

## **Queries with Oracle SQL**

#### **Audience Oracle SQL Fundamentals Course**

The course Oracle SQL Fundamentals is designed for developers, database administrators and other interested parties who wish to learn and use Oracle SQL.

#### **Prerequisites Course Oracle SQL Fundamentals**

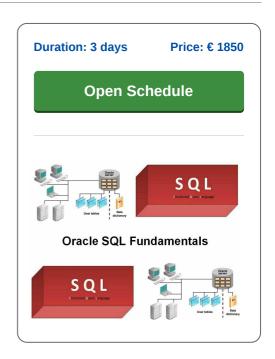
The course Oracle SQL Fundamentals has no specific requirements. General knowledge of system development and databases is beneficial to a good understanding.

#### **Realization Training Oracle SQL Fundamentals**

The theory is treated on the basis of presentation slides. Demos are used to explain the theory. There is ample opportunity to practice. The course works with newest Oracle version but is also suitable for older Oracle versions. The course times are from 9.30 to 16.30.

#### **Certification Oracle SQL Fundamentals**

Participants receive an official certificate Oracle SQL Fundamentals after successful completion of the course.



### **Content Course Queries with Oracle SQL**

In the course Queries with Oracle SQL participants learn the syntax and use of the query language SQL in the context of an Oracle database. SQL is an ANSI and ISO standard Query language that is applicable in all relational database management systems (DBMS). With SQL you can both retrieve and modify data in an Oracle database.

#### **SQL Intro**

After an introduction to relational databases and Oracle, the Oracle installation, environment and tooling, the basic aspects and backgrounds of SQL are discussed. Oracle, like other DBMS systems, has added extra features of its own to standard SQL and these are also discussed in the course.

#### **Data Definition and Data Manipulation**

In the first place the course covers how SQL statements can be created and executed in Oracle. Subsequently the various components of SQL are treated step by step, such as Data Definition Language with CREATE TABLE and Data Manipulation Language with INSERT and UPDATE.

#### **SQL Select Queries**

Next attention is paid to writing SELECT queries. The grouping of data by means of GROUP and HAVING clauses is also on the program of the course.

#### **SQL Functions**

The various functions in SQL are discussed. Among other things, the mathematical, conversion and aggregation functions for calculating sum and average are treated. Attention is also paid to features specific to Oracle.

#### **Joins**

Next the course covers how to combine data from different tables by means of joins. The various types of joins like inner and outer joins are discussed.

#### **SET Operators**

Finally attention is paid to the application of SET operators such as UNION and INTERSECT. The command line interface of SQL\*Plus is also treated.

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# **Modules Course Queries with Oracle SQL**

Module 1 : Oracle Introduction	Module 2 : SQL Introduction	Module 3 : Data Definition
Databases	SQL Foundations	CREATE TABLE
DBMS Systems	SQL Developer	Specifying Columns
Types of Database Models	Connection Navigator	ALTER TABLE
Entities and relationships	Creating and Using Connections	NULL and Default Values
Relational databases	SQL Worksheet	DROP COLUMN
Oracle tools	Statements and execution	DROP TABLE
Installing Oracle	SQL History	PURGE
Oracle versions	Storing statements	Virtual columns
Module 4 : Data Manipulatie	Module 5 : SQL Queries	Module 6 : Grouping
Data Manipulation Language	Selecting rows	GROUP BY clause
Transaction control	SELECT statement	Filtering groups
Inserting rows	FROM clause	HAVING clause
INSERT statement	Specifying conditions	Operators
Updating rows	WHERE clause	String and Date Operators
UPDATE statement	Sorting with ORDER BY	Concatenate operator
DELETE statement	NULLS, FIRST, LAST	Quote operator q
TRUNCATE TABLE	Removing Doubles	Operators for patterns
DML on virtual columns	BETWEEN, IN, ANY, ALL	Operators for intervals
Module 7 : Functions	Module 8 : Joins	Module 9 : SET Operators
Function of column values	Joining Multiple Tables	SET Operatoren
Using functions	Normal Joins	UNION
SELECT clause functions	Outer Join	UNION ALL
WHERE clause functions	More tables	INTERSECT
GROUP BY clause functions	ANSI joins	MINUS
HAVING clause functions	Inner join	Nesting of SET operators
ORDER BY clause functions	Natural join	Working with SQL*Plus
String and Arithmetic functions	ANSI outer join	Connect statement and /nolog
Date and Conversion functions	Cross join	SQL buffer
National Language Support	Multiple join conditions	Storing statements
NLS parameters	Subselections	Spool files
Cast	EXISTS	Transaction control