Basic Spring 4.0

Lesson 1: Introduction to Spring Platform and environment

Lesson Objectives

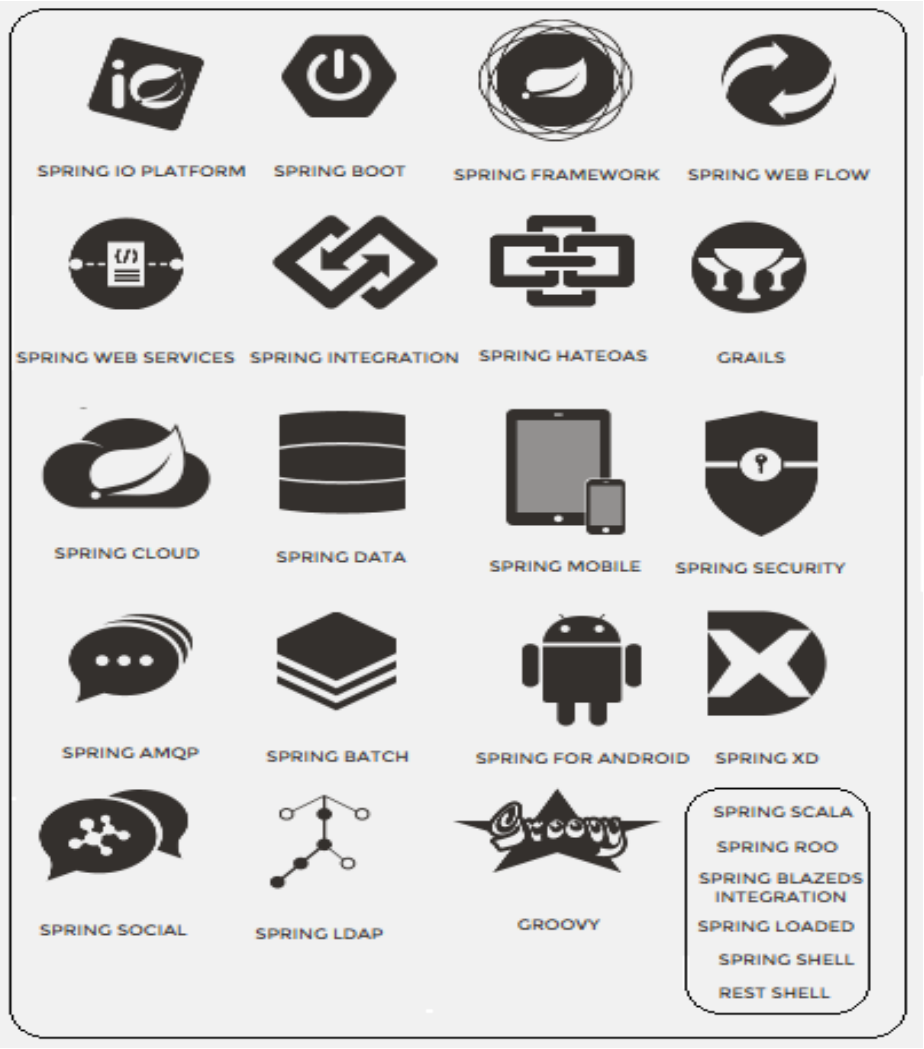
- In this lesson , you will learn about
  - Introduction to Spring
  - Spring Projects at a glance
  - Spring IO Platform
    - Spring Framework
    - Spring Boot

Introduction to Spring

- Spring is a Java platform that provides comprehensive infrastructure support for developing Java applications with development tools.
- Any application can benefit from Spring in terms of
  - Simplicity
    - Testability
    - Loose Coupling
  - Automation of deployment
    - Convention over configuration
    - Services to enable a cohesive technology experience not only for the developers, but also for the businesses

Spring projects at a glance

- Spring is modular by design
- Spring has many projects which helps us to build modern applications with any infrastructure needs such as
  - Simple Configuration
  - High Security
  - Connectivity to Big Data
  - Development of Web apps
  - Connectivity to cloud services
  - Integration with any framework.



Spring IO Platform

- Brings together the core Spring APIs into a cohesive platform for modern applications.
- Spring IO Platform has 3 layers:
  - Spring IO Foundation layer
    - A cohesive set of APIs and embeddable runtime components that enable to build applications
  - Spring IO Coordination layer
    - Provides API's to connect to cloud services
  - Spring IO Execution layer
    - Provides DSR(Domain-Specific Runtime) for applications built using IO Foundation modules.
    - Helps to avoid deployment to an external container like Tomcat

Spring IO Platform

Spring Framework

- Spring Framework is an open source framework
- Addresses the complexity of enterprise application development
- Spring Framework provides programming & configuration model with Lightweight solution to build enterprise-ready applications
- Any java application can benefit from Spring framework in terms of simplicity, testability and loose coupling

Spring Boot

- Spring Boot ships with command line tool for executing spring applications
- Spring Boot dynamically wires up beans and settings and applies them to your application context.
- Advantages of using Spring Boot are:
  - No requirement for XML configuration
  - Annotation based configuration
  - Has embedded server
  - Reduces boiler plate code
  - Simplifies testing
  - Simplifies application maintenance
  - Reduces the size of build file

Lesson Summary

- In this lesson, you have learnt about
  - What is Spring and why spring?
  - List of spring projects
  - Spring IO platform
  - Overview of Spring Framework and Spring Boot

Review Questions

- Question 1: Spring IO _____ layer provides API to connect to cloud services
  - Option 1: Foundation
  - Option 2: Coordination
  - Option 3: Execution

- Question 2: Spring Boot reduces the effort needed to create production-ready, DevOps-friendly, XML-free Spring applications.
  - Option 1: True
  - Option 2: false