

Ultimate Hibernate



Abstract

Hibernate has become one of the most successful open source projects that roam the Java planet. It is used as the persistence layer on many JSE and JEE (and .NET) projects, and proved itself as a successful tool for different requirements. Never the less, it can be a bit risky if one does not understand the implications of using it.

The ultimate hibernate course is aimed at diving into the bits and bytes of hibernating, dealing with advanced issues and looking under the hood of this great tool.

Target Audience

JavaSE/EE developers, team leaders and Architects

Prerequisites

Experience in Hibernate.

Content:

Intro (1 hour)

- Hibernate basic usage
- When Hibernate might be risky

Using annotations for mapping (3 hours)

- Standard JPA annotations
- Hibernate extensions
- Queries mapping
- Overriding metadata with XML
- Custom SQL for CRUD operations
- Tuplizers

Associations and collections mapping in depth (4 hours)

- Unidirectional vs. Bidirectional associations
- Choosing the right collection class
- Many to many mapping techniques
- Fetching strategies - lazy, eager and what's between
- Generating optimized SQLs



How Proxies work

Interceptors and events (2 hour)

- Using interceptors to manipulate entities
- Hibernate events architecture
- Using Native SQL to improve performance (2 hours)
- Native SQL for optimized performance
- Handling scalars and entities
- Query spaces
- Named queries

Advanced caching options (4 hours)

- The 2nd level cache
- Caching strategies
- Controlling cached objects
- The Query cache
- Distributed caches

Hibernate and Security (2 hours)

- Creating a JAAS login module with Hibernate
- Hibernate declarative security
- Row-level security

Performance Issues and Tuning (4 hours)

- Identifying SQL problems
- Collections performance
- In house performance monitoring

Integration with other tools (2 hours)

- Spring
- J2EE containers
- Apache Lucene
- jBPM

Duration: 3 days