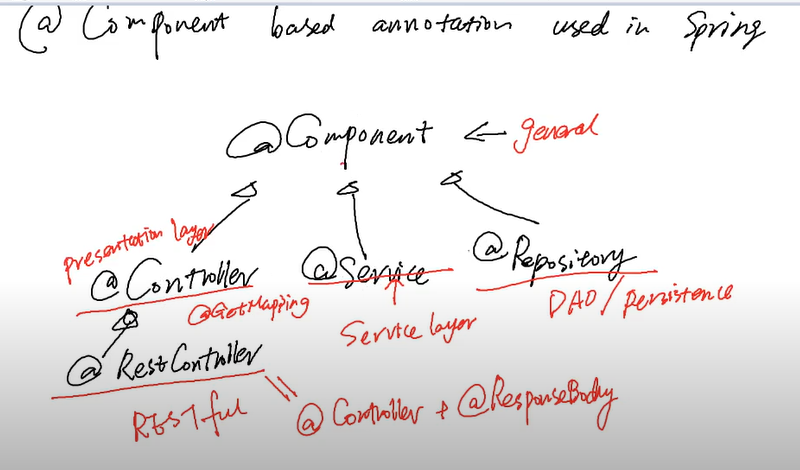
**Spring annotations:**

1. **@Component:** This annotation marks a java class as a bean so that component scanning mechanism of spring can pick it up and pull it into application context.
2. **@Service:** This behaves just like @Component annotation; it does not provide any additional behaviour over the @Component annotation. But it is recommended to use @Service instead of @Component at the service layer classes because it specifies the actual intend of the class better.
3. **@Repository:** This behaves just like @Component annotation but this annotation provides suitable need for DAO layer. It also makes sure that the unchecked exceptions thrown in the DAO layer could be converted into equivalent Spring DAO exceptions. Let’s say if we communicate with the DAO layer without @Repository annotation then this case the exception raised from the DAO layer (Hibernate or JPA) is difficult to trace. i.e. different vendors would throw the exception according to them, so @Repository convert those exceptions into Spring DAO exception and it becomes easy to trace.
4. **@Controller:** This marks the class as spring web MVC controller, where as **@RestController** combines (@Controller + @ResponseBody) which eliminates the needs to annotate every request handling method of the class with @ResponseBody annotation.
5. **@Configuration:** It marks that the class contains one of more beans defined inside and this is going to be a configuration class
6. **@Bean:** Used to explicitly declare a single bean rather than letting spring do it automatically for us and it must be created inside the @Configuration annotated class.



**@Service, @Repository, @Controller, @RestController, @Configuration is nothing but @Component based annotations only.** These @Component and Component based annotations are applied on the class level and there is an implicit one-to-one mapping between the bean (object or instance) and bean name (Class Name or Method name) i.e. they are going to have one-to-one mapping between bean instance and bean name i.e. it has only one instance in the bean factory and bean name by default will be class name by the first later with lower case. And the beans instance will be singleton because by default bean scope is singleton. And one more thing that is fo**r component based annotated class, spring automatically creates bean (Instance)**

**@Bean:** This annotation is applied at the method level. If we want to have that spring declares a bean then first we will use component annotation (like @Configuration) and second @Bean. The bean name would be method name by default. As for component based annotated class, spring automatically creates bean (Instance) but for @Bean annotated method, we have to create bean (instance) explicitly.

**Conclusion:** So basically when we annotate any class with Component based annotation then spring internally creates instance of these classes implicitly and put it into spring application context and make available these instances to be used into other class with the help of @Autowired annotation.

But in case if we have any class which is not annotated with Component based annotation then in that case spring will not take care of creating instance of these classes internally, user or developer has to create the instances of these classes.

Generally we create the object of such classes using @Bean annotation inside any classes which is annotated with component based annotation like @Configuration.

So usually we create a method of the class type return the class object here and we have to annotate this method with @Bean annotation.

