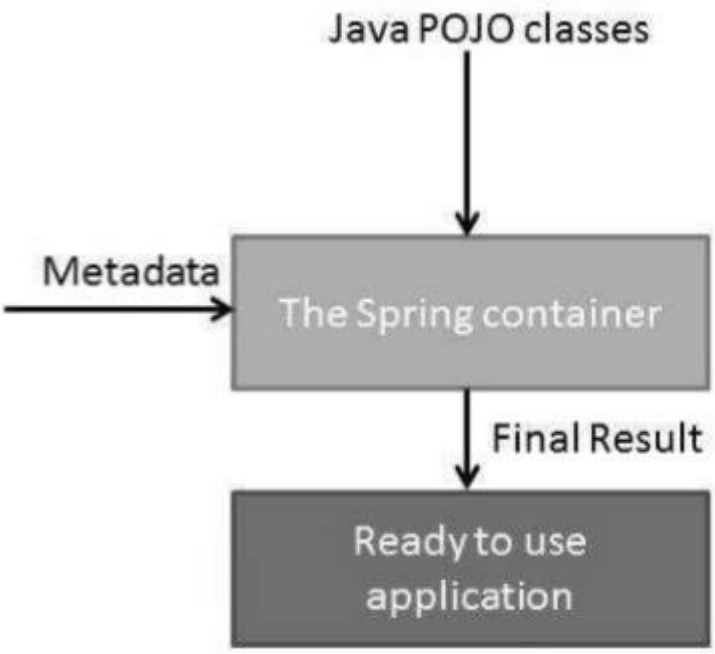
IoC container

The Spring IoC container is the core of the Spring Framework. The container will create the objects, wire them together, configure them, and manage their complete life cycle from creation till destruction. The Spring container uses dependency injection to manage the components that make up an application. These objects are called Spring Beans.

The container gets its instructions on what objects to instantiate, configure, and assemble by reading the configuration metadata provided. The configuration metadata can be represented either by XML, Java annotations, or Java code. The following diagram represents a high-level view of how Spring works. The Spring IoC container makes use of Java POJO classes and configuration metadata to produce a fully configured and executable system or application.



Spring bean life cycle

The life cycle of a Spring bean is easy to understand. When a bean is instantiated, it may be required to perform some initialization to get it into a usable state. Similarly, when the bean is no longer required and is removed from the container, some cleanup may be required.

To define setup and teardown for a bean, we simply declare the <bean> with init-method and/or destroy-method parameters. The init-method attribute specifies a method that is to be called on the bean immediately upon instantiation. Similarly, destroy-method specifies a method that is called just before a bean is removed from the container.

Initialization callbacks See

org.springframework.beans.factory.InitializingBean interface

Destruction callbacks See

org.springframework.beans.factory.DisposableBean interface