
55232-A: Writing Analytical Queries for Business Intelligence

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 methodology, and integrates these concepts into each TSQL topic presented. The goal is to provide a consistent, direct, and purposeful learning path for RDBMS data retrieval for use in analytical tools such as SQL Server Reporting Services, PowerBI, R, and Excel.

Prerequisites

Before attending this course, students must have context knowledge of data analysis and business intelligence scenarios. For example, an understanding of a work-related business intelligence project or need. Students should have basic knowledge of the Windows operating system and its core functionality, including file system navigation. Basic understanding of the purpose of relational database management systems such as SQL Server is also required.

Audience

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.

Topics

- Introduction to TSQL for Business Intelligence
- Turning Table Columns into Variables for Analysis: SELECT List Expressions, WHERE, and ORDER BY
- Combining Columns from Multiple Tables into a Single Dataset: The JOIN Operators
- Creating an Appropriate Aggregation Level Using GROUP BY
- Subqueries, Derived Tables and Common Table Expressions



- Encapsulating Data Retrieval Logic
- Getting Your Dataset to the Client