

SQ1010 - Cross Platform SQL – Dealing with Complex Queries

Course Synopsis	Duration:	Three (3) days
	Audience:	Programmers, Analysts, Database Administrators, and IT Managers who are exposed to, or are required to perform the activities associated with data stored in a relational database such as DB2, Oracle or SQL Server.
	Prerequisites:	SQ1000 or equivalent experience.
	Delivery Method:	Instructor Led, Hands-on Workshops

Brief Description	<p><i>Get ready to go deep with Structured Query Language (SQL) and become a power user. Whether you are being asked to solve complicated problems with SQL or you need to read and understand complex SQL that is already written, this course is for you! Come prepared to master Structured Query Language (SQL) across multiple database platforms in this fast paced and hands-on course. We begin with an in-depth discussion of joins and move quickly to more complex operations involving set processing, grouping, subqueries, table expressions, recursion and more. Each topic is reinforced with hands-on workshops.</i></p> <p><i>Examples and workshops are provided for the following platforms with discussion of the relevant differences:</i></p> <ul style="list-style-type: none"> • DB2 for z/OS • DB2 for Linux, Unix & Windows • Oracle 10g & 11g • Microsoft SQL Server
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Topics Covered	I. Complex Joins	
	<ul style="list-style-type: none"> • Inner Joins • LEFT and RIGHT Outer Joins • Full Outer Joins • “Anti” Joins • Self Joins 	
	II. Multiple Query Blocks	
	<ul style="list-style-type: none"> • Non-correlated Subqueries • Correlated Subqueries • Scalar Fullselects 	
	III. Table Expressions and Views	
	<ul style="list-style-type: none"> • Views • Nested Table Expressions • Common Table Expressions 	
	IV. Set Operations	
	<ul style="list-style-type: none"> • UNION • INTERSECT • EXCEPT / MINUS 	
	V. Advanced Grouping	
	<ul style="list-style-type: none"> • GROUP BY Clause • HAVING Clause • ROLLUP • CUBE 	
	VI. Solving Complex Problems with SQL	
	<ul style="list-style-type: none"> • Relational Difference • Quota Queries • Relational Division • Recursion • Complex CASE Statements • Table Pivoting 	

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Topics
Covered Continued

VII. Managing Transactions and Units of Work

- Data Modification Statements
- COMMIT, ROLLBACK and SAVEPOINT
- When to COMMIT?
- Checkpoint and Restart Considerations
- Constraint Violations

VIII. Temporary Data

- Global Temporary Tables
- Materialized Query Tables & Materialized Views