

Spring

- mercyblitz

# Spring

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1. Spring
2. Spring Bean
3. Spring Bean
4. Spring
5. XML Spring Bean
6. Properties Spring Bean
7. Java Spring Bean
8. Spring Bean
9. XML Spring IoC
10. Java Spring IoC



# Spring

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- 11. Extensible XML authoring      Spring XML
- 12. Extensible XML authoring
- 13. Properties
- 14. YAML
- 15.



# Spring

- - Spring Bean
    - BeanDefinition
  - Spring Bean
    - PropertyValue
  - Spring
  - Spring
    - PropertySource
  - Spring Profile
    - @Profile

# Spring Bean

- Bean
  - BeanDefinition
    - GenericBeanDefinition BeanDefinition
    - RootBeanDefinition Parent BeanDefinition BeanDefinition
    - AnnotatedBeanDefinition BeanDefinition

# Spring Bean

- Bean
  - PropertyValue
  - - MutablePropertyValue
  - - PropertyValue
- Bean
  - AttributeAccessor
- Bean
  - BeanMetadataElement

# Spring

- Spring XML - beans

beans		
profile	null	Spring Profiles
default-lazy-init	default	outter beans " default-lazy-init" " false"
default-merge	default	outter beans " default-merge" " false"
default-autowire	default	outter beans " default-autowire" " no"
default-autowire-candidates	null	Spring Beans pattern
default-init-method	null	Spring Beans
default-destroy-method	null	Spring Beans

# Spring

- Spring XML

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XML	
<context: annotation-config />	Spring
<context: component-scan />	Spring @Component
<context: load-time-weaver />	Spring LoadTimeWeaver
<context: mbean-export />	Spring Beans JMX Beans
<context: mbean-server />	MBeanServer
<context: property-placeholder />	Spring
<context: property-override />	Spring



# XML

# Spring Bean

- Spring Bean

XML	
<beans: beans />	XML          Spring Beans
<beans: bean />	Spring Bean          BeanDefi ni ti on
<beans: al i as />	Spring Bean          BeanDefi ni ti on
<beans: i mport />	Spring XML

- Xml BeanDefi ni ti onReader

# Properties

# Spring Bean

- Spring Bean

Properties	
(class)	Bean
(abstract)	BeanDefinition
(parent)	parent BeanDefinition
(lazy-init)	

- PropertiesBeanDefinitionReader

# Properties

# Spring Bean

- Spring Bean

Properties	
(ref)	Bean
(scope)	Bean scope
\${n}	n n+1

- PropertiesBeanDefinitionReader

# Java

# Spring Bean

- Spring

Spring		
@Repository		2.0
@Component		2.5
@Service		2.5
@Controller	Web	2.5
@Configuration		3.0

Spring Boot

- " Spring

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# Java

# Spring Bean

- Spring Bean

Spring			
@Bean	XML	<bean>	3.0
@DependsOn	XML	<bean depends-on="..." />	3.0
@Lazy	XML	<bean lazy-init="true false" />	3.0
@Primary	XML	<bean primary="true false" />	3.0
@Role	XML	<bean role="..." />	3.1
@Lookup	XML	<bean lookup-method="...">	4.1

Spring Boot

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# Java

# Spring Bean

- Spring Bean

Spring		
@Autowired	Bean	2.5
@Qualifier	@Autowired	2.5

Java		
@Resource	@Autowired	2.5
@Inject	@Autowired	2.5

Spring Boot

- " Spring

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# Java

# Spring Bean

- Spring Bean

Spring		
@Profile		3.1
@Conditional		4.0

Spring Boot

- " Spring

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# Java

# Spring Bean

- Spring Bean

Spring		
@PostConstruct	XML <bean init-method="..." /> InitializingBean	2.5
@PreDestroy	XML <bean destroy-method="..." /> DisposableBean	2.5

Spring Boot

- " Spring

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# Spring Bean

- Spring BeanDefinition

XML	Xml BeanDefinitionReader	1.0
Properties	PropertiesBeanDefinitionReader	1.0
Java	AnnotatedBeanDefinitionReader	3.0

# Spring Bean

- Spring XML BeanDefinition
  - API - XmlBeanDefinitionReader
    - - Resource
    - - BeanDefinitionDocumentReader
      - XML - Java DOMLevel 3 API
      - BeanDefinition - BeanDefinitionParserDelegate
      - BeanDefinition - BeanDefinitionRegistry

# Spring Bean

- Spring Properties BeanDefinition
  - API - PropertiesBeanDefinitionReader
    - - - Resource
      - - EncodedResource
    - - - java.util.Properties
      - BeanDefinition - API
      - BeanDefinition - BeanDefinitionRegistry

