Writing Analytical Queries for Business Intelligence

Category: AI, Data & Analytics | **Vendor:** Various

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This three-day instructor-led course is about writing TSQL queries for the purpose of database reporting, analysis, and business intelligence. Specifically, this course presents TSQL within the context of data analysis in other words, making meaning from the data rather than transaction-oriented data-tier application development. The course starts with a brief discussion of levels of measurement and quantitative research methodogy, and integrates these concepts into each TSQL topic presented. The goal is to provide a consistent, direct, and purposeful learning path from RDBMS data retrieval through analytical tools such as SQL Server Reporting Services, PowerBI, Excel, R, SAS, and SPSS.

About This Course

This three-day instructor-led course is about writing TSQL queries for the purpose of database reporting, analysis, and business intelligence. Specifically, this course presents TSQL within the context of data analysis in other words, making meaning from the data rather than transaction-oriented data-tier application development. The course starts with a brief discussion of levels of measurement and quantitative research methodogy, and integrates these concepts into each TSQL topic presented. The goal is to provide a consistent, direct, and purposeful learning path from RDBMS data retrieval through analytical tools such as SQL Server Reporting Services, PowerBI, Excel, R, SAS, and SPSS.

Who Should Attend

This course is intended for information workers and data science professionals who seek to use database reporting and analysis tools such as Microsoft SQL Server Reporting Services, Excel, Power BI, R, SAS and other business intelligence tools, and wish to use TSQL queries to efficiently retrieve data sets from Microsoft SQL Server relational databases for use with these tools.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Identify independent and dependent variables and measurement levels in their own analytical work scenarios.
Identify variables of interest in relational database tables.
Choose a data aggregation level and data set design appropriate for the intended analysis and tool.
Use TSQL SELECT queries to produce ready-to-use data sets for analysis in tools such as PowerBI, SQL Server Reporting Services, Excel, R, SAS, SPSS, and others.
Create stored procedures, views, and functions to modularize data retrieval code.

Detailed Course Outline

Module 1: Introduction to TSQL for Business Intelligence

- Two Approaches to SQL Programming
- TSQL Data Retrieval in an Analytics / Business Intelligence Environment
- The Database Engine
- SQL Server Management Studio and the CarDeal Sample Database
- Identifying Variables in Tables
- SQL is a Declarative Language
- Introduction to the SELECT Query

Module 2: Turning Table Columns into Variables for Analysis: SELECT List Expressions, WHERE, and ORDER BY

- Turning Columns into Variables for Analysis
- Column Expressions, Data Types, and Built-in Functions
- Column aliases
- Data type conversions
- Built-in Scalar Functions
- Table Aliases
- The WHERE clause
- ORDER BY

Module 3: Combining Columns from Multiple Tables into a Single Dataset: The JOIN Operators

- Primary Keys, Foreign Keys, and Joins
- Understanding Joins, Part 1: CROSSJOIN and the Full Cartesian Product
- Understanding Joins, Part 2: The INNERJOIN
- Understanding Joins, Part 3: The OUTERJOINS
- Understanding Joins, Part 4: Joining more than two tables
- Understanding Joins, Part 5: Combining INNER and OUTERJOINs
- Combining JOIN Operations with WHERE and ORDER BY

Module 4: Creating an Appropriate Aggregation Level Using GROUP BY

- Identifying required aggregation level and granularity
- Aggregate Functions
- GROUP BY
- HAVING
- Order of operations in SELECT queries

Module 5: Subqueries, Derived Tables and Common Table Expressions

- Non-correlated and correlated subqueries
- Derived tables
- Common table expressions
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Module 6: Encapsulating Data Retrieval Logic

- Views
- Table-valued functions
- Stored procedures
- Creating objects for read-access users
- Creating database accounts for analytical client tools

Module 7: Getting Your Dataset to the Client

- Connecting to SQL Server and Submitting Queries from Client Tools
- Connecting and running SELECT queries from:
- Excel
- PowerBI
- RStudio
- Exporting datasets to files using
- Results pane from SSMS
- The bcp utility
- The Import/Export Wizard

Upcoming Schedule

Available training dates for Writing Analytical Queries for Business Intelligence:

Start Date	End Date	Location	Delivery	Price
06 Jan 2027	08 Jan 2027	Online	Virtual	€1,895.00

Additional Course Details

Nexus Humans Writing Analytical Queries for Business Intelligence training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Writing Analytical Queries for Business Intelligence course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Writing Analytical Queries for Business Intelligence?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 3-day Writing Analytical Queries for Business Intelligence course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Writing Analytical Queries for Business Intelligence training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Writing Analytical Queries for Business Intelligence?

Yes, we provide corporate training, dedicated training, and closed classes for Writing Analytical Queries for Business Intelligence. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for Writing Analytical Queries for Business Intelligence?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Writing Analytical Queries for Business Intelligence training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

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