

Transact SQL

Modality: On Demand

Duration: 9 Hours

About this course:

Transact SQL or T-SQL is a standardized computer language for querying, altering and defining relational databases, using declarative statements. While this course is specifically focused on Microsoft product, most of what you learn will be applicable to any SQL based database including Oracle, DB2, MySQL etc. This course does not assume that you have any prior knowledge of T-SQL. If you understand relational database concepts it will be a benefit, however it is not a prerequisite.

The average salary for SQL Database Administrator is **\$77,428** per year.

Course Objective:

After completing this course, students will be able to:

- Filter Records with the Where Clause
- Sort Result Sets
- Query Processing by SQL Server
- Performance Testing & Measuring
- Join Multiple Tables

Audience:

This course is intended for:

- Programmer

Prerequisites:

- Basic understanding of databases and IT systems.

Suggested prerequisites courses:

- [Introduction to SQL Databases - MOC On Demand \(MS-10985\)](#)
- [Developing SQL Databases - MOC On Demand \(MS-20762\)](#)

Course Outline:

Introduction

Module 1: T-SQL Querying Concepts

- Lesson 1: SQL Dialects
- Lesson 2: Formatting
- Lesson 3: ASCII vs Unicode
- Lesson 4: Data Types
- Lesson 5: NULL
- Module Summary
- Knowledge Check

Module 2: Select, From, Where and Order By Clauses

- Lesson 1: Getting Started
- Lesson 2: Case-Sensitive Collation
- Lesson 3: Aliasing Columns and Tables
- Lesson 4: Filtering Records with the Where Clause
- Lesson 5: Sorting Result Sets
- Module Summary
- Knowledge Check

Module 3: Batches & Transactions

- Lesson 1: Batch
- Lesson 2: Transaction
- Lesson 3: Query Processing by SQL Server
- Lesson 4: Locking
- Module Summary
- Knowledge Check

Module 4: Group By and Having Clauses

- Lesson 1: Group By
- Lesson 2: Having
- Lesson 3: Aggregates
- Lesson 4: Logical Processing Order
- Module Summary
- Knowledge Check

Module 5: Multi-Tables Queries with Joins and Sets

- Lesson 1: Union and Union All
- Lesson 2: Except and Intersect
- Lesson 3: Inner Joins
- Lesson 4: Outer Joins
- Lesson 5: Joining Multiple Tables
- Module Summary
- Knowledge Check

Module 6: Table Expressions

- Lesson 1: Common Table Expressions
- Lesson 2: Temp Tables
- Lesson 3: With Results Sets
- Module Summary
- Knowledge Check

Module 7: Affecting Query Performance

- Lesson 1: How SQL Server Accesses Data
- Lesson 2: Performance Testing & Measuring
- Lesson 3: Indexes and Statistics
- Lesson 4: Execution Plans
- Module Summary
- Knowledge Check

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