

# Business components development with Spring and Hibernate (code: SPRING-HIBERNATE)

## Overview

The training covers building business logic with the ubiquitous Spring/Hibernate combo (the latter is accessed using the recommended JPA 2 interface). In addition, some complementary technologies (such as Beans Validation Framework) are presented.

The training demonstrates both technical aspects of using the Spring platform, as well as good practices and design patterns used in enterprise applications.

**Important:** The focus of the training is solely the business logic layer. Participants who wish to learn building complete applications should rather choose one of our full stack trainings, such as Java Enterprise Web Development with Spring 3 and JavaServer Faces 2 .

## Duration

2 days

## Agenda

1. Domain model and the database layer - *Java Persistence Architecture 2*:
  - basic mappings and relations, life cycle of an entity;
  - complex mappings: inheritance, composition, uni- and bidirectional relations;
  - surrogate and natural primary keys, multicolumn keys, implied values;
  - JPQL queries;
  - typed queries: *Criteria API*;
  - collections of simple and embeddable types, ordering collections;
  - validation using *Bean Validation*:
    - built-in validators,
    - custom validators.
2. Introduction to Spring 3
  - Installation and configuration of Spring and the associated pitfalls;
  - Spring dependencies;
  - Supported types of dependency injection: setter, constructor, getter;
  - Configuration using XML files and tagged factories;
  - Design patterns often used in Spring applications (Facade, DAO, Application Service, Business Delegate);
  - Aspect oriented programming;
  - Transactions;
  - Creating Spring database applications using SQL;
  - Creating Spring database applications using Hibernate / JPA;
  - Weavers in an SE and EE.
3. The basic Spring integration with servlet (web) environment
  - Spring and JavaServer Faces;
  - Spring and EJB.

## Target audience and prerequisites

There are no prerequisites for this course.

### Ask for details

Phone +44 203 608 6289

info@alx.training

## Certificates

Course participants receive completion certificates signed by ALX.

## Locations

- Online (English) – your home, office or wherever you want
- Warsaw (English) – Jasna 14/16A
- any other location (London, UK, EU) on request

## Price

740 EUR

The price includes:

- course materials,
- snacks, coffee, tea and soft drinks,
- course completion certificate,
- one-time consultation with the instructor after course completion.

## Ask for details

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