

Oracle PL-SQL Programming

Audience Oracle PL-SQL Programming Course

The course Oracle PL-SQL Programming is designed for developers who want to use PL-SQL in applications that access an Oracle database.

Prerequisites Course Oracle PL-SQL Programming

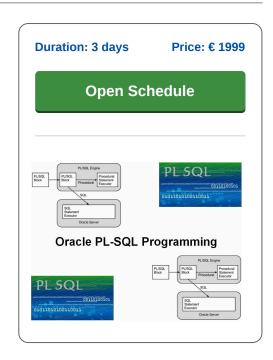
In order to participate in the course Oracle PL-SQL Programming knowledge of and experience with the SQL query language is required for this course. Experience with programming in a procedural programming language is beneficial to the understanding.

Realization Training Oracle PL-SQL Programming

The theory is treated on the basis of presentation slides. Demos are used to explain the theory. There is ample opportunity to practice and theory and exercises are alternated.

Certificate Oracle PL-SQL Programming

Attendants receive a certificate of participation in Oracle PL-SQL Programming after successful completion of the course.



Content Course Oracle PL-SQL Programming

In the course PL-SQL Programming participants learn to program in PL-SQL, Oracle's procedural programming language. PL-SQL is similar to the query language SQL, but extends the possibilities of SQL and improves performance. This course focuses on the latest version of Oracle, but where necessary, features of older versions are specially indicated.

PL-SQL Intro

The course Oracle PL/SQL Programming starts with a discussion of the presence of PL-SQL in the various Oracle tools. The advantages of using PL-SQL are explained.

PL-SQL Syntax

Attention is then paid to the syntax of PL-SQL, the structure of PL-SQL programs and to statements, declarations and expressions.

Control Flow

Control flow in PL-SQL with if else and case statements and the various loop constructions are also covered.

Cursors

Then the course proceeds with explaining what cursors are and how they are used when accessing the database. Implicit cursors and cursor attributes are then treated.

Transactions

Attention is also paid to PL-SQL transactions. This involves executing or reversing an atomic set of SQL data manipulation statements in their entirety using commit or rollback.

Error Handling

Furthermore error and exception handling in PL-SQL are covered. Allowing exceptions and error parameters to occur are part of the course.

Procedures and Functions

Some more advanced topics such as the creation and calling of local and stored procedures are discussed as well.

Packages

The use of packages that group related PL-SQL types, variables and subprograms is also on the program of the course Oracle PL/SQL Programming.

Triggers

Finally attention is paid to triggers. Triggers are programs that are automatically fired when certain events occur.



Modules Course Oracle PL-SQL Programming

Module 1 : PL-SQL Intro	Module 2 : PL-SQL Syntax	Module 3 : Control Flow
What is PL-SQL	PL-SQL Structure	IF-THEN-ELSE statement
Strenght of PL/SQL	Statements	CASE statements
Basic Concepts	Declarations	GOTO
Procedural possibilities	Assignments	WHILE loops
Enhanced performance	%TYPE and %ROWTYPE	FOR loops with index
Oracle Suppport tools	Expressions	FOR loops with cursor
Oracle Specifics	Comments	Infinite loops
SQL Developer	NULL	Nested blocks
Module 4 : Cursors	Module 5 : Transactions	Module 6 : Error Handling
Implicit cursor	Transaction in PL-SQL	Exceptions
Query with SELECT INTO	Queries for Changes	RAISE
Query with cursor	Autonomous Transactions	EXCEPTION_INIT
OPEN-FETCH-CLOSE	Locking	SQLCODE
FOR loops with cursor	Read Consistency	SQLERRM
Cursor attributes	Self Defined Records	Parameters
Module 7 : Procedures and functions	Module 8 : Packages	Module 9 : Triggers
Local versus stored procedures	Benefits of Packages	DML-triggers
Parameters	Package specification	Statement triggers
DEFAULT values	Package body	Row triggers
Removing procedures	Calling a function in SQL	Trigger Limitations
Local and stored functions	RAISE_APPLICATION_ERROR	Data integrity
Functions in SQL	DESCRIBE	Cascading triggers
Dependencies	Removing Packages	System Event en DDL-triggers
Recompilation	NDS Packages	Triggers on user logon and logoff
Remote dependencies	Standard packages for SQL	Shutdown and startup triggers