

Szkolenie: Oracle
Java EE 6: Develop Database Applications with JPA

FORMA SZKOLENIA	MATERIAŁY SZKOLENIOWE	CENA	CZAS TRWANIA
Stacjonarne	Cyfrowe	5960 PLN NETTO*	4 dni
Stacjonarne	Tablet CTAB	6560 PLN NETTO*	4 dni
Metoda dlearning	Cyfrowe	5960 PLN NETTO*	4 dni
Metoda dlearning	Tablet CTAB	5960 PLN NETTO*	4 dni

* (+VAT zgodnie z obowiązującą stawką w dniu wystawienia faktury)

LOKALIZACJE

Kraków - ul. Tatarska 5, II piętro, godz. 9:00 - 16:00

Warszawa - ul. Bielska 17, godz. 9:00 - 16:00

Cel szkolenia:

This **Java EE 6: Develop Database Applications with JPA NEW** training explores using the Java Persistence API within the context of a web-based Java Enterprise Edition application, as well as within a stand-alone Java Standard Edition application. This includes using Java Persistence API with the Enterprise JavaBeans technology.

Learn To:

- Update multiple database tables based on relationships.
- Perform CRUD operations with JPA in Java SE and EE environments.
- Perform data validation using Bean Validation.
- Optimize JPA for performance.
- Apply transactions and locking.
- Map relational database tables to Java using ORM techniques and JPA.
- Understand key concepts found in the Java Persistence API.
- Create robust entity models.
- Create static and dynamic queries using Java Persistence API Query Language.
- Create type-safe queries with the Java Persistence API Criteria API.

Plan szkolenia:

- Course Introduction

- Describing the target audience for this course
- Explaining the course itinerary
- Describing the format that the class will use
- Introducing the course environment
- Describing the need for Object-Relational Mapping
- Introduction to Java Persistence API
 - Describing the Java Persistence API
 - Creating entity classes
 - Using persistent field and properties
 - Using a generated primary key (table, sequence and identity)
 - Obtaining an Entity Manager
 - Creating a Persistence Unit
 - Using an entity manager to create, find, update, and delete entities
 - Creating typed queries in JPA
- Working with JPA in a Java Enterprise Environment
 - Evaluating the role of the container with JPA
 - Accessing JPA entities from a servlet
 - Evaluating the application of JSF as a user interface framework
 - Accessing JPA entities from Enterprise JavaBeans
 - Determining the impact of using stateless, stateful, and singleton session beans on entities
 - Configuring a persistence context in an EE context
- Introduction to the Auction Application Case Study
 - Describing the auction application
 - Defining the domain objects of the auction application
 - Describing the implementation model for the auction system
- Modeling Relational Databases with JPA Entities
 - Examining relationships in the data and object models
 - Using relationship properties to define associations
 - Implementing one-to-one unidirectional and bidirectional associations
 - Implementing many-to-one/one-to-many bidirectional associations
 - Implementing many-to-many unidirectional and bidirectional associations
 - Using OrderBy and OrderColumn annotations to define sort order
 - Applying the OrphanRemoval annotation to prevent orphaned entities
- Working with the Entity Manager
 - Describing the relationship between an entity and an entity manager, and between a persistence context and a persistence unit

- Differentiating between transaction-scoped and extended entity managers
- Describing the entity life cycle
- Using entity manager operations to perform CRUD operations: persist, find, merge, remove
- Examining the role of the entity manager with detached entities
- Defining and use cascading operations
- Persisting Enums and Collections
 - Persisting entities that contain enums
 - Persisting entities that contain collections
 - Persisting entities that contain Maps
- Creating Queries with the Java Persistence Query Language (JPQL)
 - Describing the Java Persistence Query Language (JPQL)
 - Contrasting JPQL with native queries
 - Using conditionals to filter results
 - Refining queries to return only needed data
 - Performing joins between entities
 - Creating dynamic queries with parameters
 - Using named queries
 - Performing bulk updates and deletes
- Using the Criteria API
 - Contrasting the Criteria API with JPQL
 - Using the Criteria API structure and core interfaces
 - Creating SELECT, FROM, and WHERE clauses
 - Creating paths and expressions
 - Using ORDER BY, GROUP BY, and HAVING clauses
 - Using the canonical metamodel
- Implementing Bean Validation with JPA
 - Describing the JPA lifecycle phases where validation takes place
 - Creating an entity listener class
 - Utilizing validation groups
 - Using built-in validation constraint annotations provided by Bean Validation
 - Creating a custom Bean Validation constraint
- Applying Locking and Transactions
 - Describing transaction semantics
 - Comparing programmatic and declarative transaction scoping
 - Using JTA to scope transactions programmatically

- Implementing a container-managed transaction policy
- Supporting optimistic locking with the versioning of entity components
- Supporting pessimistic locking by using EntityManager APIs
- Describing the effect of exceptions on transaction state
- Advanced Modeling: Entity Inheritance Relationships
 - Evaluating object-relational mapping strategies for entity inheritance
 - Applying single-table-per-class, joined-subclass, and table-per-class inheritance mapping strategies
 - Using embeddable classes
 - Overriding mappings with the @AttributeOverride and @AssociationOverride annotations
 - Specifying composite primary keys
- Optimizing JPA Performance
 - Using lazy fetching to prevent the loading of entities that are not being used
 - Using pagination to control the amount data that is needed at any one time
 - Modifying queries to prevent the N + 1 problem
 - Creating read-only queries
 - Describing performance issues associated with IDENTITY ID generation
 - Creating and using stored procedures with JPA and EclipseLink
 - Using cache optimizations with JPA and EclipseLink

Wymagania:

Recommended Related Training Courses:

- Developing Applications for the Java EE 6 Platform
- Java EE 6: Develop Business Components with JMS & EJBs

Poziom trudności



Certyfikaty:

Uczestnicy szkoleń otrzymają zaświadczenia o ukończeniu kursu sygnowane przez firmę Oracle.

Prowadzący:

Autoryzowany wykładowca Oracle.