Now first spring will create the object of the class annotated with @Configuration and further when if spring found any method annotated with @Bean then create the instance of that class.

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| **package** com.annotation.demo.configuration;  **import** org.springframework.context.annotation.Bean;  **import** org.springframework.context.annotation.Configuration;  @Configuration  **public** **class** MyConfig {  **public** **void** getName() {  System.***out***.println("This is my Configuration class");  }  @Bean  **public** Student getStudentBean() {  **return** **new** Student();  }  } | **package** com.annotation.demo.configuration;  **public** **class** Student {  **public** **void** getStudent() {  System.***out***.println("This is my Student class...");  }  } |
| **package** com.annotation.demo.configuration;  **import** org.springframework.context.ApplicationContext;  **import** org.springframework.context.annotation.AnnotationConfigApplicationContext;  **public** **class** TestMain {  **public** **static** **void** main(String[] args) {    ApplicationContext context = **new** AnnotationConfigApplicationContext(MyConfig.**class**);  Student bean = context.getBean("getStudentBean",Student.**class**);  bean.getStudent();  }  }  Output: Console  21:36:07.813 [main] DEBUG org.springframework.beans.factory.support.DefaultListableBeanFactory - Creating shared instance of singleton bean '**myConfig**'  21:36:07.818 [main] DEBUG org.springframework.beans.factory.support.DefaultListableBeanFactory - Creating shared instance of singleton bean **'getStudentBean'**  **This is my Student class...**  **So here we can see that first spring create the class object annotated with @Configuration and then further it creates the object of Student class and finally called the Student class method.** | |

@SpringBootApplication is a convenience annotation that adds all of the following:

* @Configuration: Marks the class as a source of bean definitions for the application context.
* @EnableAutoConfiguration: Tells Spring Boot to start adding beans based on classpath settings, other beans, and various property settings.
* @EnableWebMvc: Flags the application as a web application and activates key behaviors, such as setting up a  DispatcherServlet. Spring Boot adds it automatically when it sees spring-webmvc on the classpath.
* @ComponentScan: Tells Spring to look for other components, configurations, and services in the the com.example.testingweb package, letting it find the HelloController class.

**@SpringBootApplication**

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| [**-->[Open Declaration](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:\/Users\/saraswati\/.m2\/repository\/org\/springframework\/boot\/spring-boot-autoconfigure\/1.5.21.RELEASE\/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3corg.springframework.boot.autoconfigure(SpringBootApplication.class%E2%98%83SpringBootApplication)**](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure(SpringBootApplication.class%E2%98%83SpringBootApplication)[**org**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg)**.**[**springframework**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework)**.**[**boot**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot)**.**[**autoconfigure**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure)**.SpringBootApplication**  @[SpringBootConfiguration](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot%5C/1.5.21.RELEASE%5C/spring-boot-1.5.21.RELEASE.jar%3Corg.springframework.boot(SpringBootConfiguration.class%E2%98%83SpringBootConfiguration) @[EnableAutoConfiguration](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure(EnableAutoConfiguration.class%E2%98%83EnableAutoConfiguration) @[ComponentScan](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan.class%E2%98%83ComponentScan)([excludeFilters](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan.class%E2%98%83ComponentScan~excludeFilters)={@[Filter](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan$Filter.class%E2%98%83Filter)([type](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan$Filter.class%E2%98%83Filter~type)=[CUSTOM](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(FilterType.class%E2%98%83FilterType%5ECUSTOM), [classes](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan$Filter.class%E2%98%83Filter~classes)={[TypeExcludeFilter](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot%5C/1.5.21.RELEASE%5C/spring-boot-1.5.21.RELEASE.jar%3Corg.springframework.boot.context(TypeExcludeFilter.class%E2%98%83TypeExcludeFilter).class}), @[Filter](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan$Filter.class%E2%98%83Filter)([type](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan$Filter.class%E2%98%83Filter~type)=[CUSTOM](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(FilterType.class%E2%98%83FilterType%5ECUSTOM), [classes](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.context.annotation(ComponentScan$Filter.class%E2%98%83Filter~classes)={[AutoConfigurationExcludeFilter](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure(AutoConfigurationExcludeFilter.class%E2%98%83AutoConfigurationExcludeFilter).class})}) @[Target](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target~value)={[TYPE](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(ElementType.class%E2%98%83ElementType%5ETYPE)}) @[Retention](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention~value)=[RUNTIME](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(RetentionPolicy.class%E2%98%83RetentionPolicy%5ERUNTIME)) @[Documented](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Documented.class%E2%98%83Documented) @[Inherited](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Inherited.class%E2%98%83Inherited)  Indicates a [configuration](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure(SpringBootApplication.class%E2%98%83SpringBootApplication%E2%98%82Configuration) class that declares one or more [@Bean](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure(SpringBootApplication.class%E2%98%83SpringBootApplication%E2%98%82Bean) methods and also triggers [auto-configuration](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure(SpringBootApplication.class%E2%98%83SpringBootApplication%E2%98%82EnableAutoConfiguration) and [component scanning](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/boot%5C/spring-boot-autoconfigure%5C/1.5.21.RELEASE%5C/spring-boot-autoconfigure-1.5.21.RELEASE.jar%3Corg.springframework.boot.autoconfigure(SpringBootApplication.class%E2%98%83SpringBootApplication%E2%98%82ComponentScan). This is a convenience annotation that is equivalent to declaring @Configuration, @EnableAutoConfiguration and @ComponentScan.  **Since:**  1.2.0  **Author:**  Phillip Webb  StephaneNicoll |

