

# DEVELOPING ENTERPRISE JAVA APPLICATIONS WITH SPRING & HIBERNATE

Course number : 102

## Overview

Increase productivity, accelerate development, and quickly build enterprise Java applications with the Spring and Hibernate frameworks. In this training course, you learn how to simplify development and reduce code complexity with Spring, and use Hibernate — a framework for persisting Java objects in a relational database — to minimize time spent on the low-level implementation of database storage.

## What you'll learn

- Build scalable, high-performance applications while reducing development time
- Leverage Spring IOC to implement transaction-aware, flexible business objects
- Store and retrieve data objects with Hibernate
- Integrate Spring and Hibernate

## Who should attend

### Pre-requis

- Knowledge at the level of:
  - Course 103, Java Programming Introduction
- Three to six months of Java programming experience
- You should be able to:
  - Understand Java classes, the inheritance model, polymorphism, and encapsulation
  - Use fundamental standard edition Java APIs
  - Apply object-oriented analysis and design, including defining classes and creating objects

## Outline

### [Introducing the Spring Framework](#)

#### Spring architecture fundamentals

- Identifying Spring application components
- Defining the n-tier application architecture

### **Applying Inversion of Control (IoC) and Dependency Injection (DI)**

- Delegating object creation to the Spring bean factory
- Controlling bean creation with scopes and methods

## [Constructing an Effective Data Access Tier with Spring](#)

### **Simplifying data access with JDBC templates**

- Streamlining runaway code with JDBC templates
- Structuring queries and callbacks for maintainability

### **Abstracting the Data Access Layer**

- Supporting the Data Access Object (DAO) pattern
- Achieving implementation independence with platform agnostic exceptions

### **Managing transactions**

- Analyzing Java EE transaction support
- Controlling transactions with Spring transaction manager
- Declaring transaction policies with XML and annotations

## [Building a Web Tier with Spring MVC](#)

### **Processing web requests**

- Analyzing Spring MVC architecture
- Mapping requests to controllers with annotations
- Processing commands, form submissions and wizards

### **Rendering the response**

- Spring JSP support
- View technology alternatives with Velocity

### **Building Ajax controllers**

- Establishing the requirements for Ajax controllers
- Implementing REST-style URLs

## [Persisting Objects with Hibernate](#)

### **Integrating Hibernate**

- Simplifying data access with O/R mapping
- Unraveling the Hibernate architecture
- Deploying and configuring Hibernate

### **Generating Hibernate applications**

- Developing the persistent class
- Storing and retrieving Java objects

## [Handling Complex Object Relationships](#)

### **The role of the Hibernate Session**

- Establishing a thread-safe session object
- Defining object states: transient, persistent, detached

### **Mapping collections**

- Persisting and retrieving collections
- Preserving collection order for data integrity

### **Strategies for building object associations**

- Specifying one-to-many and many-to-many relationships
- Controlling the association life cycle

### **Effectively mapping inheritance relationships**

- Applying class rules for inheritance
- Techniques for class-database mapping

## [Optimizing Data Access](#)

### **Applying Hibernate Query Language (HQL)**

- Improving structure with named queries
- Augmenting HQL with native SQL
- Maximizing Hibernate performance

## Schedule

Location	Dates	Status
Cotonou	Jan 16, 2018 - Jan 21, 2018 08:00 AM - 05:00 PM	Available <a href="#">Register Now &gt;&gt;</a>
Cotonou	Nov 10, 2017 - Nov 17, 2017 08:00 AM - 05:00 PM	Available <a href="#">Register Now &gt;&gt;</a>

## Tuition

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## FAQ

## Certification



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## Business Analysis



## IT Service Management



## Data Center



## Cloud Computing



## Project Management



## Java Programming