### Where to Go from Here



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#### Overview



Tips on how to use design patterns
Summary of the course



## Tips for Using Patterns



# Patterns can easily complicate things.



#### Bad Usage of Patterns

```
public class HelloWorld {
   public static void main(String[] args) {
     MessageBody messageBody = new MessageBody();
     messageBody.configure("Hello World!");
      AbstractStrategyFactory asf = DefaultFactory.getInstance();
     MessageStrategy strategy = asf.createStrategy(messageBody);
     messageBody.send(strategy);
```

#### Bad Usage of Patterns

```
public class HelloWorld {
  public static void main(String[] args) {
     AbstractFactory factory =
            FactorySingleton.getInstance().getHelloWorldFactory();
      Subject subject = factory.createSubject();
      subject.add(factory.createObserver());
      Command command = factory.createCommand(subject);
      command.execute();
```

#### When to Use a Pattern?

Knowledge Experience



#### Levels of Experience

Level
1 I need a pattern for everything

Level 2 Maybe I need a pattern

Level
3 A pattern fits naturally here



#### Implementation Tips for Patterns



Implement patterns with meaningful names for classes and methods

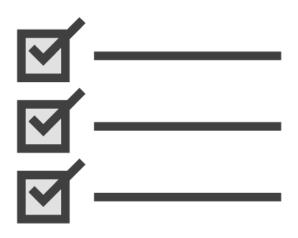
**Practice refactoring** 



# Course Wrap-up



#### Course Summary



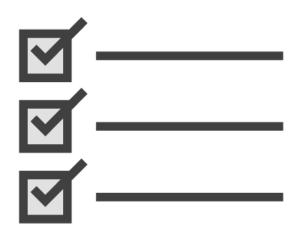
Patterns are reusable and named solutions to recurring problems in a context

OOP building blocks and design principles

Inheritance is not always the best solution



#### Course Summary



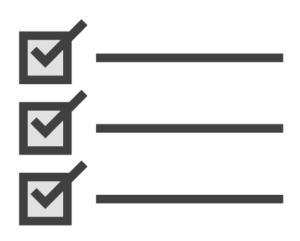
Behavioral patterns

**Creational patterns** 

**Structural patterns** 



#### Course Summary



GoF patterns are the foundation to understand other types of patterns

It's easy to overuse patterns





#### For Beginners

Design Patterns Playbook: Structural Patterns Paolo Perrotta





Design Patterns in Java: Behavioral

**Bryan Hansen** 





Design Patterns in Java: Creational

**Bryan Hansen** 





Design Patterns in Java: Structural

Bryan Hansen





Implementing Design Patterns Using Java 8 Lambda

Jose Paumard

# Thank you