**@Controller**

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| [**-->[Open Declaration](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:\/Users\/saraswati\/.m2\/repository\/org\/springframework\/spring-context\/4.3.24.RELEASE\/spring-context-4.3.24.RELEASE.jar%3corg.springframework.stereotype(Controller.class%E2%98%83Controller)**](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.stereotype(Controller.class%E2%98%83Controller)[**org**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg)**.**[**springframework**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework)**.**[**stereotype**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.stereotype)**.Controller**  @[Component](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component) @[Target](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target~value)={[TYPE](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(ElementType.class%E2%98%83ElementType%5ETYPE)}) @[Retention](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention~value)=[RUNTIME](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(RetentionPolicy.class%E2%98%83RetentionPolicy%5ERUNTIME)) @[Documented](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Documented.class%E2%98%83Documented)  Indicates that an annotated class is a "Controller" (e.g. a web controller).  This annotation serves as a specialization of [@Component](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.stereotype(Controller.class%E2%98%83Controller%E2%98%82Component), allowing for implementation classes to be autodetected through classpath scanning. It is typically used in combination with annotated handler methods based on the [org.springframework.web.bind.annotation.RequestMapping](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.stereotype(Controller.class%E2%98%83Controller%E2%98%82org.springframework.web.bind.annotation.RequestMapping) annotation. |

