchByAbstraction.html>
- ❖ <http://continuousdelivery.com/2011/05/make-large-scale-changes-incrementally-with-branch-by-abstraction/>
- ❖ http://paulhammant.com/blog/branch_by_abstraction.html

Branching by Abstraction

Feature Toggles for Java

- ❖ <http://www.togglz.org/>
- ❖ <http://ff4j.org/>

Thank you!