

# Implementing JEE architecture with Hibernate, JPA, JSF and Spring

## Description

This course will introduce core frameworks such as Hibernate, which manages object persistence in relational database, Java Server Faces (JSF), which assists in developing Web application interfaces, or Spring, which facilitates the development and testing of 3-tier applications.

## Course Content

### Module 01: Spring

- Spring Architecture
- Spring Bean Lifecycle
- Dependency Injection
  - XML-based Bean Wiring
  - Annotation-based Bean Wiring
  - Autodetect Bean Wiring
  - JavaConfig – Programmatic Wiring
- Aspect-Oriented Programming in Spring
  - @AspectJ Configuration
  - Pure-POJO (XML) Configuration
- Spring Data Access
  - JDBC
  - ORM
- Spring Web Applications
- Spring Security
- Spring Testing Framework
  - Unit Testing
  - Integration Testing

### Module 02: JPA/Hibernate

- Object Persistence
- Hibernate Architecture
- JPA Architecture
- Persistent Entity Lifecycle
- Transaction Management
- The Java Persistence API
- Hibernate as a JPA Provider
- JPA EntityManager API
- JPA ORM Annotations
- JPA Query Language

### Module 03 : JSF 2.0

- Introduction to JSF
- JSF Lifecycle
- Views and JSF Tags
- Managed Beans

- Page Navigation
- Converters and Validators
- Event Handling
- JSF and AJAX
- Facelets
  - Composite Components
  - Templating
- Spring Integration in Detail

## Documentation

- Digital courseware included

## Participant profiles

- Developers
- J2EE Developers
- Java Developers
- Java EE Developers
- Trainers in the field

## Prerequisites

- Participants should have followed or have knowledge covered by: [JAVA SE 17 Programming I](#)

## Objectives

- Develop an enterprise application from beginning to end with Java EE Frameworks
- Develop the data access layer with Hibernate
- Implement the presentation with the JSF framework
- Understand the basics of injecting dependencies with Spring
- Understand good practices of Spring framework

## Niveau

Fondamental

## Classroom Registration Price (CHF)

3100

## Virtual Classroom Registration Price (CHF)

2900

## Duration (in Days)

4

## Reference

SHJSF