Core Spring Annotations

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| ANNOTATION | USE | DESCRIPTION |
| **@Autowired** | Constructor, Field, Method | Declares a constructor, field, setter method, or configuration method to be autowired by type. Items annotated with @Autowired do not have to be public. |
| **@Configurable** | Type | Used with to declare types whose properties should be injected, even if they are not instantiated by Spring. Typically used to inject the properties of domain objects. |
| **@Order** | Type, Method, Field | Defines ordering, as an alternative to implementing the org. springframework.core.Ordered interface. |
| **@Qualifier** | Field, Parameter, Type, Annotation Type | Guides autowiring to be performed by means other than by type. |
| **@Required** | Method (setters) | Specifies that a particular property must be injected or else the configuration will fail. |
| **@Scope** | Type | Specifies the scope of a bean, either singleton, prototype, request, session, or some custom scope. |
| **@ComponentScan** | Make Spring scan the package for the @Configuration classes. | |
| **@Configuration** | Mark a class as a source of bean definitions. | |
| **@Bean** | Indicates that a method produces a bean to be managed by the Spring container. | |
| **@Lazy** | Makes @Bean or @Component be initialized on demand rather than eagerly. | |
| **@Value** | Indicates a default value expression for the field or parameter, typically something like | |

Stereotyping Annotations

| ANNOTATION | USE | DESCRIPTION |
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| **@Component** | Type | Generic stereotype annotation for any Spring-managed component. |
| **@Controller** | Type | Stereotypes a component as a Spring MVC controller. |
| **@Repository** | Type | Stereotypes a component as a repository. Also indicates that SQLExceptions thrown from the component's methods should be translated into Spring DataAccessExceptions. |
| **@Service** | Type | Stereotypes a component as a service. |

Spring MVC Annotations

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| **ANNOTATION** | **USE** | **DESCRIPTION** |
| **@Controller** | Type | Stereotypes a component as a Spring MVC controller. |
| **@InitBinder** | Method | Annotates a method that customizes data binding. |
| **@ModelAttribute** | Parameter, Method | When applied to a method, used to preload the model with the value returned from the method. When applied to a parameter, binds a model attribute to the parameter. table |
| **@RequestMapping** | Method, Type | Maps a URL pattern and/or HTTP method to a method or controller type. |
| **@RequestParam** | Parameter | Binds a request parameter to a method parameter. |
| **@SessionAttributes** | Type | Specifies that a model attribute should be stored in the session. |

Transaction Annotations

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| **ANNOTATION** | **USE** | **DESCRIPTION** |
| **@Transactional** | Method, Type | Declares transactional boundaries and rules on a bean and/or its methods. |

Aspect Annotations

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| ANNOTATION | USE | DESCRIPTION |
| **@Aspect** | Type | Declares a class to be an aspect. |
| **@After** | Method | Declares a method to be called after a pointcut completes. |
| **@AfterReturning** | Method | Declares a method to be called after a pointcut returns successfully. |
| **@AfterThrowing** | Method | Declares a method to be called after a pointcut throws an exception. |
| **@Around** | Method | Declares a method that will wrap the pointcut. |
| **@Before** | Method | Declares a method to be called before proceeding to the pointcut. |
| **@DeclareParents** | Static Field | Declares that matching types should be given new parents,that is, it introduces new functionality into matching types. |
| **@Pointcut** | Method | Declares an empty method as a pointcut placeholder method. |

JSR-250 Annotations

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| ANNOTATION | USE | DESCRIPTION |
| **@PostConstruct** | Method | Indicates a method to be invoked after a bean has been created and dependency injection is complete. Used to perform any initialization work necessary. |
| **@PreDestroy** | Method | Indicates a method to be invoked just before a bean is removed from the Spring context. Used to perform any cleanup work necessary. |
| **@Resource** | Method, Field | Indicates that a method or field should be injected with a named resource (by default, another bean). |

Testing Annotations

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| ANNOTATION | USE | DESCRIPTION |
| **@AfterTransaction** | Method | Used to identify a method to be invoked after a transaction has completed. |
| **@BeforeTransaction** | Method | Used to identify a method to be invoked before a transaction starts. |
| **@ContextConfiguration** | Type | Configures a Spring application context for a test. |
| **@DirtiesContext** | Method | Indicates that a method dirties the Spring container and thus it must be rebuilt after the test completes. |
| **@ExpectedException** | Method | Indicates that the test method is expected to throw a specific exception. The test will fail if the exception is not thrown. |
| **@IfProfileValue** | Type, Method | Indicates that the test class or method is enabled for a specific profile configuration. |
| **@NotTransactional** | Method | Indicates that a test method must not execute in a transactional context. |
| **@ProfileValueSourceConfiguration** | Type | Identifies an implementation of a profile value source. The absence of this annotation will cause profile values to be loaded from system properties. |
| **@Repeat** | Method | Indicates that the test method must be repeated a specific number of times. |
| **@Rollback** | Method | Specifies whether or not the transaction for the annotated method should be rolled back or not. |
| **@TestExecutionListeners** | Type | Identifies zero or more test execution listeners for a test class. |
| **@Timed** | Method | Specifies a time limit for the test method. If the test does not complete before the time has expired, the test will fail. |
| **@TransactionConfiguration** | Type | Configures test classes for transactions, specifying the transaction manager and/or the default rollback rule for all test methods in a test class. |

**Spring Boot and Web annotations**

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| ANNOTATION | | DISCRIPTION |
| @SpringBootApplication | uses  @Configuration, @EnableAutoConfiguration and @ComponentScan | |
| @EnableAutoConfiguration | make Spring guess the configuration based on the classpath. | |
| @ResponseBody | makes Spring bind method’s return value to the web response body. | |
| @RequestParam | bind HTTP parameters into method arguments. | |
| @PathVariable | binds placeholder from the URI to the method parameter. | |