DCInternet

CURSO JAVA PERSISTENCE WITH HIBERNATE

Descripción: Con Hibernate puedes crear objetos propios de tu diseño Orientado a Objetos y "mapearlos" a tablas en una Base de Datos para que sean persistentes. Este curso te enseña lo que necesitas saber para "mapear" objetos a datos relaciones así como a ejecutar consultas y actualizaciones de diversas maneras. Cubre todos los conceptos necesarios para acceder y actualizar datos almacenados en Bases de Datos relacionales. El curso incluye varios laboratorios para practicar lo aprendido.

Audiencia: Programadores de Java que necesitan acceder bases de datos relacionales.

Prerrequisitos: Conocimiento de programación en Java. Conocimientos de SQL, bases de datos relacionales y de JDBC (Java Database Connectivity).

Contenido

MAPPING A SIMPLE CLASS

- Persistent Entity Classes
- Persistent Classes
- The Event Class
- The id Property
- The Hibernate Mapping File
- The <hibernate-mapping> Element
- The <class> Element
- The EVENTS Table
- Mapping the id Property with <id>
- More About Primary Keys
- Generating the id Value
- Mapping Properties with <property>
- Hibernate Mapping Types
- Common Hibernate Type Mappings
- Filed Access or Property Access
- The Mapping File
- Hibernate Sessions
- The Session Interface
- Retrieving Persistent Objects

LOGGING

- Hibernate.show_sql
- Apache Log4J
- Hibernate log4j.properties File
- The log4j.properties File
- Modifying log4j.properties for Hibernate
- Hibernate Logging Categories

APPENDIX – LOG4J

- Apache Log4J
- log4j Logres
- Logger Hierarchy
- Logger Levels
- Appenders
- Aprender Additivity
- Layout
- log4j Configuration File
- Patternlayout
- Multiple Layouts
- Some log4j Appenders

INSERTING AND UPDATING

- Hibernate Query Language
- HQL Basics
- Executing a Query
- Other common Query Methods
- Where Clause/Restriction
- HQL Operators and Expressions
- Query Parameters
- Using Query Parameters
- Named Queries
- Projection Queries
- Projection Queries Returning Tuples
- Additional Query Capabilities
- Aggregate Functions

MORE ON QUERYING

- Projection Queries
- Aggregate Queries
- Bulk Update and Delete
- Executing Bulk Operations
- Native SQL Queries
- Refining SQL Queries
- Retrieving Entities with SQL Queries

FILTERS

- Hibernate Filters
- Defining and Attaching Filters
- Using a Filter
- Mapping a Filter to a Set
- Collection Filters

CRITERIA

- Restrictions – Narrowing the Result Set
- Restrictions Methods
- Navigating Associations
- Eager Fetching
- Query by Example
- Refining the Example
- Additional Capabilities

JPA OVERVIEW

- Java Persistence API Overview
- Java Persistence Environments
- Hibernate and JPA

MAPPING A SIMPLE CLASS

- Entity Classes
- Event Entity Mapped with JPA
- The Entity Declaration
- The Event Class
- The id Property
- Mapping Properties
- Basic Mapping Types

ENTITY MANAGER AND PERSISTENCE CONTEXT

- The Entity Manager & Persistent Context
- Persistence Unit
- persistence.xml
- Acquiring an EntityManager
- Working with Transactions
- Retrieving Persistent Objects

TRANSACTION DEFINITION

- Transaction Lifecycle
- Transactions Modularize Systems
- Transactions Clarify Systems

HIBERNATE AND TRANSACTIONS

- Hibernate and Transactions
- Hibernate Transaction Demarcation
- Working with Transactions
- The Hibernate Transaction API
- Working in a Managed Environment

THE PERSISTENCE LIFECYCLE

- Hibernate Object States
- Transient and Persistent State
- Detached and Removed State
- Hibernate Object States and Transitions
- The Persistence Context
- Session/Persistence Context Lifespan
- Session-per-Request
- Session Propagation
- First – Acquiring a SessionFactory Instance
- Contextual Session
- Using Contextual Sessions
- What is the “Current” Context
- Contextual Session Scope
- The Persistence context as Cache
- Synchronization to the Database
- Flushing the Session
- Persistence Context and Object Identity
- Yes, It’s Complicated

VERSIONING AND OPTIMISTIC LOCKING

- Detached Objects and Optimistic Locking
- Using a Detached Instance
- Optimistic Locking and Versioning
- Version Property in Java Class
- Version Element in Mapping File
- Automatic Version Maintenance
- Updating a Detached Instance
- session.saveorupdate()
- The unsaved-value Attribute
- Locking Objects
- Lock Modes

RELATIONSHIPS OVERVIEW

- Object Relationships
- Characteristics of Relationships
- Directionality
- Characteristics of Relationships

INSERTS AND QUERIES

- Persisting a New Entity
- Java Persistence Query Language
- Executing a Query
- WHERE Clause and Query Parameters
- Named Queries
- Version Property in Java Class
- Versioned Class and Detached Objects

RELATIONSHIPS

- JPA Support for Relationships
- Mapping the Many-To-One Relationship
- Mapping the One-To-Many Relationship
- Loading and Cascading
- Queries Across Relationships
- Inheritance
- Entity Definitions for Single-Table
- Entity Definitions for Joined

COMPONENTS AND MULTI-TABLE MAPPING

- Component Overview
- Mapping a Component
- Multi-Table Mapping

EQUALS() AND HASHCODE()

- Defining equals() and hashCode()
- Redefining equals()

CACHING

- Second-Level Cache
- Data Appropriate for Caching
- Cache Providers
- Configuring Caching
- Concurrency Strategies
- Managing the Caches

DESIGN CONSIDERATIONS

- Long Conversations
- Session-per-Conversation
- Problems with Web Applications
- Open Session in View Pattern
- Query Efficiency Techniques
- Beware of N+1 Select Issue
- Prefetching Data in Batches
- Data Acces Object (DAO)

COLLECTIONS OF VALUE OBJECTS

- Collections of Values
- Modeling a Set of Values
- Mapping the Set of Values
- Using a Set of Values
- More on the Java Collection Type
- Using the Java Collection Type
- Modeling a List of Values
- Mapping a List of Values
- Sorted and Ordered Collections
- Collections of Components
- Mapping Collections of Components

HIBERNATE TOOLSET

- Optional – Hibernate Tools
- Install Hibernate Tools
- Design Mode for Config Files
- Hibernate Console Configuration
- Hibernate Console Perspective
- Hibernate Configuration View
- Class Diagram
- HQL Editor
- Query Results
- Properties View
- SQL Preview
- Other Capabilities
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Duración: 30-32 horas

Incluye:

- ❖ Una mochila de la empresa
- ❖ Un manual de Hibernate
- ❖ Un lápiz

Formas y condiciones de pago:

Para la inscripción, aplicación de los descuentos y aseguramiento de que el curso se impartirá en las fechas pactadas se requiere el pago anticipado antes con depósito o transferencia bancaria a la siguiente cuenta:

- ❖ Depósito en Banamex cuenta 4923239 Suc. 575 a nombre de Desarrollo y Capacitación en Internet, S. A. de C. V. (CLABE en caso de transferencia electrónica vía Internet 002180057549232394)
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