# Spring Bean

- Spring Java BeanDefinition
  - API - AnnotatedBeanDefinitionReader
    - - - java.lang.Class
    - - - ConditionEvaluator
      - Bean - ScopeMetadataResolver
      - BeanDefinition - API
      - BeanDefinition - AnnotationConfigUtils.processCommonDefinitionAnnotations
      - BeanDefinition - BeanDefinitionRegistry

# XML

# Spring IoC

- Spring IoC

XML

		Schema URL
beans	spring-beans	<a href="https://www.springframework.org/schema/beans/spring-beans.xsd">https://www.springframework.org/schema/beans/spring-beans.xsd</a>
context	spring-context	<a href="https://www.springframework.org/schema/context/spring-context.xsd">https://www.springframework.org/schema/context/spring-context.xsd</a>
aop	spring-aop	<a href="https://www.springframework.org/schema/aop/spring-aop.xsd">https://www.springframework.org/schema/aop/spring-aop.xsd</a>
tx	spring-tx	<a href="https://www.springframework.org/schema/tx/spring-tx.xsd">https://www.springframework.org/schema/tx/spring-tx.xsd</a>
util	spring-beans	<a href="https://www.springframework.org/schema/util/spring-util.xsd">https://www.springframework.org/schema/util/spring-util.xsd</a>
tool	spring-beans	<a href="https://www.springframework.org/schema/tool/spring-tool.xsd">https://www.springframework.org/schema/tool/spring-tool.xsd</a>

# Java

# Spring IoC

- Spring IoC

Spring		
@ImportResource	XML <import>	3.0
@Import	Configuration Class	3.0
@ComponentScan	package Spring	3.1

Spring Boot

- " Spring

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# Java

# Spring IoC

- Spring IoC

Spring		
@PropertySource	PropertySource	3.1
@PropertySources	@PropertySource	4.0

Spring Boot

- " Spring

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# Extensible XML authoring

# Spring XML

- Spring XML
  - XML Schema XML
  - NamespaceHandler
  - BeanDefinitionParser XML BeanDefinition
  - XML XML Schema



# Extensible XML authoring

- - AbstractApplicationContext#obtainFreshBeanFactory
    - AbstractRefreshableApplicationContext#refreshBeanFactory
      - AbstractXmlApplicationContext#loadBeanDefinitions
        - ...
          - XmlBeanDefinitionReader#doLoadBeanDefinitions
            - ...
              - BeanDefinitionParserDelegate#parseCustomElement

# Extensible XML authoring

- - BeanDefinitionParserDelegate#parseCustomElement(org.w3c.dom.Element, BeanDefinition)
  - namespace
  - namespace NamespaceHandler
  - ParserContext
  - BeanDefinition

# Properties

- - `@org.springframework.context.annotation.PropertySource`
  - `@org.springframework.context.annotation.PropertySources`
- API
  - `org.springframework.core.env.PropertySource`
  - `org.springframework.core.env.PropertySources`

# YAML

- API
  - org.springframework.beans.factory.config.YamlProcessor
  - org.springframework.beans.factory.config.YamlMapFactoryBean
  - org.springframework.beans.factory.config.YamlPropertiesFactoryBean

## - Spring XML Schema



		Schema URL
beans	spring-beans	<a href="https://www.springframework.org/schema/beans/spring-beans.xsd">https://www.springframework.org/schema/beans/spring-beans.xsd</a>
context	spring-context	<a href="https://www.springframework.org/schema/context/spring-context.xsd">https://www.springframework.org/schema/context/spring-context.xsd</a>
aop	spring-aop	<a href="https://www.springframework.org/schema/aop/spring-aop.xsd">https://www.springframework.org/schema/aop/spring-aop.xsd</a>
tx	spring-tx	<a href="https://www.springframework.org/schema/tx/spring-tx.xsd">https://www.springframework.org/schema/tx/spring-tx.xsd</a>
util	spring-beans	<a href="https://www.springframework.org/schema/util/spring-util.xsd">https://www.springframework.org/schema/util/spring-util.xsd</a>
tool	spring-beans	<a href="https://www.springframework.org/schema/tool/spring-tool.xsd">https://www.springframework.org/schema/tool/spring-tool.xsd</a>

996

- Spring



- Bean

XML Properties

BeanDefinition

- IoC

AOP

XML Properties

IoC

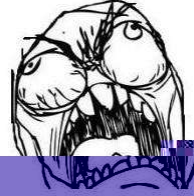
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Properties YAML

PropertySource

- Spring Profile

## - Extensible XML authoring



- XML Schema `spring.handlers` `spring.schemas`  
Spring API
- 
- XML `Spring XML` `DOMLevel 3 API` `API`
- XML `XML` `JAXB`