

# Hibernate Performance Tuning Workshop

Persisting data with JPA and Hibernate as its most popular implementation is so easy that you can learn it within a few hours. But the troubles begin, as soon as the application needs to support a huge amount of data or you have to guarantee very short response times.

You can fulfill these requirements with advanced JPA features, and on top of that, Hibernate offers several proprietary features to support further optimizations. Some examples are selecting the right fetch strategy, using different caches and performing bulk operations.

During this workshop, I will use lots of examples to show you when and how to use these features to avoid performance issues and fulfill challenging performance requirements.

## Program

During this training, you will work with lots of examples to learn more about Hibernate's advanced features and concepts which enable you to:

- Understand typical reasons for performance problems and how you can find them before you deploy them to production.
- Creating efficient entity mappings
  - Choosing the best strategy to generate primary keys
  - Selecting the optimal fetching strategy, and
  - Using byte code enhancement.
- Optimize read operations by
  - Optimizing queries,
  - Implementing use case specific fetching strategies, and
  - Using different caches to avoid redundant database queries.
- Use database functions and stored procedures to preprocess your data.
- Improve the performance of your write operations by
  - executing write operations in batches and
  - using bulk operation to change or remove huge data sets.

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- Choose the most efficient strategy to manage concurrent operations.

## Goals:

After you participated in this training, you will be able to identify and fix performance problems before they cause problems in production. You will know different strategies and features to solve these problems so that you can implement an efficient, high-performance data access layer with JPA and Hibernate.

## Target Audience:

Software developers and architects who are already familiar with JPA and Hibernate concepts.

## Duration:

3 days

## Trainer:

Thorben Janssen is an independent consultant, trainer and the author of Amazon's bestselling book [Hibernate Tips - More than 70 solutions to common Hibernate problems](#). He has been working with Java and Java EE for more than 15 years and is a member of the CDI 2.0 expert group (JSR 365).

He writes about Java EE related topics on his blog [www.thoughts-on-java.org](http://www.thoughts-on-java.org).