Refactoring Java Programs with IntelliJ IDEA

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Questions

- Java programmers:
- IntelliJ or Eclipse?

Content

- ▶ Refactoring Java Programs
- ▶ Quickly improve code quality by solving code smells
- ▶ Small examples to show possibilities
- ▶ Let IntelliJ IDEA think about the difficult changes

Content

- ▶ Refactoring Java Programs
- ▶ Quickly improve code quality by solving code smells
- ▶ Small examples to show possibilities
- ▶ Let IntelliJ IDEA think about the difficult changes
- ▶ Build confidence in IntelliJ IDEA's changes

Quick notes

► Please interrupt me if you have any questions

IntelliJ features

- ▶ Out-of-the-box support for many languages
- ▶ Framework specific refactorings
- ▶ Over 40 different kinds of refactoring for Java alone!
- ▶ Smart detection of references and duplicates

A short taste... (Java)

- Rename (File)...
- Change Signature
- Type Migration
- Make Static
- Convert to Instance Method

- Move
- Copy
- Safe Delete
- Extract
- Inline
- Find and Replace Duplicates

- Invert Boolean
- Pull Members Up
- Push Members Down
- ...
-
-

A short taste... (Java)

- Use Interface Where Possible
- Replace Inheritance with Delegation
- Remove middleman
- Wrap Method Return Value

- Convert Anonymous to Inner
- Encapsulate Fields
- Replace Temp with Query
- Replace Constructor with Factory

- Method
- Replace Constructor with Builder
- Generify
- Migrate
-
-
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Today

- ▶ Change Method Signature
- ▶ Convert Anonymous Class to Inner Class
- ▶ Encapsulate Fields
- ▶ Extract Delegate
- ▶ Replace Constructor with Builder/Factory Method
- ▶ Extract Parameter
- ▶ Push/Pull members
- ▶ Remove middleman

To the code!

Ending

- ▶ Next session in a few weeks
- ▶ Topic suggestions welcomed!
- ▶ JetBrains for Students:
  https://www.jetbrains.com/student/

Thank you!