55366 Querying Data with Transact-SQL

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

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This five-day instructor-led course is intended for IT professionals who wish to use the Transact-SQL language to query and configure Microsoft SQL Server. Students are typically database developers and database administrators, but might also be Business Intelligence developers, report creators, or application developers. In this course, students learn how to query single tables, join data from multiple tables, filter and sort data, modify data, use procedures and functions, and implement error handling.

About This Course

This five-day instructor-led course is intended for IT professionals who wish to use the Transact-SQL language to query and configure Microsoft SQL Server. Students are typically database developers and database administrators, but might also be Business Intelligence developers, report creators, or application developers. In this course, students learn how to query single tables, join data from multiple tables, filter and sort data, modify data, use procedures and functions, and implement error handling.

Who Should Attend

This course is intended for novice database developers, database administrators, Business Intelligence developers, report creators, and application developers who have an understanding of relational database concepts and have basic Windows navigation skills.

Prerequisites & Entry Requirements

General Prerequisites:

- Basic understanding of relational databases.
- Basic Windows knowledge.

Learning Outcomes

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

Create single table SELECT queries Create multiple table SELECT queries Filter and sort data Insert, update, and delete data Query data using built-in functions Create queries that aggregate data Create subqueries Create queries that use table expressions Use UNION, INTERSECT, and EXCEPT on multiple sets of data Implement window functions in queries Use PIVOT and GROUPING SETS in queries Use stored procedures in queries Add error handling to queries Use transactions in queries

Detailed Course Outline

Module 1: Introduction to Transact-SQL

- What is Transact-SQL
- The SELECT statement
- The WHERE clause
- Sorting results
- Calculations
- CASE expressions

Module 2: Joining tables with Transact-SQL

- The JOIN clause
- Inner joins
- Outer joins
- Self joins and cross joins

Module 3: Filtering and sorting results

- Implement the ORDER BY clause
- Filter data with the WHERE clause
- Limit the number of rows returned by a query
- Implement NULL logic

Module 4: SQL Server data types

- Understand data types
- Implement string data types
- Implement temporal data types

Module 5: Inserting, updating and deleting data

- Insert new records
- Update existing records
- Delete data

Module 6: Using SQL Server functions with Transact-SQL

- Understand function types in SQL Server
- Convert data using functions
- Implement logical functions
- Work with NULL data using functions

Module 7: Aggregating data with Transact-SQL

- Implement aggregation in SQL Server
- Group records in SQL Server
- Filter aggregated data

Module 8: Implement subqueries with Transact-SQL

- Implement scalar and multi-valued sub-queries
- Implement correlated subqueries
- Implement existence checks with subqueries

Module 9: Create queries that use table expressions

- Create views
- Create table-valued functions
- Implement derived tables
- Implement common table expressions

Module 10: Use UNION, INTERSECT, EXCEPT and APPLY on multiple sets of data

- Write queries with the UNION operator
- Write queries with the INTERSECT and EXCEPT operators
- Write queries with the APPLY operator

Module 11: Implement window functions in queries

- Understand window functions
- Impement window functions

Module 12: Use PIVOT and grouping sets in queries

- Implement PIVOT in queries
- Implement grouping sets in queries

Module 13: Use stored procedures in queries

- Query data with stored procedures
- Interact with stored procedures using input and output parameters
- Write simple stored procedures
- Pass dynamic SQL to SQL Server

Module 14: Implement programming features in Transact-SQL

- Understand T-SQL programming elements
- Implement loops and conditions in T-SQL queries

Module 15: Add error handling to queries

- Understand SQL Server error handling
- Implemet structured exception handling

Module 16: Use transactions in queries

- Understand database transactions
- Implement transactions in T-SQL

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Module 1: Introduction to Transact-SQL

- What is Transact-SQL
- The `SELECT` statement
- The `WHERE` clause
- Sorting results
- Calculations and `CASE` expressions

Module 2: Joining Tables

- The `JOIN` clause
- Inner, outer, self, and cross joins

Module 3: Filtering and Sorting Results

- `ORDER BY` clause
- `WHERE` clause filtering
- Limiting rows returned
- `NULL` handling

Module 4: SQL Server Data Types

- String and temporal data types
- Data type usage best practices

Module 5: Inserting, Updating, and Deleting Data

- Insert new records
- Update existing data
- Delete data safely

Module 6: Using SQL Server Functions

- Function types in SQL Server
- Data conversion functions
- Logical functions
- Handling `NULL`s

Module 7: Aggregating Data

- Aggregation methods
- `GROUP BY` and `HAVING` clauses
- Filtering aggregated results

Module 8: Subqueries

- Scalar, multi-valued, and correlated subqueries
- Using `EXISTS` with subqueries

Module 9: Table Expressions

- Views
- Table-valued functions
- Derived tables
- Common table expressions (CTEs)

Module 10: Combining Data Sets

- `UNION`, `INTERSECT`, and `EXCEPT`
- `APPLY` operator

Module 11: Window Functions

- Understanding and implementing window functions

Module 12: PIVOT and Grouping Sets

- Data pivoting
- Grouping sets for advanced aggregations

Module 13: Stored Procedures

- Executing stored procedures
- Input/output parameters
- Creating simple procedures
- Using dynamic SQL

Module 14: Programming Features in T-SQL

- Loops and conditions

Module 15: Error Handling

- SQL Server error handling methods
- Structured exception handling

Module 16: Transactions

- Transaction concepts
- Implementing transactions in T-SQL

Additional Course Details

Nexus Humans 55366 Querying Data with Transact-SQL 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 55366 Querying Data with Transact-SQL 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 55366 Querying Data with Transact-SQL?

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 5-day 55366 Querying Data with Transact-SQL course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the 55366 Querying Data with Transact-SQL training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for 55366 Querying Data with Transact-SQL?

Yes, we provide corporate training, dedicated training, and closed classes for 55366 Querying Data with Transact-SQL. 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 55366 Querying Data with Transact-SQL?

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 55366 Querying Data with Transact-SQL training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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