Annotation Configuration

Spring Fundamentals

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Configuration

The applicationContext.xml

- Just like the XML configuration, we need a way to bootstrap the annotation scanner
- Uses the same conventions as the XML configuration

```xml
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
```

Component Scanner

- **Part of the context namespace**

```
xmlns:context="http://www.springframework.org/schema/context"

http://www.springframework.org/schema/context
http://www.springframework.org/schema/context/spring-context-3.2.xsd"
```

- **Two elements needed to configure**

```
<context:annotation-config />

<context:component-scan base-package="com.pluralsight" />
```

Stereotype Annotations

- **@Component, @Service, @Repository**
- **Semantically the same**
  - @Service and @Repository both extend @Component, but don't add any features
- **@Component**
  - Regular components/beans, any POJO
- **@Service**
  - Service tier where business logic is contained
- **@Repository**
  - Data Access tier / database interaction layer

Autowired

- **Using Annotations is more straightforward**
- **Autowiring method is somewhat hidden because it is tied to where you place the annotation**
- **Member variables**

```java
@Autowired
private CustomerRepository customerRepository;
```

- **Constructor**

```java
@Autowired
public CustomerServiceImpl(CustomerRepository customerRepository) {
    this.customerRepository = customerRepository;
}
```

- **Setter**

```java
@Autowired
public void setCustomerRepository(CustomerRepository customerRepository) {
    this.customerRepository = customerRepository;
}
```

JSR-330

- **Dependency Injection for Java**
- **Beyond the scope of this course**
- **Why use Spring?**

Summary

- **applicationContext.xml**
- **Component Scanner**
- **Stereotype Annotations**
- **Autowired**
- **JSR-330**