

Spring Professional Exam Tutorial v5.0

Question 04

Question 04 - What things affect what Spring Boot sets up?

Spring Boot uses autoconfiguration to detect dependencies on the class path, based on detected dependencies, spring beans are configured to allow integration with technologies, like JPA, Data Sources, Embedded Databases, Template Rendering engines etc.

Spring Boot searches for `META-INF/spring.factories` on classpath that should contain entry `org.springframework.boot.autoconfigure.EnableAutoConfiguration` that lists all autoconfiguration classes provided by the autoconfiguration module.

Autoconfiguration class is using `@ConditionalOn...` annotations to specify under which conditions, certain Autoconfiguration should be applied.

Spring Boot provides starter modules, which are empty jars with set of dependencies specified with correct dependencies versions to allow easy start with the library.

Starter module may provide only set of dependencies, or set of dependencies with autoconfiguration code.

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Spring Boot supports following Conditional Annotations for AutoConfiguration classes:

- ▶ `ConditionalOnBean` - **presence** of Spring Bean
- ▶ `ConditionalOnMissingBean` - **absence** of Spring Bean
- ▶ `ConditionalOnClass` - **presence** of class on classpath
- ▶ `ConditionalOnMissingClass` - **absence** of class on classpath
- ▶ `ConditionalOnCloudPlatform` - if specified cloud platform is active - for example **Cloud Foundry**
- ▶ `ConditionalOnExpression` - if SpEL expression is true
- ▶ `ConditionalOnJava` - **presence** of Java in specified version
- ▶ `ConditionalOnJndi` - if JNDI location exists
- ▶ `ConditionalOnWebApplication` - if a web application that uses **WebApplicationContext** or **StandardServletEnvironment**
- ▶ `ConditionalOnNotWebApplication` - application that is not a web application
- ▶ `ConditionalOnProperty` - **presence** of spring property
- ▶ `ConditionalOnResource` - **presence** of resource
- ▶ `ConditionalOnSingleCandidate` - only one candidate for the bean found

