



Spring Framework 5

Beginner to Guru

External Properties



External Properties

- Why use external properties?
 - Hard coding values which can change is considered a bad practice
 - Makes your application rigid and hard to change
 - You want your application to be portable
 - Deployment artifact (jar / war) should be deployable to different environments
- What can change?
 - usernames, passwords, urls, API keys, paths, queue names, etc



Setting External Properties

- How do you set external properties?
 - Command Line Arguments
 - SPRING_APPLICATION_JSON - JSON object via command line or environment variable
 - JNDI
 - OS Environment variables
 - Property files (property file or YAML variants)



Property Hierarchy

- Review Section 24 - Externalized Configuration of Spring Boot for specifics
- Properties can be overridden depending on how they are defined
 - Gives you a lot of flexibility for deployments
- Lowest are properties defined in JAR or war properties or YAML files
- Next are external property files to JAR via file system
- Higher are profile specific properties files (in jar, then external)
- OS Environment variables



Property Hierarchy

- Java system properties
- JNDI
- SPRING_APPLICATION_JSON
- Command Line Arguments
- Test Properties (for testing)



Which to Use?





John's Pragmatic Guide

- Favor using application.properties or application.yml in packaged JAR (or WAR)
- Use profile specific properties or YAML files for profile specific properties
- For deployments, override properties that change with environment variables
 - Typically 70-80% of values do not change, only override what is needed
 - Environment variables offer a secure way of setting sensitive values such as passwords



Spring Cloud Config

- Spring Cloud Config allows Spring applications to obtain configuration from a configuration server
- Application starts up and obtains configuration values from a configuration server
- Bootstrap process runs before normal Spring startup
- Spring Cloud Config is out of scope of this course
 - Covered in depth in my Spring Boot Microservices course