**@RestController:**

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| [**-->[Open Declaration](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:\/Users\/saraswati\/.m2\/repository\/org\/springframework\/spring-web\/4.3.24.RELEASE\/spring-web-4.3.24.RELEASE.jar%3corg.springframework.web.bind.annotation(RestController.class%E2%98%83RestController)**](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestController.class%E2%98%83RestController)[**org**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg)**.**[**springframework**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework)**.**[**web**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web)**.**[**bind**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind)**.**[**annotation**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation)**.RestController**  @[Controller](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.24.RELEASE%5C/spring-context-4.3.24.RELEASE.jar%3Corg.springframework.stereotype(Controller.class%E2%98%83Controller) @[ResponseBody](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(ResponseBody.class%E2%98%83ResponseBody) @[Target](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target~value)={[TYPE](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(ElementType.class%E2%98%83ElementType%5ETYPE)}) @[Retention](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention~value)=[RUNTIME](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(RetentionPolicy.class%E2%98%83RetentionPolicy%5ERUNTIME)) @[Documented](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Documented.class%E2%98%83Documented)  A convenience annotation that is itself annotated with [@Controller](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestController.class%E2%98%83RestController%E2%98%82Controller) and [@ResponseBody](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestController.class%E2%98%83RestController%E2%98%82ResponseBody).  Types that carry this annotation are treated as controllers where [@RequestMapping](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestController.class%E2%98%83RestController%E2%98%82RequestMapping) methods assume [@ResponseBody](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestController.class%E2%98%83RestController%E2%98%82ResponseBody) semantics by default.  **NOTE:**@RestController is processed if an appropriate HandlerMapping-HandlerAdapter pair is configured such as the RequestMappingHandlerMapping-RequestMappingHandlerAdapter pair which are the default in the MVC Java config and the MVC namespace. In particular @RestController is not supported with the DefaultAnnotationHandlerMapping-AnnotationMethodHandlerAdapter pair both of which are also deprecated. |

**@ResponseBody**

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| [**-->[Open Declaration](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:\/Users\/saraswati\/.m2\/repository\/org\/springframework\/spring-web\/4.3.24.RELEASE\/spring-web-4.3.24.RELEASE.jar%3corg.springframework.web.bind.annotation(ResponseBody.class%E2%98%83ResponseBody)**](eclipse-open:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(ResponseBody.class%E2%98%83ResponseBody)[**org**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg)**.**[**springframework**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework)**.**[**web**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web)**.**[**bind**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind)**.**[**annotation**](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation)**.ResponseBody**  @[Target](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target~value)={[METHOD](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(ElementType.class%E2%98%83ElementType%5EMETHOD), [TYPE](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(ElementType.class%E2%98%83ElementType%5ETYPE)}) @[Retention](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention)([value](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention~value)=[RUNTIME](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(RetentionPolicy.class%E2%98%83RetentionPolicy%5ERUNTIME)) @[Documented](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Program%20Files%5C/Java%5C/jre1.8.0_211%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Documented.class%E2%98%83Documented)  Annotation that indicates a method return value should be bound to the web response body. Supported for annotated handler methods in Servlet environments.  As of version 4.0 this annotation can also be added on the type level in which case it is inherited and does not need to be added on the method level.  **Since:**  3.0  **Author:**  ArjenPoutsma  **See Also:**  [RequestBody](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(ResponseBody.class%E2%98%83ResponseBody%E2%98%82RequestBody)  [RestController](eclipse-javadoc:%E2%98%82=spring-boot-first-web-application/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.24.RELEASE%5C/spring-web-4.3.24.RELEASE.jar%3Corg.springframework.web.bind.annotation(ResponseBody.class%E2%98%83ResponseBody%E2%98%82RestController) |

**Note**: We don’t need to use @ResponseBody annotation while using @RestController because @RestController is the combination of (@Controller + @ResponseBody)

**Note: @ResponseBody annotation it used to print controller method response into browser. But if we are printing response from view (jsp) then we need not to use this annotation.**

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| **(@RequestParamStringname, ModelMapmodel)**  public String loginMessage(@RequestParam String name, **ModelMap**model){  model.put("namekey", name);  return "login"; Here we have created name as string request parameter using @RequestParam annotation and putting this request parameter value into model and using model put method we are putting this value into model key and then finally using this key we print the request parameter value into jsp. My First JSP!!! welcome:${namekey} |

