Introduction to Aspect-oriented Programming (AOP) with Spring AOP and AspectJ

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Why This Course?

- AOP is a very powerful tool
- Foundation of Spring
- Seldom used fully
- Trainings and books often academic

- AOP allows you to add enterprise functionality to your application
- Transactions, security …
- AOP reduces boiler plate code

- Course uses a very practical approach

Modules

- **Spring Quick Start**
  - Basic introduction to Spring Dependency Injection
  - Skip if you already know Spring

- **Why AOP?**
  - How AOP helps to solve problems in enterprise applications

- **Your First Aspect**
  - First example of an aspect

Modules

- **Advice Deep Dive**
  - What code can be used in aspects?

- **Pointcut Deep Dive**
  - How to define where aspects are added to your application

- **Expressing Architecture Using Pointcuts**
  - Make architecture a part of your application

- **How Aspects are Added to Objects**
  - Deeper understanding about Spring AOP's internals

Modules

- **Spring AOP vs. AspectJ**
  - Introduction to AspectJ
  - Compare Spring AOP to AspectJ

- **Spring's Aspect Library**
  - Out-of-the-box aspects for your application

- **Real Life Aspects**
  - Some ideas for your own aspects

- **Next steps**
  - How to get started

Prerequisites

- Java knowledge

- Basic Spring knowledge
- E.g. Dependency Injection
- Covered in the quick start module

- Will use Maven / Spring Tool Suite

Where You Can Find More Information

- **Spring Tool Suite**
  - http://www.springsource.org/sts

- **Spring Reference Documentation**
  - http://static.springsource.org/spring/docs/3.2.x/spring-framework-reference/html/
  - http://static.springsource.org/spring/docs/3.2.x/spring-framework-reference/html/aop.html

- **AspectJ**
  - http://eclipse.org/aspectj/doc/released/adk15notebook/index.html
  - http://eclipse.org/aspectj/doc/released/progguide/index.html

- **Quick Reference for Spring AOP / AspectJ syntax**
  - http://eclipse.org/aspectj/doc/next/quick5.pdf