

## JBoss Hibernate Technology (JB297)

In this course, you will acquire the knowledge and skills needed for leveraging the powerful Java Persistence API (JPA) relational data framework using the Hibernate application stack. Through interactive lectures and hands-on labs, you will leverage JPA with Hibernate, including both simple Java and advanced Java EE application architectures, to provide an integrated platform for next-generation, standards-based Java applications. By the end of the course, you will have learned the best practices to leverage Hibernate to produce and maintain well-designed, robust business applications while optimizing performance and reducing software maintenance costs.

### What You'll Learn

- Core application programming interfaces for Hibernate (Session, Transaction, Query, EntityManager, SessionFactory, Annotations)
- Hibernate search, validation, shards, and tools technologies
- Mapping inheritance and polymorphic relationships
- Hibernate HQL, criteria, and JDBC/SQL queries
- Hibernate tools integrated development environment (IDE)
- Best practices and patterns for Hibernate developers
- Hibernate deployment, configuration, and performance tuning

### Who Needs to Attend

- Enterprise systems architects
- Experienced Java developers who work with SQL-based database systems
- Business component and database developers
- Database administrators who need to understand how ORM may affect performance and how to tune the performance of the SQL database management system and persistence layer

### Prerequisites

- Experience with Java Platform, Enterprise Edition (Java EE) or Java 2 Platform, Enterprise Edition (J2EE)
- High-level understanding of enterprise software systems development
- Understanding of legacy systems integration

### Follow-On Courses

- [Red Hat® JBoss Enterprise Application Development II \(JB325\)](#)

### Course Outline

1. Understanding Java persistence
2. Getting started with Hibernate
3. Hibernate projects and tools
4. Advanced Hibernate mapping
5. Entity relations and inheritance
6. Persistent state and transactions in Hibernate
7. Querying data efficiently
8. Design and best practices review
9. Hibernate configuration and deployment
10. Hibernate advanced frameworks