

Spring Professional Exam Tutorial v5.0

Question 24

Question 24 - What do you have to configure to use JPA with Spring? How does Spring Boot make this easier?

Following steps are required to work with JPA in Spring Framework:

- ▶ **Declare maven dependencies:**
 - ▶ JPA API - `javax.persistence:javax.persistence-api`
 - ▶ Spring ORM - `org.springframework:spring-orm`
 - ▶ ORM of your choice, for example - `org.hibernate:hibernate-core`
 - ▶ Database Driver, for example - `org.hsqldb:hsqldb`
 - ▶ Optionally, but recommended, Spring Data JPA - `org.springframework.data:spring-data-jpa`
- ▶ **Define DataSource Bean**
- ▶ **Define PlatformTransactionManager, in case of JPA JpaTransactionManager**
- ▶ **Define EntityManagerFactoryBean**
 - ▶ `LocalContainerEntityManagerFactoryBean` for standalone application
 - ▶ `EntityManagerFactory` from JNDI
 - ▶ `LocalEntityManagerFactoryBean` for Test purposes
- ▶ **Define @Entity classes with at least on @Id field**
- ▶ **Define DAO classes, or use Spring Data JPA Repositories**

Question 24 - What do you have to configure to use JPA with Spring? How does Spring Boot make this easier?

Spring Boot simplifies JPA setup by:

- ▶ Providing `spring-boot-starter-data-jpa` dependency which includes all required dependencies
- ▶ Providing auto-configuration for JPA
- ▶ Automatically defines `PlatformTransactionManager`, `EntityManager` and other required beans
- ▶ Allows Data Source to be configured via properties
- ▶ Provides out-of-the-box support for `Hikari Connection Pool`
- ▶ Provides default properties to JPA
- ▶ Automatically creates DAO beans for Repositories

