

SPRING BOOT NOTES

What is Spring Boot

- Spring Boot provides a good platform for Java developers to develop a stand-alone and production-grade spring application that you can just run.
- Spring boot application needs a very little spring configuration.

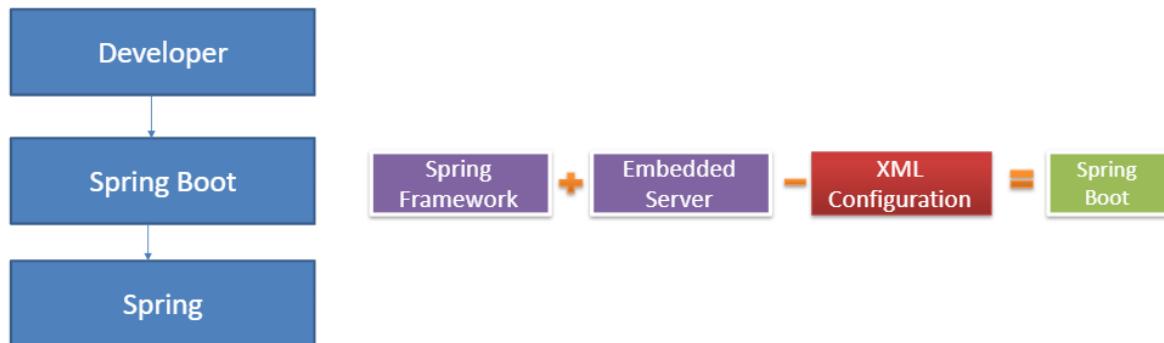
Why Spring Boot???

- It has embedded servers(Tomcat, Jetty).
- Uses build tools like Maven or Gradle.
- It has in memory Database.
- It provides a flexible way to configure Java beans, XML configuration and Database transactions.
- It allows us to develop an annotation-based spring applications.
- No manual configuration is needed, everything is autoconfigured.

To download Spring Boot: <https://spring.io/tools>

Where Spring Boot fits in

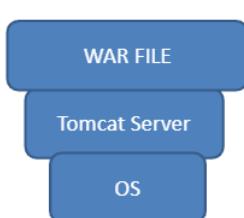
- Spring boot is not a replacement of Spring Framework.



Spring Application vs Spring boot Application

Spring Application

- Generate a WAR file and deploy the WAR file in the server

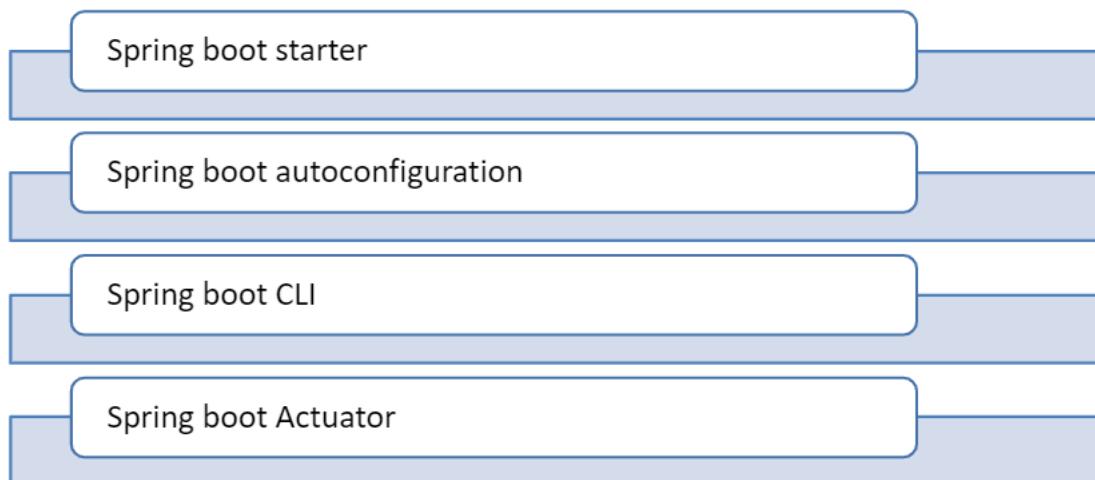


Spring Boot Application

- Inside the JAR file the embedded tomcat will be available, so we can just run it.



Spring Boot Components



Spring Boot Starter

The Spring boot starter provides the dependencies needed while developing a specific type of Application.

For example, if we want to create a web based application we need to add “spring-boot-starter-web” dependency.

Few other starter dependency are:

- spring-boot-starter-data-jpa
- spring-boot-starter-data-test
- spring-boot-starter-data-jdbc
- spring-boot-starter-actuator

Spring Boot Auto configuration

@EnableAutoConfiguration

- Spring boot automatically configures the application based on the dependencies added in the application by using the `@EnableAutoConfiguration`

@SpringBootApplication

- The starting point of the spring boot application is the class annotated with `@SpringBootApplication` and the class with the main method

@ComponentScan

- This annotation is used to scan all the components included in the project

Spring Initializr

- Spring Initializr is a web based tool used for generating Spring Boot project structure.
- Few configuration details that can be provided in spring Initializr are:
 - Build tool(maven or Gradle)
 - Spring boot version
 - Language(Java) and its version
 - Project name, package name etc.,
- Spring Initializr is hosted at the URL <https://start.spring.io>