My Spring Boot Diary (Day 1) SPRING 5

Spring Boot and Java EE implementation is similar.

BIG UPDATE:

SPRING 5 released in 2017 and minimum requirements is Java 8 or higher,
Spring MVC use new version of Servlet API 4.0, and a new reactive programming framework: Spring Web Flux.
CORE components stay the same: Inversion control , Dependency Injection , Spring AOP , Spring MVC.

Goals of Spring:

1. Lightweight development with Java POJOs (plain old java objects)
   a. Makes much simpler to build.
2. Dependency injection to promote loose coupling
   b. Simply specify ANNOTATIONS INSTEAD OF HARDWIRING OBJECTS TOGETHER.
3. Declarative programing with aspect oriented AOP
   c. Add application services to objects
4. Minimize java code
   d. Spring creates helper classes to minimize code.

SPRING CORE OVERVIEW

This is the factory for creating beans / manage bean dependencies recon fig files and set properties and the container that holds the beans in memory and the "SpEL" spring expression language. This exists to create beans and make the beans available.

CORE CONTAINER
Beans
CORE
SpEL
Context

(AOP) Aspect Oriented Programing this are services and support for creating application wide services EJ: Logging, security, transactions and apply this services to objects in a declarative fashion no need to modify code to have support just add a "config" in the config file or annotation and the service will be applied to the application.

INFRASTRUCTURE
AOP
Aspects
Security
Messaging

INTEGRATION: JDBC (connector) spring provides helper class to make it more accessible and reduce code. Object relational mapping (ORM) ALLOWS TO hook into hibernate and jpa, (JMS) java message service allows to sent messages to a message Que', **Transaction manager,** to support transactions on methods and Database calls.

Data Access Layer
JDBC
ORM
Transactions
JMS

Spring MVC: You can build web application using spring core and making use of spring controllers and spring view. The other modules interface with other web technologies, like struts. If using Spring MVC no need to use other API but it can be done.
It has support for web remoting where you can have external clients make calls into the spring container. (POSTMAN for example)

Web Layer
Servlet
WebSocket
Web
Portlet

TDD: Spring has support for test driven development. Mock objects and out of container testing is possible**.**

Test Layer
Unit
Integration
Mock