SPRING TRAINING

16.09.2023

Gülümser Aslan & Mustafa Yumurtacı

trendyol learning

PURPOSE

Understanding the Spring concept

WHY

Makes programming in Java

- ❑ quicker
- ❑ easier
- ❑ safer

AGENDA

1. Introducing The Spring Framework
2. Core Concepts: DI & IoC
3. Java Based Configuration
4. Annotation Based Configuration
5. Introducing Aspect Oriented Programming

Overview


dependency injection
inversion of control
service
advice
bean
aspect
configuration
annotation
pointcut
component
spring boot
dependency

1. Introduction to Spring Framework

1. What Is Framework?
2. What Is Spring Framework?
3. History of Spring
4. Spring vs Spring Boot
5. Why Spring Is Successful?

What Is Framework?

Framework

- provides tools and rules.
- helps developers to create applications *more* easily and efficiently.
- saves time and effort by offering pre-built structures and functions

1. Introduction to Spring Framework

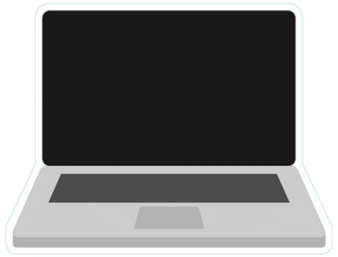
1. What Is Framework?
2. What Is Spring Framework?
3. History of Spring
4. Spring vs Spring Boot
5. Why Spring Is Successful?

What Is Spring Framework?

Spring Framework

- is an application framework part of Java ecosystem.
- focus on *speed*, *simplicity*, *productivity*.
- is the most popular Java framework.
- builds java enterprise applications.
  - open source
  - lightweight
  - dependency injection container

Spring Framework Is Open Source



Code is available at:
https://github.com/spring-projects/spring-framework

Documentation available at:
https://docs.spring.io/spring-framework/reference/

Spring Framework Is Lightweight

Spring applications do not require a Java EE application server

- ❏ You can run your application as a standalone application

Spring is not invasive

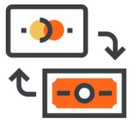
- ❏ Does not require you to extend or implement framework classes

Spring jars are relatively small

Spring Framework Provides a DI Container

Spring serves as a Dependency Injection(DI) container

- ❏ Your objects do not have to worry about finding / connecting to each other



Spring inject dependencies into your objects

Spring serves as a lifecycle manager

Spring Framework: More Than a DI Container

Spring integrates with a wide variety of technologies / platforms:

- ❏ Cloud, Micro-services
- ❏ JDBC, Transactions, JPA, NoSQL
- ❏ Events, Streaming, Reactive, Messaging, RabbitMQ, Kafka
- ❏ Security, OAuth2
- ❏ Monitoring, Observability

Spring simplify working with lower-level technologies

Spring is extensible and customizable

1. Introduction to Spring Framework

1. What Is Framework?
2. What Is Spring Framework?
3. History of Spring
4. Spring vs Spring Boot
5. Why Spring Is Successful?

History of Spring

2003 **Rod Johnson published a book**

Spring 1.0 is released 2004

2006 **Spring 2.0:**
- Simplified Xml configuration
- Java 5 support

Spring 2.5:
- Annotation configuration

2007

2009 **Spring 3.0:**
- Support expression language
- Java based configuration

Spring 4.0:
- SPEL support
- Java 8 support

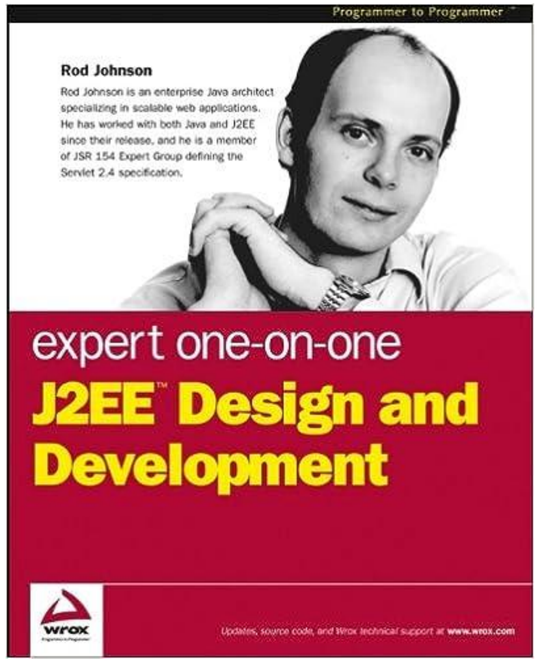
2013

2014 **Spring Boot 1.0 is released**

Spring 5.0:
- Reactive programming
- Java 9 support

2017

2022 **Spring 6.0:**
- Java 17 support



trendyol learning

1. Introduction to Spring Framework

1. What Is Framework?
2. What Is Spring Framework?
3. History of Spring
4. Spring vs Spring Boot
5. Why Spring Is Successful?

Spring vs Spring Boot

SPRING	SPRING BOOT
An open-source lightweight framework.	Built on top of the conventional Spring Framework
Used to develop enterprise applications	Used to develop REST APIs.
The most important feature of the Spring Framework is **dependency injection**.	The most important feature of the Spring Boot is **Autoconfiguration**.
Developers should write configuration codes.	In Spring Boot everything is auto-configured.

💫 You can create a SpringBootApplication from here: https://start.spring.io/

1. Introduction to Spring Framework

1. What Is Framework?
2. What Is Spring Framework?
3. History of Spring
4. Spring vs Spring Boot
5. Why Spring Is Successful?

Why is Spring Successful?

Spring embrace change and continues to improve:

- ❏ new JDK Versions
- ❏ Reactive Programming
- ❏ Stream Processing
- ❏ Kotlin Support
- ❏ Kubernetes

Integration with other open source projects

- ❏ *Hibernate, Quartz*

Created for common enterprise domains:

- ❏ *Spring Security, Batch, Integration*

Spring Boot created for *simplify* DevEx

Spring deals with boilerplate codes.

- ❏ You can focus on solving business domain

Spring deals with →

trendyol learning

Homework

1. Please visit --> https://spring.io/
2. Look at Spring Overview --> https://docs.spring.io/spring/docs/current/spring-framework-reference/overview.html#overview
3. Read Why Spring? --> https://spring.io/why-spring
4. Look at the last released versions and features -->

https://github.com/spring-projects/spring-framework/releases