**@RestControllerAdvice**

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| A convenience annotation that is itself annotated with [@ControllerAdvice](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestControllerAdvice.class%E2%98%83RestControllerAdvice%E2%98%82ControllerAdvice) and [@ResponseBody](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestControllerAdvice.class%E2%98%83RestControllerAdvice%E2%98%82ResponseBody).  Types that carry this annotation are treated as controller advice where [@ExceptionHandler](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestControllerAdvice.class%E2%98%83RestControllerAdvice%E2%98%82ExceptionHandler) methods assume [@ResponseBody](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(RestControllerAdvice.class%E2%98%83RestControllerAdvice%E2%98%82ResponseBody) semantics by default.  **NOTE:** @RestControllerAdvice is processed if an appropriate HandlerMapping-HandlerAdapter pair is configured such as the RequestMappingHandlerMapping-RequestMappingHandlerAdapter pair which are the default in the MVC Java config and the MVC namespace. In particular @RestControllerAdvice is not supported with the DefaultAnnotationHandlerMapping-AnnotationMethodHandlerAdapter pair both of which are also deprecated.  **Since:**  4.3  **Author:**  Rossen Stoyanchev |

**@ControllerAdvice:**

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| Indicates the annotated class assists a "Controller".  Serves as a specialization of [@Component](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82Component), allowing for implementation classes to be autodetected through classpath scanning.  It is typically used to define [@ExceptionHandler](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82ExceptionHandler), [@InitBinder](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82InitBinder), and [@ModelAttribute](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82ModelAttribute) methods that apply to all [@RequestMapping](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82RequestMapping) methods.  One of [annotations()](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82%E2%98%82annotations%E2%98%82), [basePackageClasses()](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82%E2%98%82basePackageClasses%E2%98%82), [basePackages()](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82%E2%98%82basePackages%E2%98%82) or its alias [value()](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-web%5C/4.3.2.RELEASE%5C/spring-web-4.3.2.RELEASE.jar%3Corg.springframework.web.bind.annotation(ControllerAdvice.class%E2%98%83ControllerAdvice%E2%98%82%E2%98%82value%E2%98%82) may be specified to define specific subsets of Controllers to assist. When multiple selectors are applied, OR logic is applied - meaning selected Controllers should match at least one selector. The default behavior (i.e. if used without any selector), the @ControllerAdvice annotated class will assist all known Controllers.  Note that those checks are done at runtime, so adding many attributes and using multiple strategies may have negative impacts (complexity, performance).  **Since:**  3.2  **Author:**  Rossen Stoyanchev  Brian Clozel  Sam Brannen |

Difference between @Controller Vs @ControllerAdvise

Difference between @RestController Vs @RestControllerAdvice

Difference between @Controller Vs RestController

@Component

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| [--> [Open Declaration](eclipse-open:%E2%98%82=first-rest-springboot-project/C:\/Users\/saraswati\/.m2\/repository\/org\/springframework\/spring-context\/4.3.2.RELEASE\/spring-context-4.3.2.RELEASE.jar%3corg.springframework.stereotype(Component.class%E2%98%83Component)](eclipse-open:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component)[org](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg).[springframework](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework).[stereotype](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype).Component @[Target](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target)([value](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target~value)={[TYPE](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(ElementType.class%E2%98%83ElementType%5ETYPE)}) @[Retention](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention)([value](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention~value)=[RUNTIME](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(RetentionPolicy.class%E2%98%83RetentionPolicy%5ERUNTIME)) @[Documented](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Documented.class%E2%98%83Documented)  Indicates that an annotated class is a "component". Such classes are considered as candidates for auto-detection when using annotation-based configuration and classpath scanning.  Other class-level annotations may be considered as identifying a component as well, typically a special kind of component: e.g. the [@Repository](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component%E2%98%82Repository) annotation or AspectJ's [@Aspect](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component%E2%98%82org.aspectj.lang.annotation.Aspect) annotation.  **Since:**  2.5  **Author:**  Mark Fisher  **See Also:**  @[Repository](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component%E2%98%82Repository)  @[Service](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component%E2%98%82Service)  @[Controller](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component%E2%98%82Controller)  [org.springframework.context.annotation.ClassPathBeanDefinitionScanner](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component%E2%98%82org.springframework.context.annotation.ClassPathBeanDefinitionScanner) |

