

Price: R5,900.00 excl. VAT
Duration: 3 days
Code: SQLDB

Advanced SQL for DB2

Description

The Advanced SQL for DB2 course covers more advanced aspects of the Structured Query Language (SQL), with specific reference to the IBM DB2 database. Contents include advanced table joins, advanced operators, expressions, operators, views, user defined functions, stored procedures (DB2 SQL PL) and database performance considerations.

Objectives

Delegates who complete the Advanced SQL for DB2 course will be able to:

- Create more sophisticated joins between tables.
- Create advanced queries using expressions and operators.
- Understand factors that affect database performance.
- Use type conversion functions to produce formatted text.

Intended Audience

The Advanced SQL for DB2 course is suitable for anyone who needs to use advanced SQL to update or query the IBM DB2 database, either on its own or from within another development environment.

Prerequisites

A basic understanding of relational databases and previous experience writing SQL statements is essential.

Course Contents

The lecturer reserves the right to modify the contents of the course to suit the needs of the delegates.

Database Overview • Review of database components. • Review of basic SQL statements.

Data Types • Date and time types. • Type conversions for dates, times and numbers.
• Producing specifically formatted text. • Effect of type conversions on performance.

Expressions • Understanding various operators. • Building functions. • Server-side (custom) functions. • Using literals, constants and pseudo-constants. • Using regular expressions in the LIKE clause. • Effect on performance.

Joining Tables • The INNER join. • The OUTER join. • FULL, LEFT and RIGHT in joins.
• Result and cost of the type of join.

Advanced Data Query Commands • The UNION operator. • The INTERSECT operator. • The EXCEPT operator. • Limiting the number of rows and columns returned by a query. • Creating sub-queries.

Views • Creating and using views. • Effect of views on performance.

Data Management Commands • The TRANSACTION command. • The COMMIT command.
• The ROLLBACK command. • The SAVEPOINT command.

Database Performance • Configuration aspects that influence the behaviour and performance of a database, from a programmer's perspective. • Creating indices. • Effect of indices on performance. • Understanding and interpreting the results of the EXPLAIN clause. • Effect of server-side objects, triggers and stored procedures on performance.