# Developping with Java/JEE frameworks

*Hands-on course of 5 days - 35h*
*Ref.: DFJ - Price 2024: €2 970 (excl. taxes)*

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## THE PROGRAMME

last updated: 01/2018

### 1) Introduction
- Presentation and comparison of 2-tier, 3-tier, and n-tier architectures.
- Overview of the JEE ecosystem, leading frameworks, their role in the development of Java applications.

### 2) Industrially employed frameworks
- Organizing Java development.
- Ant, a task-automation framework.
- Maven, to simplify the production and management of builds.
- JUnit, a framework for creating and running unit tests.
*Hands-on work : Setting up the development environment in Eclipse.*

### 3) The Hibernate framework
- Overview of persistence.
- The Hibernate project.
- Creating an object/relational map. Context, persistent classes.
- Working with persistent data. Object lifecycle. Database syncing.
- Common errors to avoid.
*Hands-on work : Creating a map Writing HQL queries*

### 4) The Spring framework
- Overview of the role of the light container.
- Overview of interface programming.
- Combining Spring/Hibernate.
- Third-party framework support.
- Demonstration of AOP (Aspect-Oriented Programming).
*Hands-on work : Creating the context, combining with Hibernate.*

### 5) The Struts framework
- Introduction to the MVC model.
- Components of Struts.
- Implementing a Web navigation process.
- JSP tag libraries.
- Application deployment.
*Hands-on work : Creating an HMI to benefit from developments completed with Hibernate and Spring.*

# DATES

REMOTE CLASS
2025 : 17 Mar, 16 Jun, 15 Sep, 24
Nov