@Service:

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| [--> [Open Declaration](eclipse-open:%E2%98%82=first-rest-springboot-project/C:\/Users\/saraswati\/.m2\/repository\/org\/springframework\/spring-context\/4.3.2.RELEASE\/spring-context-4.3.2.RELEASE.jar%3corg.springframework.stereotype(Service.class%E2%98%83Service)](eclipse-open:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Service.class%E2%98%83Service)[org](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg).[springframework](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework).[stereotype](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype).Service @[Component](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Component.class%E2%98%83Component) @[Target](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target)([value](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Target.class%E2%98%83Target~value)={[TYPE](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(ElementType.class%E2%98%83ElementType%5ETYPE)}) @[Retention](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention)([value](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Retention.class%E2%98%83Retention~value)=[RUNTIME](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(RetentionPolicy.class%E2%98%83RetentionPolicy%5ERUNTIME)) @[Documented](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Program%20Files%5C/Java%5C/jdk1.8.0_211%5C/jre%5C/lib%5C/rt.jar%3Cjava.lang.annotation(Documented.class%E2%98%83Documented)  Indicates that an annotated class is a "Service", originally defined by Domain-Driven Design (Evans, 2003) as "an operation offered as an interface that stands alone in the model, with no encapsulated state."  May also indicate that a class is a "Business Service Facade" (in the Core J2EE patterns sense), or something similar. This annotation is a general-purpose stereotype and individual teams may narrow their semantics and use as appropriate.  This annotation serves as a specialization of [@Component](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Service.class%E2%98%83Service%E2%98%82Component), allowing for implementation classes to be autodetected through classpath scanning.  **Since:**  2.5  **Author:**  Juergen Hoeller  **See Also:**  [Component](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Service.class%E2%98%83Service%E2%98%82Component)  [Repository](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Service.class%E2%98%83Service%E2%98%82Repository) |

Difference between @Component & @Service @Repository

@Repository

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Teams implementing traditional J2EE patterns such as "Data Access Object" may also apply this stereotype to DAO classes, though care should be taken to understand the distinction between Data Access Object and DDD-style repositories before doing so. This annotation is a general-purpose stereotype and individual teams may narrow their semantics and use as appropriate.  A class thus annotated is eligible for Spring [DataAccessException](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Repository.class%E2%98%83Repository%E2%98%82org.springframework.dao.DataAccessException) translation when used in conjunction with a [PersistenceExceptionTranslationPostProcessor](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Repository.class%E2%98%83Repository%E2%98%82org.springframework.dao.annotation.PersistenceExceptionTranslationPostProcessor). The annotated class is also clarified as to its role in the overall application architecture for the purpose of tooling, aspects, etc.  As of Spring 2.5, this annotation also serves as a specialization of [@Component](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Repository.class%E2%98%83Repository%E2%98%82Component), allowing for implementation classes to be autodetected through classpath scanning.  **Since:**  2.0  **Author:**  Rod Johnson  Juergen Hoeller  **See Also:**  [Component](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Repository.class%E2%98%83Repository%E2%98%82Component)  [Service](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Repository.class%E2%98%83Repository%E2%98%82Service)  [org.springframework.dao.DataAccessException](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Repository.class%E2%98%83Repository%E2%98%82org.springframework.dao.DataAccessException)  [org.springframework.dao.annotation.PersistenceExceptionTranslationPostProcessor](eclipse-javadoc:%E2%98%82=first-rest-springboot-project/C:%5C/Users%5C/saraswati%5C/.m2%5C/repository%5C/org%5C/springframework%5C/spring-context%5C/4.3.2.RELEASE%5C/spring-context-4.3.2.RELEASE.jar%3Corg.springframework.stereotype(Repository.class%E2%98%83Repository%E2%98%82org.springframework.dao.annotation.PersistenceExceptionTranslationPostProcessor) |