#### Spring Framework源码阅读

##### 之Bean加载：重名加载

问题描述

Spring Boot 2.2.5

Spring Framework 5.2.6

JDK 1.8

Spring Bean加载的本质是将Bean Name字符串（key）和Bean Definition对象（value）存进beanDefinitionMap（ConcurrentHashMap）中

Spring框架对beanDefinitionMap做了缓存，增加了代码逻辑的复杂度

当两个Java Bean重名时，Spring框架会根据不同情况抛出异常或打印日志

解决

BeanDefinition existingDefinition = this.beanDefinitionMap.get(beanName);  
if (existingDefinition != null) {  
 if (!isAllowBeanDefinitionOverriding()) {  
 throw new BeanDefinitionOverrideException(beanName, beanDefinition, existingDefinition);  
 }  
 else if (existingDefinition.getRole() < beanDefinition.getRole()) {  
 // e.g. was ROLE\_APPLICATION, now overriding with ROLE\_SUPPORT or ROLE\_INFRASTRUCTURE  
 if (logger.isInfoEnabled()) {  
 logger.info("Overriding user-defined bean definition for bean '" + beanName +  
 "' with a framework-generated bean definition: replacing [" +  
 existingDefinition + "] with [" + beanDefinition + "]");  
 }  
 }  
 else if (!beanDefinition.equals(existingDefinition)) {  
 if (logger.isDebugEnabled()) {  
 logger.debug("Overriding bean definition for bean '" + beanName +  
 "' with a different definition: replacing [" + existingDefinition +  
 "] with [" + beanDefinition + "]");  
 }  
 }  
 else {  
 if (logger.isTraceEnabled()) {  
 logger.trace("Overriding bean definition for bean '" + beanName +  
 "' with an equivalent definition: replacing [" + existingDefinition +  
 "] with [" + beanDefinition + "]");  
 }  
 }  
 this.beanDefinitionMap.put(beanName, beanDefinition);  
}

规则<一>：当不允许覆盖重名Bean时，抛出BeanDefinitionOverrideException异常

注 可以在application.yml文件中使用配置项spring.main.allow-bean-definition-overriding配置

规则<二>：当以低@Role优先级覆盖高@Role优先级时，打印info日志

规则<三>：当Bean名字相同，定义不同时，打印debug日志

规则<四>：当Bean重复定义时，打印trace日志

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