Using Java - for PL/SQL and Database Developers

Duration: 2 Days

What you will learn
This Using Java - for PL/SQL and Database Developers training will teach you about Oracle Database programming. Expert instructors use Java with examples and explanations of appropriate use.

Learn To:

- Develop database Applications using Java.
- Create, load, resolve and publish Java classes in the database.
- Develop and Run Java directly in the database.
- Access and Manipulate SQL and PL/SQL Data types using JDBC and SQLJ.
- Utilize UCP for JDBC design-time and run-time requirements.
- Convert Java in the database into Stored Procedure.
- Explain the benefits of Oracle JVM (OJVM).
- List the advantage of using Stored Procedures as Database Programming Model.

Benefits to You

Ensure fast, reliable, secure and easy to manage performance. Optimize database workloads, lower IT costs and deliver a higher quality of service by enabling consolidation onto database clouds.

Access & Manipulate SQL Data

Upon enrolling in this course, you'll also learn to access Oracle Database using JDBC, UCP, Java stored procedures and SQLJ technologies. Instructors will highlight the benefits of accessing and manipulating SQL data using JDBC and SQLJ technologies. The advantage of Oracle JVM is also discussed to ensure understanding.

Audience
Developer

Related Training

Required Prerequisites
Knowledge of Oracle Database

Suggested Prerequisites
Oracle Database: Program with PL/SQL Ed 1 (KR)
Course Objectives

Map SQL and PL/SQL Types to and from Java Types

Invoke Java in the Database

Manage Java in the Database

Use key metadata in JDBC

Manipulate Oracle SQL data types in JDBC

Use Result Sets and RowSet

Understand JDBC Quality of Services and Best Practices

Access and Manipulate Oracle SQL data using SQLJ

Develop and Run Java directly in the database

Access and Manipulate SQL and PL/SQL Data types using JDBC and SQLJ

Course Topics

Introduction
Describe the course objectives
Describe the course prerequisites and suggested prerequisites
Describe lesson contents and agenda
List the schemas and appendices used in this course
Identify the relevant documentation and other resources
Describe the Course Technical Environment and data

Introduction to Java
Java and OOP Technology
Key features of Java

**Introduction to JDBC**
- JDBC Architecture
- JDBC Drivers: Overview
- JDBC Specification
- Essential of JDBC Programming

**Accessing and Manipulating SQL Data using JDBC**
- Key Metadata in JDBC
- Manipulating Oracle Data Types with JDBC
- Accessing and Manipulating LOBs using JDBC
- Result Set support in JDBC
- Rowset

**JDBC Quality of Services and Best Practices**
- Introduction to Transaction Services
- Introduction to Security Services
- Best Practices and tips

**Introduction to SQLJ Technology**
- Overview of SQLJ
- SQLJ Database Access

**Universal Connection Pool**
- Introduction to Universal Connection Pool (UCP)
- Universal Connection Pool for JDBC Overview
- UCP for JDBC design-time and run-time requirements
- Basic Connection Steps
- Packages of the UCP for JDBC API
- Database Connections

**Stored Procedures as Database Programming Model**
- Overview of Stored Procedures
- Introduction to Java Stored Procedures
- Advantages of Java Stored Procedures

**Oracle JVM**
- Define Oracle JVM and its architecture
- Using Java in Oracle Database
- Difference between Oracle JVM Architecture and JDK VM Architecture
- Automated Storage Management with Garbage Collection
- Dynamic Class Loading
- Performance Enhancement of Oracle JVM

**Developing and Running Java in the Database**
- Creating or Loading Java in the Database
- Removing Java Sources, Classes and Resources from the Database
- Setting/Querying Environment Variable and System Properties
- Java Compiler within the Database
- Converting Java in the Database into Stored Procedure
- Invoking Java in the Database
Error and Exception Handling
Managing Java in the Database